



unicef
United Nations
Interregional Crime and Justice
Research Institute



PRESIDENZA DEL CONSIGLIO DEI MINISTRI
Dipartimento Politiche Antidroga

PROMOTING A GENDER RESPONSIVE APPROACH TO ADDICTION

Promoting a Gender Responsive Approach to Addiction

Edited by
Alessandra Liquori O'Neil, Jonathan Lucas

UNICRI Publication n. 104
Turin, June 2015

The views expressed are those of the authors and do not necessarily reflect the views of UNICRI and of the Department for Anti-drug Policy of the Italian Government.

Authors are not responsible for the use that might be made of the information contained in this publication.

Contents of this publication may be quoted or reproduced, provided that the source of information is acknowledged.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations, UNICRI and the Department for Anti-drug Policy of the Italian Government, concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The mention of specific institutions, companies or of certain manufacturers' products does not imply that they are endorsed or recommended by UNICRI and/or the Department for Anti-drug Policy of the Italian Government in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

Cover illustration and text revision:

Marina Mazzini, Information and Communication Unit, UNICRI.

Beniamino Garrone, graphic designer, UNICRI.

This publication was made possible thanks to the support of the Department for Antidrug Policy of the Government of Italy within the framework of the Agreement signed in Rome on 22 December 2009, regarding the implementation of the DAWN Project (Drugs and Alcohol Women Network).

Further information on the scope and objectives of the project is available at www.unicri.it; www.dadnet.it; www.politicheantidroga.it

UNICRI Publication No.104, Turin, June, 2015

Copyrights: Dipartimento Politiche Antidroga, Italy; UNICRI, 2015

Authorship and acknowledgments

This volume was prepared by the United Nations Interregional Crime and Justice Research Institute with the support of the Department for Anti-drug Policy of the Government of Italy. It is one of the tools prepared within the framework of the DAWN Project (Drugs and Alcohol Women Network) promoted and funded by the Department for Anti-drug Policy, which aims to highlight the importance of a gender responsive approach in the prevention, treatment and recovery of substance use.

Contributors are, in alphabetical order:

Agabio, Roberta
Andreotti, Alessandra
Blazquez, Alicia
Bo, Alessandra
Brizi, Alice P.
Burrioni, Paola
Carpignano, Iulia Alexandra
Cohen, Mari
Colom, Joan
Coronado, Marta
Covington, Stephanie S.
Ferri, Marica
Franconi, Flavia
Galanti, Rosaria
Garcia Esteve, Lluisa
Geldschläger, Heinrich
Genetti, Bruno
Gessa, Gian Luigi
Gilchrist, Gail
Ginés, Oriol
Grella, Chistine E.
Icenhower, Kathryn
Imaz, M. Luisa
Israelowitz, Richard
Liquori O'Neil, Alessandra
Lucas, Jonathan L.
Luda di Cortemiglia, Vittoria
Miller, Niki
Mollica, Roberto
Montanari, Lidia
Moses, Yael
Plaza, Montse
Ponce, Alvaro
Pons Rabasa, Alba
Reznik, Alexander
Roda, Ester
Sabet, Kevin A.
Salvati, Daniela
Segura, Lidia
Serpelloni, Giovanni

Shihadeh, Teddi
Simeoni, Elisabetta
Simon, Roland
Sperotto, Milena
Torrens, Marta
Torres, Anna
Valls, Ester
Vigna Taglianti, Federica
Zermiani, Monica
Zweben, Joan E.

Documents and materials from Agencies and Organizations listed below provided important scientific and technical background for the preparation of the volume:

Council of Europe, Pompidou Group
United Nations Development Programme
United Nations Office on Drugs and Crime
United Nations Entity for Gender Equality and the Empowerment of Women (UNWOMEN)
World Bank
World Economic Forum
World Health Organization

Special thanks go to Elisabetta Simeoni, Coordinator Service I, Department for Anti-Drug Policy of Italy and Gender Equality Rapporteur of the Pompidou Group, Council of Europe, for her constant guidance and support throughout the making of this book; to Prof. Kevin A. Sabet, Director, Drug Policy Institute, and Assistant Professor, Department of Psychiatry, Division of Addiction Medicine, University of Florida College of Medicine (USA) goes our gratitude for his patient guidance and useful critiques of this work and for his initial advice and contacts in the early stages of conceptual inception and subsequent revisions; We also wish to thank the DAWN expert network members who contributed at various levels with their suggestions, recommendations and active participation, particularly during the two DAWN Plenary Conferences held in Rome (First Plenary Conference, 28–30 March 2011 and Second Plenary Conference, 20–21 June 2012).

Table of Contents

p. 7 *Forewords*

p. 8 *Executive Summary*

Introduction

p. 12 Project DAWN: mainstreaming gender in the prevention, treatment and recovery of addiction, a policy and operational agenda, *Alessandra Liquori O’Neil, Jonathan Lucas*

Chapter I

p. 29 Gender equality and the advancement of women: key international instruments and documents focused on gender differences, *Daniela Salvati, Kevin A. Sabet*

p. 38 The promise of gender mainstreaming, *Niki Miller*

Chapter II

p. 73 What is the role of gender in prevention? *Kevin A. Sabet, Mari Cohen, Marica Ferri*

p. 87 Gender differences in the effectiveness of the “Unplugged” prevention programme, *Federica Vigna-Taglianti, Rosaria Galanti*

p. 95 Differences in the risk factors for illicit drug use among young females and males aged 15-19 years, *Giovanni Serpelloni, Bruno Genetti, Alessandra Andreotti, Milena Sperotto, Iulia A. Carpignano, Monica Zermiani*

p. 109 Misuse and abuse of prescription drugs among women: an urgent public health problem, *Elisabetta Simeoni, Giovanni Serpelloni, Roberto Mollica*

p. 118 Preventing and addressing intimate partner violence, *Joan Colom, Lidia Segura, Ester Valls, Heinrich Geldschläger, Oriol Ginés, Montse Plaza, Álvaro Ponce*

Chapter III

p. 141 Gender responsive treatment approaches for women with substance use disorders, *Christine E. Grella*

- p. 176 Sex differences in barriers to accessing substance abuse treatment, a qualitative study, *Gail Gilchrist, Alicia Blazquez, Alba Pons Rabasa, Marta Coronado, Joan Colom, Marta Torrens*
- p. 195 Gender differences in heroin addiction and treatment in the Italian “VEdeTTE” cohort study, *Paola Burroni, Federica Vigna-Taglianti*
- p. 210 Successful examples of promoting gender-responsive approaches to drug treatment programs, *Teddi Shihadeh*
- p. 222 The importance of developing a reliable knowledge base in the treatment offered: the EU experience, *Marica Ferri, Alessandra Bo, Linda Montanari, Roland Simon*
- p. 245 Treatment of alcohol use disorders (AUDs): a sex-gender approach, *Flavia Franconi, Gian Luigi Gessa, Roberta Agabio*
- p. 275 Former Soviet Union immigrant women: drug use profiles and special needs, *Richard Isralowitz, Alexander Reznik*

Chapter IV

- p. 309 Understanding and applying gender differences in recovery, *Stephanie S. Covington*
- p. 331 Sexually assaulted women and substance use, *Lluïsa Garcia Esteve, Ester Valls, Anna Torres, M. Luisa Imaz, Ester Roda*
- p. 346 Family-based recovery: The SHIELDS for Families “Exodus” programme, *Kathryn Icenhower*
- p. 352 Project Pride: new pathways to recovery, *Yael Moses, Joan E. Zweben*

Annex I

- p. 363 A collection of good practices in the prevention, treatment and recovery of female addiction, *Alice P. Brizi, Vittoria Luda di Cortemiglia*

Annex II

- p. 399 DAWN First Plenary Conference: conclusions and recommendations, *Rome, 28-30 March 2011*

Annex III

- p. 403 United Nations - Economic and Social Council - Commission on Narcotic Drugs Fifty-Fifth Session, 12-16 March 2012. Resolution 55/5

Forewords

In 2010, the Department for Anti-drug Policy of the Government of Italy requested the assistance of UNICRI to establish a network of professionals to advocate for gender responsive policies and practices among policy makers and professionals. These professionals would also become focal points for supporting the amelioration of working practices in the prevention, treatment and recovery of addiction, and to more effectively meet the needs of women at risk or already using drugs.

With its long-standing expertise in research on vulnerable population and special groups, gender based violence and the social consequences of addiction, UNICRI would bring a rich expertise to the development of this programme, as well as mobilize and engage its worldwide expert network.

Almost two years later, thanks to the close collaboration between the International Relations Office of the Department for Anti-drug Policy of Italy and UNICRI, Project DAWN – Drugs and Alcohol Women Network – has grown to become a well recognized reference centre for professionals and policy makers in Italy and in countries of the Mediterranean Basin. It has established a solid and energetic network of professionals.

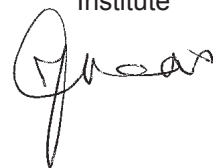
In close relationship with the UNODC and the WHO, Project DAWN has contributed to the adoption of instruments and tools to assist the international community in the establishment of gender responsive prevention treatment and recovery programmes, such as guidelines, training modules and web-based platforms for distance learning.

This book represents one of the tools originating from this project. It is a collection of essays, case studies, working experiences and good practices implemented at various levels, in different countries. It also contains essays on gender responsive services, the nature of the services they should offer, and how they should be structured to respond to the needs of women. This book aims to contribute to a reflection on the progress we have made in the implementation of the “gender mainstreaming approach” set forth in the Beijing Declaration and in the implementation of the good practices in this field. It examines the gender responsive approach and the place and the role of women in the post 2015 development era.

Giovanni Serpelloni
Head
Department for Anti-drug Policy
Italy



Jonathan Lucas
Director
United Nations Interregional
Crime and Justice Research
Institute



Executive Summary

This publication originates from the work carried out within the framework of the project entitled "Drugs and Alcohol Women Network" (DAWN), initiated by UNICRI in 2010 with the support of the Department for Anti-drug Policy of the Government of Italy.

Project DAWN aims to establish a network of professionals who can actively advocate and promote interventions tailored for women to address the risks related to alcohol and drug abuse. The project promotes the development of a gender-sensitive approach among social and health practitioners to better meet the specific needs of female alcohol and drug abusers.

Mainstreaming gender-sensitive approaches within professional and policy practice is an essential and powerful tool, at the grass-root of all development efforts in the post-2015 Millennium Development Agenda¹. There can be no effective sustainable development as long as discrimination of sexes/gender exists². The Millennium Development Goals Report 2010 stressed that access to care for women was still very problematic in several regions.

After the Beijing Conference, the ECOSOC in 1997, defined the gender mainstreaming "conceptual approach" as guaranteeing a perspective which valued the diversity between men and women by putting their respective needs, concerns and experiences at the centre of each policy and programme: "Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. The ultimate goal is to achieve gender equality"³.

In the field of addiction prevention and recovery, many instruments have been developed over the years by the international community to address the relationship between gender and addiction. However, Commission on Narcotic Drugs resolution 55/5 entitled "Promoting strategies and measures addressing specific needs of women in the context of comprehensive and integrated drug demand reduction programmes and strategies", represents an important cornerstone towards the attainment of gender responsive addiction policies and programmes. The resolution calls on governments "to consider incorporating female-oriented programmes in their drug policies and strategies" and encourages them "to integrate essential female-specific services in the overall design, implementation, monitoring and evaluation of policies and programmes addressing drug abuse and dependence"⁴.

¹ Recently, the centrality of gender equality and women's empowerment to sustainable development has been reiterated in various documents. The Rio+20 outcome document, the report of the High-level Panel of Eminent Persons, the UNDG report "A Million Voices", among others, have all emphasized the importance of a strong focus on gender equality.

² Jones, N. Holmes, R. Espey, J. Gender and the MDGs: A gender lens is vital for pro-poor results. London: Overseas Development Institute, 2008.

³ ECOSOC agreed conclusions 1997/2 of 18 July 1997, in Report of the ECOSOC for 1997.

⁴ ECOSOC, 2012 Before the 2012 CND Resolution, other documents called on the need to acknowledge the existence of specific needs of particular groups of the population such as women, starting from the

Project DAWN has also developed a series of tools to assist professionals and policy makers in their efforts to mainstream gender in their working agenda, such as best practice manuals, specific guidelines prepared in collaboration with the UNODC and a comprehensive internet-based learning platform, available 24/7 on a dedicated website.

Along with the other tools and instruments developed within the project, the publication, "DAWN - Drugs and Alcohol Women Network: Promoting a Gender Responsive Approach to Addiction", provides international professionals and decision makers with a practical guide to mainstream gender in the policy and programmes of substance abuse prevention and recovery.

Protective and resilience factors, as well as the association with violence and trauma in the development of addiction, are some of the factors considered in the publication. The special characteristics of the female recovery process is also analysed. Good practices implemented in specific settings in various regions of the world and lessons learned on various aspects of female addiction are illustrated, as well as epidemiological data on the trends of young male and female drug users.

The publication also raises the attention on the serious and complex problem of the misuse and abuse of prescription drugs, which requires urgent attention.

As with other gender-related health aspects, the recognition that female substance abuse has different roots than male substance abuse, should serve to re-direct working practices of private and public services towards the goal of ensuring that women and men receive information, assistance and care tailored to their needs. In this process of recognition and re-direction, the consideration of female addiction could be reframed in a more coherent policy that would take into account its social and health determinants. Accessibility, affordability and acceptability of health and social services would also be aligned with women's needs. Policy coherence across different areas would facilitate the effective use of resources in order to close gaps in treatment, overcome barriers to equitable care and build clinical capacity in creating a female focused research agenda.

Further information on the scope and objectives of the project is available on the UNICRI website: <http://www.unicri.it/>, in a dedicated website in Italian, <http://dadnet.it> and on the Department for Anti-drug Policy website: <http://www.politicheantidroga.it>

20th Special Session of the General Assembly in 1998, during which Member States adopted the Political Declaration (A/RES/S-20/2), the Declaration on the Guiding Principles of Drug Demand Reduction (A/RES/S-20/3), as well as the "Measures to enhance international cooperation to counter the world drug problem" (A/RES/S-20/4). After that historical session of the General Assembly, a series of documents were produced at the international level, focusing on women, their specific needs and health related issues.

Introduction

Project DAWN: mainstreaming gender in the prevention, treatment and recovery of addiction, a policy and operational agenda

Alessandra Liquori O’Neil (1) Jonathan Lucas (2)

(1) Programme Officer, United Nations Interregional Crime and Justice Research Institute

(2) Director, United Nations Interregional Crime and Justice Research Institute; Former Secretary, International Narcotics Control Board, Secretary, Commission on Narcotic Drugs

Why a project on gender and addiction?

In 2012, the Commission on Narcotic Drugs, in its resolution 55/5 entitled “Promoting strategies and measures addressing specific needs of women in the context of comprehensive and integrated drug demand reduction programmes and strategies”, invited the United Nations Interregional Crime and Justice Research Institute (UNICRI) to continue to assist and support Member States in developing and adapting measures and strategies, at the national, regional and international levels, addressing the specific needs of women as an essential element of more effective, just and human rights-based policies.

UNICRI is mandated to address crime prevention and criminal justice policy and practice through research, training and documentation diffusion. The call from Member States in 2012 followed the launch, one year earlier, of the project entitled “Drugs, Alcohol and Women Network” (DAWN), with the support of the Department for Anti-drug Policy of the Government of Italy.

In the Declaration on the Guiding Principles of Drug Demand Reduction (General Assembly resolution S-20/3, annex) the international community indicated that demand reduction programmes should be accessible to those groups most at risk, taking into account differences in gender, culture and education. Resolution 55/5 is motivated by the concern that women with substance abuse problems are often deprived of or limited in their access to effective treatment that takes into account their specific needs and circumstances. It represents an important cornerstone. For the first time, women and girls are identified as the target group for specific interventions, calling on governments to recognize their unique needs, when designing and implementing drug policies. The resolution specifically invites governments “to consider incorporating female-oriented programmes in their drug policies and strategies” and encouraged them “to integrate essential female-specific services in the overall design, implementation, monitoring and evaluation of policies and programmes addressing drug abuse and dependence”.

There is nowadays ample evidence in the literature that biological and psychosocial differences between men and women influence the prevalence,

presentation, co-morbidity, and treatment of substance use disorders¹. Reasons for substance use initiation differ significantly in young women and men. Young women may start using drugs to cope with or overcome social anxiety and/or depression, while curiosity is often the main reason for substance use initiation in boys. Cigarette smoking and stimulants can be used by girls as part of their strategy to achieve and maintain their body image². Females also show a tendency to experience with drugs at a younger age than males, possibly due to their earlier contacts with older age groups. Women also show differences in drug use. For example, they tend to be more susceptible than males to being admitted to emergency rooms for abuse of prescription drugs.

Risk factors and signs associated with substance abuse are different between males and females. While men are more likely than women to become addicts³, studies have shown that compared to males, females are more affected by the consequences of substance abuse; they develop dependence more quickly⁴. Females are more likely to develop drug dependence as a result of post-traumatic stress disorder, since they are more at risk of physical abuse. Women who develop substance abuse report more severe mental and physical problems and experience more health and social-related consequences than men⁵. Women often have more difficulties in stopping the use of addictive substances and are more susceptible to relapse. These gender differences can have repercussions on treatment outcomes⁶.

Studies focusing on gender differences and treatment of drug addiction have shown the existence of biological and psychological differences, as well as social and environmental factors, which can influence the motivation to seek assistance, the type of treatment or service and their effectiveness. For example, evidence shows that women respond and adhere better to treatment if included in psychotherapy and group counseling. Sexual education and family planning, as well as diagnosis of psychiatric co-morbidity, eating disorders and trauma related to sexual abuse and violence are priority issues that need to be integrated in the treatment agenda for women.

Gender differences, as recommended in the principles for the treatment of drug addiction elaborated by UNODC/WHO in 2008⁷ and in the NIDA guidelines of 2012⁸, should also keep into account the stigmatization of addicted women and the need for services to take the necessary actions to address this issue in all aspects

¹ Back SE, Contini R, Brady KT, Substance Abuse in Women: Does Gender Matter?, *Psychiatric Times*. 2006, Vol. 24 No. 1.

² Brady K.T., Back S.E., Greenfield S.F. (eds.), *Women and Addiction, A Comprehensive Handbook*, The Guilford Press, 2009.

³ A U.S. National Survey on Drug Use and Health, carried out in 2008, showed that 11.5% of 12 year-old and older males had a substance abuse or dependence problem, compared with 6.4% of females (U.S. Department of Health and Human Services, 2008).

⁴ Amaro, H., Blake, S. M., Schwartz, P. M., Flinchbaugh, L. J., Developing theory-based substance abuse prevention programs for young adolescent girls, *Journal of Early Adolescence*, 2001, 21(3), 256-293.

⁵ Bradley, K.A.; Badrinath, S.; Bush, K.; et al., Medical risks for women who drink alcohol, *Journal of General Internal Medicine*, 1998, 13:627-639.

⁶ Harvard Medical School, *Addiction in Women*, Newsletter, January 2010.

⁷ UNODC/WHO, *Principles of Drug Dependence Treatment*, 2008.

⁸ NIDA, *Principles of Drug Addiction Treatment: A Research-Based Guide*, (Third Edition), 2012.

of care. This is most important in the case of alcohol or drug-dependent pregnant women and women with underage children.

With regard to prevalence of drug use, throughout the world and across all substances, levels of illicit drug use are lower in females than in males. The United States shows smaller differences than other developed countries, with differences in drug use in 2010 about one-third lower for females than males, and 40% fewer females currently using drugs. In most of Europe, female drug use is approximately half that of males. In middle-income countries, the drug-use disparity between sexes is greater. In Argentina and Brazil in 2010 and 2005, respectively, female drug use was two-thirds lower than that of males. Other countries show the largest differences between the sexes, with surveys in India, Pakistan, Indonesia, and the Philippines showing female prevalence of drug use to be 13% or lower than male use^{9 10 11}. Statistics available from many countries, however, must be interpreted with caution. The lack of resources to collect reliable data and limited awareness of the problem, as well as negative attitudes towards women's substance abuse and their subordinate position in some societies, may result in women being underrepresented in epidemiological samples or not answering surveys and interviews accurately. In addition, many women who use drugs may be homeless or involved with sex work and thus are underrepresented in samples^{12 13}.

The differences in drug use prevalence are the result of a few factors. Socio-cultural barriers and "traditional" roles of women in society may prevent them from using drugs. Women who do not work or have access to disposable income often do not have the means to purchase drugs. Urbanization may also be a factor, as urban areas tend to have a higher prevalence of drug use. However, with gender barriers breaking down in many countries, and expanding urbanization, improved access may lead to an increase in female drug use¹⁴.

Project DAWN has been working closely with experts, governments and other United Nations agencies and programmes such as the UNODC, the WHO and the UNWOMEN to foster the mainstreaming approach¹⁵ in addiction prevention and recovery and to raise awareness on the unique needs of women and girls affected by addiction. The project has established a network of professionals who can actively advocate and promote interventions tailored for women to address the risks related to alcohol and drinking abuse.

⁹ United Nations Office on Drugs and Crime World Drug Report 2012.

¹⁰ Ibid.

¹¹ United Nations Office on Drugs and Crime. Substance Abuse Treatment and Care for Women: Case Studies and Lessons Learned, 2004.

¹² Health Canada (2001). Best Practices: Treatment and Rehabilitation for Women With Substance Use Problems. Available from: http://www.hc-sc.gc.ca/hc-ps/pubs/adp-apd/bp_women-mp_femmes/index-eng.php

¹³ United Nations Office on Drugs and Crime World Drug Report, 2012.

¹⁴ Ibid.

¹⁵ "Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality" (ECOSOC, 1997).

As stipulated in resolution 55/5, female substance abuse has different “roots” and “routes” than male substance abuse. This will hopefully open the way towards future policies and practices re-framed and re-directed towards the goal of ensuring that women and men receive information, assistance and care tailored to their needs, according to a gender mainstreaming approach. Project DAWN will continue to assist in creating more synergy among all actors and to facilitate optimization of resources. The goal is to offer gender-responsive programmes, delivered in “an environment through site selection, staff selection, program development, content, and material that reflects an understanding of the realities of women’s lives, and is responsive to the issues of the clients¹⁶.

Project DAWN and the Post-2015 Millennium Development Agenda

Project DAWN was initiated within the guidelines of the United Nations actions to promote gender equality and the empowerment of women, as reflected in the Millennium Development Goals with an emphasis on health equality, child and maternal health, HIV/AIDS and addiction related diseases. The Millennium Development Goals Report 2010 stressed that access to care for women was still very problematic in several regions. The project aims to provide a substantive contribution to the formulation of coherent policies to assist in overcoming barriers to equitable care, build clinical capacity in the development of new treatment and recovery models and create a female-focused addiction research agenda. The project has identified three factors which have a direct influence on the effectiveness and the efficacy of the provision of gender responsive addiction services to women:

- **accessibility**, both at the individual and at the organizational level (distance, opening/ closing hours; length of consultation, waiting lists);
- **affordability**, pertaining to the individual or household financial status, health insurance protection and to the health financing system in place in the countries and the type of coverage offered to citizens;
- **acceptability**, individual motivation to change, individual perception of effectiveness of services delivered, of staff, of level of stigma based on sex, race, religion, ethnicity.

Project DAWN aims to further promote the debate among its expert network on how to close the current gaps in the provision of drug abuse treatment services to women, in the context of the current debate on universal health coverage and universal access to health¹⁷. The above mentioned factors are, in fact, key points in the Post-2015 Millennium Development Agenda debate on health provisions.

¹⁶ Covington. S., Creating gender-responsive programs: The next step for women’s services, *Corrections Today*, February 2001, 63, 85-87.

¹⁷ Evans D.B., Hsu J.& Boerma T., “ Universal health coverage and universal access”, *Bulletin of the WHO* 91:8, 2013

However, they become critically important in those settings where the status of women may be diminished due to discrimination and inequality, as these affect not only the possibility for health service access, but, more broadly, the right to obtain recognition at the political, legislative and economic levels.

As the debate on the Post-2015 Millennium Agenda progresses, project DAWN seeks to provide a strong contribution to the identification and application of a “stand alone goal”¹⁸, encompassing all female-related issues as reflected in the Millennium Development Goals. This effort entails a systematic and coordinated action by all parts of society to support women’s equity, equality and empowerment, through strengthening the rule of law, the political and the education systems and the economic and social integration of women, taking into consideration their reproductive role and the burden of the unpaid care and unpaid work weighing on women and girls worldwide.

The need for integration of goals becomes even clearer when one examines the achievements of Goal n.3 of the Millenium Declaration “gender equality and empowerment of women”. Notwithstanding the many instruments and tools developed to address the gender divide and the tangible progress made in the health and education fields, the success and effectiveness of the MDGs is often overshadowed by the modest performance that countries, including the more developed ones, show in the social and economic integration areas, where gender inequality is still high. According to the 2013 UNDP Human Development Report¹⁹, the world average score for the Gender Inequality Index (GII) in 2012 was equal to 0.463, indicating almost 42% loss in potential human development due to gender inequality.

A similar approach and outcome is reflected in the 2013 World Economic Forum Report on Gender Equity, which measured a series of economic, educational and political benchmarks, to show the gaps that have been closed in the health, education, economic participation and political empowerment sectors. The 136 countries included in the Report, representing over 90% of the world’s population, have closed almost 96% of the gap in health outcomes between women and men and almost 93% of the gap in educational attainment. However, the gap between women and men in economic participation and political empowerment remains wide: only 60% of the economic outcomes gap and only 21% of the political outcomes gap have been closed²⁰. In both reports, gender inequality and discrimination are considered as some of the principal obstacles/factors in slowing the progress towards the achievement of the Millennium Goals and the main factor “to cause and perpetuate poverty and vulnerability in the society as a whole”²¹.

¹⁸ See more at: <http://www.unwomen.org/en/news/stories/2013/10/lakshmi-puri-speech-on-sexual-andreproductive-health-rights#sthash.PmC5dvoj.dpuf>

¹⁹ Human Development Report, UNDP, 2013

²⁰ Report on Gender Equity, World Economic Forum, 2013.

²¹ Jones N., Holmes R., Espey J. Gender and the MDGs: A gender lens is vital for pro-poor results. London: Overseas Development Institute, 2008.

Project DAWN objectives and concrete interventions to promote a gender responsive approach to addiction

Project DAWN includes a number of interventions targeted at:

- Girls and women who do not use drugs, but are exposed to this risk;
- Girls and women who use drugs occasionally;
- Girls and women who use drugs regularly and/or are affected by substance use and addictive disorders.

The secondary targets of the project are the policy makers and the professionals, who require a deeper understanding and knowledge of gender differences in order to better respond to the prevention, treatment and recovery needs of women. Social workers, parents and teachers are also included. Training on gender issues should be provided to them so that they are in a better position to deal with the education of young women who are currently not using drugs, but are at risk of having contact with them.

Sensitizing teachers, parents, and local social and health services of the importance of gender differences in drug addiction will positively affect the lives of young and adult women, since these groups are among their frequent contacts²². Parents in particular are a target for interventions, especially those caring for girls in their adolescence. In this regard, Project DAWN is also developing educational strategies to counter the often negative effects of the media, its portrayal of women and its message to women.

Project DAWN has promoted the development of a number of professional tools, such as best practice manuals, internet-based learning platform, and training courses, to support the improvement of substance abuse prevention and recovery policies and practices.

With regard to policy guidelines, project DAWN has developed, in collaboration with the UNODC, guidelines for planning and delivering prevention, treatment and rehabilitation programmes that can be relevant and effective for women and girls. To assist in the professional updating, Project DAWN has developed a comprehensive distance learning platform, available free of charge 24/7 on a dedicated website. The platform provides access to user friendly learning modules on specific aspects of women's health, addiction treatment and recovery. The modules are available in the main UN languages and are regularly updated through the direct contributions of the network of professionals established through the project.

Information days, special events and conferences are also used by the project as a strategy to raise awareness on specific topics related to women and addiction. In this regard, a series of tool-kits have been developed to assist local authorities to organize information events, addressed to various audiences such as children, adolescents, professionals and policy makers. Information events are regularly organized on the occasion of the celebration of relevant United Nations

²² UNODC - WHO, Principles of Drug Dependence Treatment, 2008.

Days, in Italy and in countries of the Mediterranean Basin, with the support of the local project's focal points and with participation of high school students, mental health professionals and policy makers.

Information/awareness events are also held regularly within drug addiction and mental health services as well as rehabilitation communities with participation of girls who are not affected by drugs or adult women who have addiction disorder. The participation of role models and testimonials brings a drug free lifestyle example by sharing their former experience with drugs²³. On such occasions, women and young girls are able to interact with each other and ask questions on problems related to drugs. The project also supports the setting up of help-lines in schools, universities and women associations, in order to assist women and girls in avoiding drug-facilitated sexual abuse risks, drug abuse related violence and to prevent exploitation of minors.

Project DAWN will also work with the WHO to support the application of the good practices in the management of pregnancy in women who use drugs²⁴, are affected by infectious diseases and in the management of their newborns. These initiatives also include training and specific professional information on child care and delivery, as well as support to parental functions. Project DAWN has also adopted a protocol, developed and piloted in Italy, to promote clinical interventions for the safe procreation in couples with differing HIV serological status.

National and international Expert Working groups have been identified and are actively involved in the project's implementation, representing the focal points in each country. Questionnaires and surveys have been administered to women clients of treatment centers, to better understand their expectations and identify their needs. Data are currently being analysed and additional surveys are planned to take place with the involvement of the Mediterranean Basin countries which are part of the Council of Europe Pompidou Group MedNet.

The focus of the project is on gender differences in addiction. Its added value is the creation of an international network of social and health professionals who can support and lead in the development of a gender-sensitive approach to better meet the specific needs of female drug abusers. This network is instrumental in achieving the necessary re-orientation of working practices of private and public services in the treatment, prevention and rehabilitation strategies of women.

The DAWN manual: good practices for a gender responsive approach to addiction

The manual "DAWN - Drugs and Alcohol Women Network: Promoting a Gender Responsive Approach to Addiction" represents one of the key tools that the project is developing to assist professionals and decision makers to mainstream

²³ On the occasion of the 2013 UN Day on Women, Project DAWN organized in collaboration with local drug addiction services and the San Patrignano Rehabilitation Community, an awareness event on gender differences in drug addiction, addressed to high school students. The event was held simultaneously in nine Italian cities and involved more than 2.000 students.

²⁴ See also Gender Equity and Human Rights at www.who.int/gender

gender in the policy and practice of substance use prevention and recovery. The manual is a collection of good practices, lessons learned and case studies from experts, specialized agencies and governmental organizations, implemented at various levels, in different countries. A number of contributions also provide an in-depth reflection on the nature of a gender responsive service and how it should be structured to respond to the needs of women.

Chapter I opens with an overview of the United Nations actions towards gender equality and of the key international instruments and documents focused on gender, including various instruments dealing with violence against women. The next contribution, by Niki Miller, Senior Programme Associate at Advocates for Human Potential, provides an articulated essay on the concept of gender mainstreaming and on how close the international community has come to keeping the promises of the 1995 Beijing Conference. Prof. Miller moves to discuss the connections between gender and addiction, the relevant biological and sociological aspects and the historical context in which female addiction has developed. The implementation of the “gender mainstreaming approach” can only be effective if society recognizes the value of recovery as a continuum involving the individual, the communities and the system of care.

In Chapter II, two essays, one from Kevin A. Sabet, Director of the Drug Policy Institute at the University of Florida and coll. and the other from Federica Vigna-Taglianti, Department of Clinical and Biological Sciences, University of Turin and coll. discuss the role of gender and its impact on the effectiveness of various prevention programmes. Both contributions analyze the prevalence of use for various substances by males and females, as well as the different risk factors and signs associated with substance use during adolescence.

Studies have shown that compared to males, females are more affected by substance abuse consequences and acquire dependency more quickly. Women show differences in drug use as compared to males in relation to age groups and are more susceptible than males to being admitted to emergency rooms for abuse of prescription drugs. Females are more likely to develop drug dependence as a result of post-traumatic stress disorder, and they tend to try substances at a younger age than males due to earlier contact with older age groups. Women also differ in the motivation and modalities for acquiring drugs. For instance, women tend to use substances to lose weight, increase sexual activity, overcome inhibitions, reduce stress, increase self-confidence, and to elevate moods. Also, females are frequently sold drugs without being asked for their age and are more likely to receive free drugs in exchange for other things, like sexual favours. Males mainly use drugs to enhance their position within their social groups and to seek excitement²⁵.

Prof. Vigna Taglianti describes the programme “Unplugged”, a social influence school-based curriculum for the prevention of tobacco, alcohol and drug use among adolescents, which was developed in the framework of the European Drug Abuse Prevention study in 2003. Supported by the European Community Public Health Program, “Unplugged” has involved more than 7,000 pupils from seven European countries between 2004 and 2007. Through the use of interactive

²⁵ Amaro, H., Blake, S. M., Schwartz, P. M., Flinchbaugh, L. J., Developing theory-based substance abuse prevention programs for young adolescent girls, *Journal of Early Adolescence*, 2001, 21(3), 256-293.

techniques, teachers provided information on the effects of drugs, as well as playing a leading role in the development of student's interpersonal skills (assertiveness, problem solving, self control and creative thinking) as well as intrapersonal skills such as non verbal communication, expression of negative feelings, coping skills. The curriculum effectiveness was evaluated in a randomized trial.

Two contributions from the Department for Anti-drug Policy in Italy, analyse the differences in the risk factors of illicit drug use among young Italian females and males aged 15-19 years and the characteristics and prevalence of prescription drugs misuse in women. In the first contribution, by Giovanni Serpelloni and coll., the data collection is based on the ESPAD Study²⁶ and the risk factors for consumption of psychotropic substances are assessed through a logistic regression model. The sample surveyed is constituted by 35,980 students, of which 50% were females. Approximately 20% of students had used drugs in the previous year and the most used substance was cannabis, followed by cocaine and sedatives. Compared to males, females are more likely to start using drugs if offered by their siblings or by their partners or if they are under the influence of alcohol. Families, friends and teachers can all play a decisive role in protective factors. The results of the study highlight the need to better identify differences in risk factors between males and females in order to better plan targeted interventions.

In the second contribution from the Department for Anti-drug Policy of Italy, Elisabetta Simeoni and coll., raise attention to the serious and complex problems of the misuse and abuse of prescription drugs, which is becoming an alarming phenomenon in Europe. According to data presented, 2.8% of the US population older than 12 has used prescription drugs for non-medical purposes. Australia also faces an alarming raise, with at least 3% of the population having used prescription drugs for non-medical purposes. Data from the International Narcotics Control Board show that Canada has become the second biggest consumer of opioids per capita, with an increase in overdoses, between 1999 and 2004, of 416%. Authors analyse prescription drugs abuse by women of various age groups, also reporting on the modalities in which these substances are obtained without prescription. Specific recommendations are provided on how to prevent and treat this type of abuse and support women with treatment and avoid overdoses.

Joan Colom, from the Programme on Substance Abuse of the Public Health Agency of Catalonia and coll. propose a model for the early identification, prevention and management of intimate partner violence related to substance abuse. According to the authors, the integration of substance abuse professionals, intimate partner violence experts, with regular professional training, are essential for effective interventions. This approach facilitates synergy among all stakeholders in the health system, as well as promotes change in the working practices and the policy agenda.

Gender differences have been identified as heavy determinants in the onset of addictive behaviours. In Chapter III, Christine E. Grella, from the Integrated Substance Abuse Programme at UCLA, offers a very poignant essay on gender responsive treatment approaches for women with substance abuse disorders, highlighting the different pathways that bring men and women into treatment and the different outcomes. Professor Grella brings extensive literature in support of

²⁶The European School Survey Project on Alcohol and Other Drugs – ESPAD – www.espad.org

the conclusion that women treated in gender responsive programmes have better retention rates. Residential treatment facilities offering additional services, such as child care and social assistance, have better outcomes, with regard to treatment completion but also with regard to other important social and health factors, such as reduced or no substance use, HIV risk reduction, employment, and improved mental status. The essay also examines the urgent need to provide gender responsive treatment to women within the criminal justice system, who generally present a more severe clinical profile than men. It concludes by commenting on a number of evidence-based treatment strategies available to date.

The EMCDDA monitors and analyzes information on the drug situation in the EU Member States to provide good practices and support Member States to address drug use problems in the most effective and evidence based manner. The contribution by Marica Ferri and coll. presents an in-depth overview of treatment strategies provided in the EU, the evidence of their effectiveness and the analysis of treatment strategies for women who are pregnant and use substances and their newborns and children. It provides recommendations and guidelines, based on a EMCDDA official publication released in 2012²⁷.

From a national perspective, Paola Burroni and coll., from the Drug Addiction Department and University of Turin, Italy, present epidemiological data on one of the largest cohort of heroin users undergoing treatment between 1998 and 2001. Thanks to the extent of the cohort, gender differences at intake and at follow up could be investigated to understand treatment retention and its determinants among men and women.

Through the administration of a qualitative interview to a sample of individuals using both licit and illicit substances, but not seeking nor receiving treatment, Gail Gilchrist, Research Institut, Hospital del Mar, in Barcelona, and coll. offer a perspective on the factors representing barriers to treatment access, including the consideration of sex differences. Barriers reported by patients, both males and females, include a lack of motivation, perception of the quality of treatment as poor or ineffective, location of services, stigma, negative staff attitudes, poor health, and concerns about treatment access, related to appointments, referrals, waiting lists etc. The authors offer recommendations for improving access to treatment and for enhancing retention, especially through the offer of more flexible and non-stigmatising services. Although no substantial differences were reported between males and females in their perception of the obstacles to treatment, some issues were identified as typically relevant to females such as fear of losing child custody, violence and more severe and diffused history of violence and trauma. These issues need to be taken into consideration when planning gender responsive services.

Alcohol abuse should not be underestimated in women. Although the prevalence of use and abuse is significantly higher in males, women who abuse alcohol have a higher vulnerability to alcohol-related morbidity and mortality than men. Risk of breast cancer and hormone imbalances are also reported in the literature due to the effects of alcohol. The direct damaging effects of alcohol abuse on the foetus are well known and have been broadly studied. In this contribution Prof. Flavia Franconi, Department of Biomedical Sciences, University of Sassari, Italy, and coll.,

²⁷ Pregnancy childcare and the family EMCDDA, 2012.

highlight how gender differences influence treatment from a biological and a clinical point of view. Starting from the idea that males and females should be considered as two separate categories of subjects, the authors point out how women respond to medical treatments differently from men. However, as they are less studied than men from this perspective, they might receive less evidence-based treatment. The article underlines a very important point: “gender medicine” is still considered a developing discipline. Women in clinical studies are underrepresented and more efforts should be made to improve the knowledge of the pharmacokinetics of medical treatments on women who use alcohol and other drugs, especially during pregnancy. In this regard, the authors highlight the need for including a sex-gender perspective in all clinical and pre-clinical studies. This would ensure more reliable efficiency and safety profiles for each sex, increase access and compliance to therapies, and ensure the availability of tailored treatments.

“Guiding the Recovery of Women” (GROW) is a comprehensive training curriculum developed by a panel of experts set up by the Bureau of International Narcotics and Law Enforcement Affairs (INL) of the US State Department, to respond to the growing number of substance abusing women worldwide. Teddi Shihadeh presents the training programmes delivered in a number of countries, with a focus on the training activities carried out in Afghanistan, where INL opened the first and only women’s residential substance abuse treatment centre, providing treatment to an average of 200 women a year.

Prof. Richard Isralowitz and coll. at the Ben Gurion University, in Israel, considers the perspective of immigrants, their acculturation problems and relation to drug use, by describing the profiles of women who have migrated to Israel from Russia and Ukraine. Immigration of former Soviet Union nationals to Israel between 1989 and 1998 brought into Israel one million immigrants mostly from Russia and Ukraine. The authors report that Russian speaking immigrants make up for 13% of the population, but represent 25% of the illicit drug users in the country. With data on approximately one thousand former Soviet Union immigrants, Isralowitz and coll. present a very precise close up not only on women immigrants and their substance abuse profiles, but also their acculturation difficulties and their special needs in terms of treatment and recovery. The case study of Nika, a woman who came to Israel in her twenties, already using drugs, provides a very poignant example of the drug using career of immigrant women and their path towards recovery, which can present additional obstacles when followed in a foreign country. The Authors recommend the establishment of specific gender responsive services rather than services for immigrants only, which might hinder integration. It is of critical importance to consider cultural and ethnic diversities when addressing treatment of special populations, such as immigrant women.

Prof. Stephanie S. Convington, Center for Gender and Justice at the Institute for Relational Development in La Jolla, USA, opens Chapter IV with a thorough overview of the special characteristics of the female recovery process, through the lenses of the “Women’s Integrated Treatment” (WIT) model, based on three foundational theories: relational/cultural, addiction and trauma. The Author considers that no treatment can be effective for women who use drugs, if professionals do not acknowledge the realities of those women’s lives, which, in the case of drug users, are most of the times tainted with previous experiences of violence and abuse. The acknowledgement of the weight that trauma, deriving from violence and abuse, can

impact on women's lives is the starting point for any recovery process. Professor Covington describes this process as a downward spiral into addiction, around which women's lives rotate more and more tightly, while their substance of choice dominates every aspect of their lives. The recovery spiral is an upward one, where a woman's life still revolves around the drug, but in progressively expanded circles, away from addiction and into a fuller existence, where a new self can develop by joining healthy activities, relationships and transformed sexual and spiritual life. It is important that clinicians and all professionals involved in the recovery process become "trauma informed", i.e. understand trauma theory as a conceptual map to be followed in their clinical practice in order to provide trauma informed services, which are, in point of fact, concretely gender-responsive. In her long career with women's recovery, Prof. Covington has developed a number of gender-responsive, trauma-informed curricula to be used in treatment services for women and girls and in the criminal justice system. These curricula have been evaluated and tested in various research studies which showed an overall decrease in psychological distress, depression and trauma symptoms. Women in correctional facilities and women participating in drug court treatment programmes, showed higher percentages of treatment compliance, improvement of mental health symptoms and reduction of anger and hostility than women who did not undergo the Women Integrated Treatment (WIT) model. Overall, this model is based on the creation of a gender-responsive trauma-informed environment, where women can feel safe, express their anxiety and learn coping skills.

The importance of the links between violence and drug abuse in women is brought back in the next contribution by Lluïsa Garcia Esteve, Psychiatric and Psychology Service, Institute of Neuroscience in Barcelona, and coll., which describes the activities of the Programme for the Prevention and Treatment of the Psychic Effects in Sexually Assaulted Women (AGRESX-TEPT) established in 2006 at the Hospital Clinic of Barcelona. The Programme is based on a complete protocol, which includes emergency care at presentation and clinical and judicial follow up of the victims of sexual assault. At the emergency room, victims follow a circuit, which brings them into the care of a number of professionals (nurses, social workers, gynecologists, forensic doctors, psychiatrists, infectious diseases specialists) each performing his/her own part in the most efficient and coordinated ways, to avoid re-victimization. Women are accompanied throughout the circuit and they are offered the possibility to speak with a police officer to report the crime. When discharged, women are cared for in outpatient clinics and are provided with a guide for victims of sexual assault, prepared by the Hospital professionals. The authors point out how, in their experience, early intervention has been shown to reduce the possibility for chronicization of the psychological symptoms that the majority of women who are victims of sexual assault experience during the first weeks and that, if going untreated, can result in profound changes in personality, PTSD, depression and substance abuse. The Programme has also recently focused on victims of drug-facilitated sexual assault (DFSA), trying to establish a protocol for the emergency care and follow up of this type of victims, which account for as much as 20%-50% of the total number of victims, at any given period.

Two residential treatment approaches are presented from the US State of California, which were personally visited by the Editors of this volume. Speaking of "safe" recovery environments, the SHIELDS for Families' Exodus Programme, is

a unique model of family-based therapeutic community treatment located in South Central Los Angeles, which allows for the entire family to live in individual family apartments, in an 86-apartment compound offering treatment, follow-up and related social services. After completion treatment, families can remain in their apartment for a transitional time of up to one year, to develop their vocational and education skills, which will allow them to move ahead in their personal and family life. In addition to drug abuse treatment programmes, the SHIELDS for Families' Exodus Programme offers a wide array of services and support such as health education groups which include family planning, family focused groups, relapse prevention, lifetime aftercare services and child development services. At entrance, children are included in a programme to ensure a healthy emotional, physical and social development and readiness for school. Parenting classes are provided weekly. The Heros and Sheros programme, for youth and adolescents aged 5-18, provides after-school activities and full day care during summer breaks for children whose parents are involved in treatment. The programmes include self esteem groups, development of protective factors, improvement of family and peer-to-peer relationships, decision making and school performance.

Project Pride is a section of the East Bay Community Recovery Project (EBCRP) in Oakland (CA). Started in 1994, with funding from the Federal Government, it was designed as a pilot model for addressing alcohol and other drug use in pregnant and postpartum women. In 2009, program completion rates averaged between 60-75%. Criminal justice involvement was significantly reduced by 90%. Sixty-five percent of the women were employed or in-job training at the time of discharge and 75% were reunified with their children. A case study is presented to describe how the programme works and how interventions are structured. Also in this case, the approach is a gender responsive and trauma informed approach that allows for women to come to terms with their psychological distress and to find ways to cope with it, while developing life skills. This programme includes a very important component on the creation of a safe environment, where the recovery process can nurture itself. Empathic connection with professionals and other members of the group is also important in letting communication of vulnerabilities, anxiety and anger become instrumental in the motivation to change. Bringing children into the residential treatment programme and offering parenting skills learning techniques are also ways to empower women to regain their parental role while achieving a drug free life. One of the innovations of Project Pride is the "Celebrating Families programme", which directly involves family members in the women's recovery process, to promote healthy reunification and healing of past emotional conflicts. The re-building of family ties is also instrumental to assist the re-entrance into society after release from residential treatment.

The World Health Organization (WHO) states that health is "the dynamic state of complete physical, mental, spiritual, and social well-being and not merely the absence of disease or infirmity". Project DAWN has fully adopted this approach and strives to make health care policy and development more focused on females. In line with Commission resolution 55/5 it encourages member States to provide on wide range of measures that match the specific needs of women affected by drug abuse, including pregnant women and women who are parents or guardians with children. In this bigger picture, implementing this health care change is an important step towards reaching the goal of gender equality. This book hopes to bring us closer to that goal.

References

Amaro, H., Blake, S. M., Schwartz, P. M., Flinchbaugh, L. J., Developing theory-based substance abuse prevention programs for young adolescent girls, *Journal of Early Adolescence*, 2001, 21(3), 256-293

Back SE, Contini R, Brady KT, Substance Abuse in Women: Does Gender Matter?, *Psychiatric Times*. 2006, Vol. 24 No. 1

Brady K.T., Back S.E., Greenfield S.F. (eds.), Women and Addiction, A Comprehensive Handbook, The Guilford Press, 2009

Bradley, K.A.; Badrinath, S.; Bush, K.; et al., Medical risks for women who drink alcohol, *Journal of General Internal Medicine*, 1998, 13:627–639

Chokevivat V., A Study on the Four Dimensions of Health Researcher, *Journal of Health Systems Research*, July-September 2009 (Vol.3, No.3)

Covington. S., Creating gender-responsive programs: The next step for women's services, *Corrections Today*, February 2001, 63, 85-87

ECOSOC agreed conclusions 1997/2 of 18 July 1997, in Report of the ECOSOC for 1997E/1997/66, 1997 (Accessed in September 2013 at <http://www.un.org/documents/ecosoc/docs/1997/e1997-66.htm>)

ECOSOC, E/CN.7/2012/L.8/Rev.1, 2012 (Accessed in September 2013 at <http://daccess-dds-ny.un.org/doc/UNDOC/LTD/V12/517/52/PDF/V1251752.pdf?OpenElement>)

ECOSOC, E/2004/INF/2/Add.2, 2004 (Accessed in September 2013 at <http://www.un.org/womenwatch/daw/documents/ecosoc2004/eres2004-4Mainstreaming.pdf>)

EMCDDA, Pregnancy childcare and the family EMCDDA, 2012

ESPAD, The European School Survey Project on Alcohol and Other Drugs www.espad.org

Evans D.B., Hsu J.& Boerma T., Universal health coverage and universal access, *Bulletin of the WHO* 91:8, 2013

Fourth World Conference on Women, Platform for Action, Beijing, China - September 1995 Action for Equality, Development and Peace (Accessed in September 2013 at <http://www.un.org/womenwatch/daw/beijing/beijingdeclaration.html>)

Greenfield SF, Brooks AJ, Gordon SM, et al., Substance abuse treatment entry, retention, and outcome in women: a review of the literature, *Drug Alcohol Depend.* 2007; 86:1-21

Harvard Medical School, Addiction in Women, Newsletter, January 2010 (Accessed in September 2013 at http://www.health.harvard.edu/newsletters/Harvard_Mental_Health_Letter/2010/January/addiction-in-women)

Health Canada (2001). Best Practices: Treatment and Rehabilitation for Women With Substance Use Problems. Available from: http://www.hc-sc.gc.ca/hc-ps/pubs/adp-apd/bp_women-mp_femmes/index-eng.php

Jones N., Holmes R., Espey J. Gender and the MDGs: A gender lens is vital for pro-poor results Overseas Development Institute, London, 2008

NIDA, Principles of Drug Addiction Treatment: A Research-Based Guide, (Third Edition), 2012 (Accessed in September 2013 at <http://www.drugabuse.gov/publications/principles-drug-addiction-treatment>)

United Nations Development Programme, Human Development Report, 2013

United Nations Office of the Special Advisor on Gender Issues and Advancement of Women, Gender Mainstreaming: Strategy for Promoting Gender Equality, rev. August 2001

UNODC, TreatNet, Drug Dependence Treatment: Community Based Treatment Good Practice, 2008, (Accessed in September 2013 at: http://www.unodc.org/docs/treatment/CBTS_AB_24_01_09_accepted.pdf)

UNODC, Substance abuse treatment and care for women: Case studies and lessons learned, 2004, (Accessed in September 2013 at http://www.unodc.org/pdf/report_2004-08-30_1.pdf)

UNODC/WHO, Principles of Drug Dependence Treatment, 2008 (Accessed in September 2013 at <https://www.unodc.org/documents/drug-treatment/UNODC-WHO-Principles-of-Drug-Dependence-Treatment-March08.pdf>)

United Nations Office on Drugs and Crime (2012). World Drug Report: 2012. Vienna.

UN WOMEN, Gender Mainstreaming, 2013 (Accessed in September 2013 <http://www.unwomen.org/en/how-wework/un-system-coordination/gender-mainstreaming>)

U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration Office of Applied Studies, Results from the 2008 National Survey on Drug Use and Health: National Findings, 2008

World Bank, Gender Equality Data and Statistics, 2013 (Accessed in September 2013 at <http://datatopics.worldbank.org/gender/>)

World Economic Forum, Report on Gender Equity, 2013

WHO, Gender, Health and Tobacco, 2003 (accessed at http://www.who.int/gender/documents/Gender_Tobacco_2.pdf)

WHO, Women and health: today's evidence tomorrow's agenda, 2009 (Accessed in September 2013 at <http://www.who.int/gender/documents/en/>)

Chapter I

Gender equality and the advancement of women: key international instruments and documents focused on gender differences

Daniela Salvati (1), Kevin A. Sabet (2)

(1) Programme Officer, United Nations Interregional Crime and Justice Research Institute

(2) Director, Drug Policy Institute, Assistant Professor, Department of Psychiatry, Division of Addiction Medicine, University of Florida College of Medicine, (FL) USA

Gender equality has been at the forefront of the United Nations agenda since its establishment in 1945.

The United Nations commitment to the advancement of women began with the signing of the United Nations Charter in San Francisco in 1945. Its Preamble reaffirmed faith “in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small...”. One of the purposes of the United Nations set forth in Article 1 is “To achieve international co-operation [...] in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion.”¹

In 1946 the Economic and Social Council established its Commission on the Status of Women as the principal global policy-making body dedicated exclusively to gender equality and the advancement of women. The Commission on the Status of Women (CSW) first met at Lake Success, New York, in February 1947, soon after the founding of the United Nations. All 15 government representatives were women. From its inception, the Commission was supported by a unit of the United Nations that later became the Division for the Advancement of Women (DAW) in the UN Secretariat. The CSW forged a close relationship with non-governmental organizations, and in particular those in consultative status with the UN Economic and Social Council (ECOSOC) invited to participate as observers.

CSW is an intergovernmental deliberative body, the leader on issues related to gender equality and the empowerment of women at the global level, where Governments and civil society meet to take stock of progress and commit to further action. Each year, the Commission attracts very large national delegations, including dozens of Ministers, as well as around 2000 NGOs’ representatives coming from all regions of the world.

¹United Nations Charter, Retrieved from: <https://www.un.org/en/documents/charter/>

Women's rights have been highlighted in key instruments such as the Universal Declaration of Human Rights (1948)² and the 1976 International Covenants on Civil and Political Rights and Economic, Social, and Cultural Rights.

In addition to these broader documents, gender equality has been specifically addressed in a number of conventions, declarations and resolutions.

Convention on the Political Rights of Women

Opened for signature and ratification by General Assembly resolution 640 (VII), entered into force on 7 July 1954, the Convention on the Political Rights of Women focuses on equality for public service roles and voting. This includes allowing women to vote in all elections, be eligible for election to public office, and to hold public office and exercise all functions on equal terms with men. The Convention has 47 signatories and 122 parties³.

Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and the Optional Protocol

Often described as the international bill of rights for women, CEDAW was adopted by the UN General Assembly on 18 December 1979 and entered into force on 3 September 1981.

CEDAW was the culmination of over 30 years of work by the UN Commission on the Status of Women, and focuses primarily on equality and human rights concerns. The Convention covers civil rights issues, including re-stating the Convention on the Political Rights of Women and affirming rights to non-discrimination in education, employment, and economic and social activities. Reproductive rights are also addressed, including shared responsibility of child rearing by both the mother and father, as well as the right to reproductive choices. Lastly, the Convention seeks to recognize the influence of culture and tradition on restricting women's rights, such as customs, norms, and stereotypes that constrain women's freedoms. CEDAW has 99 signatories and 187 parties⁴.

Optional protocols are often added to human rights treaties to develop procedures regarding the treaty or to address an area related to the treaty. Optional protocols are treaties on their own and are open to signature, accession, or ratification to countries that are party to the original treaty⁵.

The optional protocol to CEDAW was adopted by the UN General Assembly without a vote on October 6, 1999 and entered into force on December 22, 2000. It contains a communications procedure, which gives women the right

² In contributing to the drafting of the Universal Declaration of Human Rights, the CSW successfully argued against references to "men" as a synonym for humanity, and succeeded in introducing new, more inclusive language.

³ Convention on the Political Rights of Women, Signed in New York 31 March 1953 (No. 2613). United Nations Treaty Series 193, p. 135.

⁴ Convention on the Elimination of All Forms of Discrimination Against Women, Signed in New York 18 December 1979 (No. 20378). United Nations Treaty Series 1249, p. 13.

⁵ United Nations Women Watch (2000). What is an Optional Protocol? Retrieved from: <http://www.un.org/womenwatch/daw/cedaw/protocol/whatis.htm>

to report CEDAW violations to the Committee, as well as an inquiry procedure, which allows the Committee to initiate inquiries into cases of violations against women's rights. The optional protocol has 80 signatories and 104 parties⁶.

Declaration on the Protection of Women and Children in Emergency and Armed Conflict

The UN General Assembly proclaimed the Declaration on the Protection of Women and Children in Emergency and Armed Conflict on 14 December 1974. The declaration prohibits and condemns attacks and bombings on civilian populations (particularly on women and children), chemical and biological warfare, and inhumane treatment of women and children. Women and children are to be spared from war, and shall not be deprived of food, shelter, and medical care⁷.

1985 - Third World Conference on Women in Nairobi⁸

The Nairobi Conference recognized that gender equality was not an isolated issue, but encompassed all areas of human activity.

Declaration on the Elimination of Violence Against Women

The UN General Assembly adopted the Declaration on the Elimination of Violence Against Women on December 20, 1993. The Declaration defines violence against women as physical, sexual, or psychological violence occurring against women or children in the family, general community, or by the state. It declares that women are entitled to life, equality, and security, equal protection under the law, safe working conditions, freedom from discrimination, and freedom from torture or other inhumane treatment. States are to condemn violence against women and should not condone any customs or traditions that go against this idea. Legislation is to be developed to punish and prevent acts of violence against women. The Declaration instructs all UN agencies to promote fair and equitable treatment of women⁹.

Beijing Declaration and Platform for Action

The Governments participating in the Fourth World Conference on Women in September 1995 adopted the Beijing Declaration and Platform for Action, a group of priority actions to ensure equality for women. The Declaration encompassed a number of goals, including 12 critical priority areas:

⁶ Optional Protocol to the Convention on the Elimination of All Forms of Discrimination Against Women, Signed in New York 6 October 1999 (No. 20378). United Nations Treaty Series 2131, p. 83.

⁷ United Nations General Assembly, Declaration on the Protection of Women and Children in Emergency and Armed Conflict, 14 December 1974, 3318 (XXIX). Retrieved from: <http://www2.ohchr.org/english/law/pdf/protectionwomen.pdf>

⁸ Report of The World Conference to Review and Appraise the Achievements of the United Nations Decade for Women: Equality, Development and Peace, Nairobi, 15-26 July 1985 United Nations New York, 1986. Retrieved from: <http://www.un.org/womenwatch/confer/nfls/Nairobi1985report.txt>

⁹ United Nations General Assembly, Declaration on the Elimination of Violence Against Women, 20 December 1993, A/RES/48/104. Retrieved from: <http://www.un.org/documents/ga/res/48/a48r104.htm>

1. Poverty Eradication: develop strategies that address the needs of women in poverty; ensure equal access to economic resources, savings, and credit institutions.
2. Education and Training: ensure equal access to education; eradicate illiteracy; improve access to vocational and continuing education; promote lifelong education; ensure that education and training programs are non-discriminatory and of equal quality to those available to men.
3. Health: increase access to affordable, quality healthcare; strengthen preventive programs; develop sexual and reproductive health education programs; prevent and eliminate violence against women; eliminate human and sexual trafficking.
4. Violence against Women: prevent and eliminate violence against women; eliminate human and sexual trafficking.
5. Armed Conflicts: increase the participation of women in conflict resolution; reduce military expenditures and control the availability of weapons; promote non-violent forms of conflict resolution and promote women's contributions to fostering peace; provide protection and assistance to refugee women.
6. Economic Rights: promote access to safe working conditions; eliminate segregation and employment discrimination.
7. Politics and Government: ensure equal access and full participation in government decision-making.
8. Institutional Mechanisms: create governmental bodies to help advance women; integrate gender perspective in legislation.
9. Human Rights: promote and protect the human rights of women; ensure equality and non-discrimination; achieve legal literacy.
10. Media: increase women's participation in media and communications; promote a balance and non-stereotypical portrayal of women in the media.
11. Environment: involve women in environmental decision-making; integrate gender concerns into programs for sustainable development.
12. Female Children: eliminate all forms of discrimination and violence against girls; eliminate child labor; strengthen the role of the family¹⁰.

Millennium Declaration, Millennium Development Goals and Post-2015 Development Agenda

In September 2000, building upon a decade of major United Nations conferences and summits, world leaders came together at the United Nations Headquarters in New York to adopt the United Nations Millennium Declaration, committing their nations to a new global partnership to reduce extreme poverty and setting out a series of time-bound targets - with a deadline of 2015 - that have become known as the Millennium Development Goals (MDGs):

1. Eradicate extreme poverty and hunger.
2. Achieve universal primary education.

¹⁰ United Nations, Beijing Declaration and Platform of Action, Adopted at the Fourth World Conference on Women, 27 October 1995. Retrieved from: <http://www.un.org/womenwatch/daw/beijing/platform/>.

3. Promote gender equality and empower women.
4. Reduce child mortality.
5. Improve maternal health.
6. Combat HIV/AIDS, malaria, and other diseases.
7. Ensure environmental sustainability.
8. Develop a global partnership for development^{11 12}.

As 2015 is approaching, a post-2015 task team has been established. Co-led by the UN Development Programme and UN Department of Economic and Social Affairs, the task team will evaluate the program's framework, identify successes and difficulties, review development trends, and prepare recommendations to formulate a development agenda after 2015¹³.

On 25 September 2013, the President of the UN General Assembly hosted a Special Event to follow up on efforts made towards achieving the Millennium Development Goals. At the Special Event towards achieving the MDGs, UN Secretary-General Ban Ki-moon presented to Member States his report entitled "A Life of Dignity for All"¹⁴. In the outcome document¹⁵, adopted by Member States, world leaders renewed their commitment to meet the MDG's targets and agreed to hold a high-level Summit in September 2015 to adopt a new set of Goals building on the achievements of the MDGs.

Women are an integral part to all of the MDGs; gender equality and empowerment are crucial to the framework in order to best maximize the potential of women in the home, workplace, and government, and to maintain sustainable growth and poverty reduction¹⁶.

As the leading organization with a global mandate to promote gender equality, women's rights and women's empowerment, UN Women¹⁷ called for a commitment to achieving gender equality, women's rights and women's empowerment in the Post-2015 development framework and Sustainable Development Goals (SDGs), as well as robust mainstreaming of gender considerations across all parts of the framework.

¹¹ United Nations General Assembly, United Nations Millennium Declaration, 18 September 2000, A/RES/55/2, Retrieved from: <http://www.un.org/millennium/declaration/ares552e.pdf>

¹² United Nations Development Programme (2012). Millennium Development Goals. Retrieved from: <http://www.undp.org/content/undp/en/home/mdgoverview/>

¹³ United Nations Economic and Social Council (2012). Millennium Goals and the Post-2015 Development Agenda. Retrieved from: <http://www.un.org/en/ecosoc/about/mdg.shtml>

¹⁴ UN Department of Public Information, Report of the UN Secretary-General: A Life of Dignity for All, New York, September 2013. Retrieved from: http://www.un.org/millenniumgoals/pdf/SG_Report_MDG_EN.pdf

¹⁵ United Nations General Assembly, Outcome document of the special event to follow up efforts made towards achieving the Millennium Development Goals, 1 October 2013, A/68/L.4. Retrieved from: http://www.un.org/en/ga/search/view_doc.asp?symbol=A/68/L.4

¹⁶ UNIFEM, Making Change Happen: Actions Necessary to Accelerate the Achievement of all Millennium Development Goals, New York 2010, UNIFEM/UN Women. Retrieved from: http://www.unifem.org/attachments/products/MDGsAndGenderEquality_1_MakingChangeHappen.pdf

¹⁷ The United Nations Entity for Gender Equality and the Empowerment of Women.

The United Nations Entity for Gender Equality and the Empowerment of Women (UN Women)

The UN Entity for Gender Equality and the Empowerment of Women, known as UN Women, was created through a unanimous vote at the UN General Assembly in 2010. UN Women merged four distinct offices that focused on gender equality and women's empowerment: the Division of the Advancement of Women, the Office of the Special Adviser on Gender Issues and the Advancement of Women, the International Research and Training Institute for the Advancement of Women and the UN Development Fund for Women¹⁸.

UN Women became operational on 1 January 2011 and works to eliminate discrimination against women and girls, empower women and achieve equality between women and men. Its main roles are to support inter-governmental bodies in the formulation of policies, global standards, and norms; to help Member States implement these standards with technical and financial support, if necessary, and to develop partnerships with civil society organizations; and to hold the UN system accountable for its own commitments on gender equality¹⁹. UN Women's top priority is for equal participation in politics and economic empowerment, while focusing on ending gender-based violence, including gender equality in government initiatives, and including women in peace and security measures²⁰.

During 2011, UN Women participated in 106 joint UN country programmes around the world, and signed 30 global partnership agreements with other UN agencies. UN Women, the Food and Agriculture Organization, the International Fund for Agricultural Development and the World Food Programme embarked on a joint initiative of economic empowerment for rural women and girls. 2012 saw the debut of the UN's System-Wide Action Plan on Gender Equality, spearheaded by UN Women²¹.

In 2012, with UN Women's assistance, women gained seats in seven national elections. Twenty-six countries reformed laws and policies increasing women's access to economic assets and social protection, while 30 improved services for survivors of gender-based violence. Fifteen nations incorporated gender equality priorities in national plans and budgets. These achievements come against a global backdrop of continued improvements, such as historic numbers of women in political leadership and a record 125 countries having adopted laws against domestic violence²².

In June 2013 UN Women, in order to address the structural causes of gender-based discrimination and to support true transformation in gender

¹⁸ United Nations General Assembly, Resolution Adopted by the General Assembly, 21 July 2010, A/RES/64/289, Retrieved from: <http://www.un.org/Docs/journal/asp/ws.asp?m=A/res/64/289>

¹⁹ UN Women. About UN Women. New York 2011. Retrieved from: <http://www.unwomen.org/about-us/about-un-women/>

²⁰ UN Women. Annual Report 2011-2012. New York 2012: UN Women.

²¹ UN Women, Annual Report 2011-2012, New York 2012. Retrieved from: <http://www.unwomen.org/~media/Headquarters/Attachments/Sections/Library/Publications/2012/UN-Women-AR-2012%20pdf.pdf>

²² UN Women, Annual Report 2012-2013, New York 2013. Retrieved from: <http://www.unwomen.org/~media/Headquarters/Attachments/Sections/Library/Publications/2013/6/UNwomen-AnnualReport2012-2013-en%20pdf.pdf>

relations, released the publication “A transformative stand-alone goal on achieving gender equality, women’s rights and women’s empowerment: imperatives and key components”. The document proposes an integrated approach that addresses three critical target areas of gender equality, women’s rights and women’s empowerment²³.

UN Women is also responsible for providing substantive support to the Commission on the Status of Women in all aspects of its work. One of the most decisive sessions of the CSW took place at the United Nations Headquarters in New York from 4 to 15 March 2013²⁴. The Commission’s priority theme for the session was “The elimination and prevention of all forms of violence against women and girls.” Governments reached a historic consensus on a blueprint of actions to be taken to end violence against women and girls. Actions range from strengthening legal and policy frameworks for prevention to improved responses and services for survivors. The final text adopted by Governments is forward-looking. The document strongly emphasizes that violence against women is a human rights violation and underlines that it is the duty of all States, regardless of their political, economic and cultural systems, to promote and protect all human rights, which are universal and indivisible.

Gender and Peacekeeping

Stressing the importance of women’s equal and full participation as active agents in the prevention and resolution of conflicts, peace-building and peacekeeping, the Security Council adopted unanimously the first Resolution on women, peace and security on 31 October 2000, the UNSCR 1325.

The UNSCR 1325²⁵ is a landmark international legal framework that addresses not only the inordinate impact of war on women, but also the pivotal role women should and do play in conflict management, conflict resolution and sustainable peace.

The Resolution also stressed the importance of gender perspective in post-conflict processes as well as women’s equal and full participation as active agents in peace and security with key provisions:

1. Increased participation and representation of women at all levels of decision-making
2. Attention to specific protection needs of women and girls in conflict.
3. Gender perspective in post-conflict processes.
4. Gender perspective in UN programming, reporting and in SC missions.
5. Gender perspective and training in UN peace support operations.

Other six supporting resolutions have been adopted by the Security Council

²³ UN Women, A transformative stand-alone goal on achieving gender equality, women’s rights and women’s empowerment: Imperatives and key components, New York 2013, Retrieved from: http://www.unwomen.org/~media/Headquarters/Attachments/Sections/Library/Publications/2013/10/UNWomen_post2015_positionpaper_English_final_web%20pdf.pdf

²⁴ Retrieved from: <http://www.unwomen.org/en/csw/previous-sessions/csw57-2013>

²⁵ United Nations Security Council, Resolution 1325 (2000), 31 October 2000, S/RES/1325 (2000). Retrieved from: http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1325%282000%29

ever since: 1820²⁶, 1888²⁷, 1889²⁸, 1960²⁹, 2016³⁰ and 2122³¹. The six resolutions focus on three key goals:

Strengthening women's participation in decision-making - Resolution 1325 (2000) calls for strengthening women's agency as peacemakers and peacebuilders, including their participation in conflict prevention and peace processes, early recovery, governance and in peace operations. Resolution 1889 (2009) complements 1325 by calling for the establishment of global indicators to measure progress on its implementation.

Resolution 2122 (2013) recognizes the need for consistent implementation of resolution 1325 (2000) on women, peace and security in its own work, and expressed its intention to focus more on women's leadership in conflict resolution and peacebuilding.

Ending sexual violence and impunity - Resolution 1820 (2008) calls for an end to widespread conflict-related sexual violence and for accountability in order to end impunity. Resolution 1888 (2009) focuses on strengthening leadership, expertise and other institutional capacities within the United Nations and in member states to help put an end to conflict-related sexual violence.

Resolution 2106 (2013) adds greater operational detail to previous resolutions on this topic, reiterates that all actors, including not only the Security Council and parties to armed conflict, but all Member States and United Nations entities, must do more to implement previous mandates and combat impunity for these crimes. UN Women is particularly encouraged that Resolution 2106 affirmed the centrality of gender equality and women's political, social, and economic empowerment.

Provide an accountability system - Resolution 1960 mandates the Secretary-General to list those parties credibly suspected of committing or being responsible for patterns of sexual violence in situations on the Council's agenda. Relevant sanctions committees will be briefed by the Special Representative of the Secretary-General on Sexual Violence in Conflict, and may take action against listed parties. SCR 1960 also calls for the establishment of monitoring, analysis, and reporting arrangements specific to conflict-related sexual violence.

²⁶ United Nations Security Council, Resolution 1820 (2008), 19 June 2008, S/RES/1820 (2008). Retrieved from: http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1820%282008%29

²⁷ United Nations Security Council, Resolution 1888 (2009), 30 September 2009, S/RES/1888 (2009). Retrieved from: <http://www.securitycouncilreport.org/atf/cf/%7B65BF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/WPS%20SRES%201888.pdf>

²⁸ United Nations Security Council, Resolution 1889 (2009), 5 October 2009, S/RES/1889 (2009). Retrieved from: <http://www.womenpeacesecurity.org/media/pdf-scr1889.pdf>

²⁹ United Nations Security Council, Resolution 1960 (2010), 16 December 2010, S/RES/1960 (2010), Retrieved from: http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1960%282010%29

³⁰ United Nations Security Council, Resolution 2016 (2013), 24 June 2013, S/RES/2106 (2013). Retrieved from: http://www.securitycouncilreport.org/atf/cf/%7B65BF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_res_2106.pdf

³¹ United Nations Security Council, Resolution 2122 (2013), 18 October 2013, S/RES/2122 (2013), Retrieved from: http://www.securitycouncilreport.org/atf/cf/%7B65BF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_res_2122.pdf

Convention on Preventing and Combating Violence against Women and Domestic Violence

The Council of Europe Committee of Ministers adopted on 7 April 2011 the Convention on Preventing and Combating Violence against Women and Domestic Violence (Istanbul Convention) which builds on the work carried out in various fora, including the afore mentioned United Nations milestones such as the Convention on the Elimination of All Forms of Discrimination against Women, complemented by General Recommendation 19 of the CEDAW Committee³², the Declaration on the Elimination of Violence against Women, and the Beijing Declaration and Platform for Action.

Opened for signature in May 2011, on the occasion of the 121st Session of the Committee of Ministers in Istanbul, the Convention is the first legally binding instrument in Europe to prevent and combat violence against women and domestic violence. In terms of scope, it is the most far-reaching international treaty to tackle this serious violation of human rights.

The Istanbul Convention will enter into force following its ratification by 10 countries (as of January 2014, 8 Member Countries of the Council of Europe have ratified the Convention and 24 have signed it). An independent group of experts (GREVIO) will monitor the implementation of the Convention.

The Convention is also the first international treaty to contain a definition of gender. Gender is defined in Article 3(c) as “the socially constructed roles, behaviours, activities and attributes that a given society considers appropriate for women and men”.

The Deputy Executive Director of UN Women Lakshmi Puri underlined how “The Istanbul Convention complements other standards, and it expands the international framework on gender equality and the empowerment of women” and how the Convention represents “a strong, legally-binding convention which sets out very clear directives and commitments for taking action on preventing, protecting, prosecuting and responding to violence against women and in particular domestic violence, which for so long was seen as a private issue, not to be tackled by the State”³³.

UN Women is working closely with the Council of Europe to disseminate the value of the Convention and to inspire accession, including by non-members of the Council of Europe.

³² CEDAW, General recommendations made by the Committee on the Elimination of Discrimination against Women. Retrieved from: <http://un.org/womenwatch/daw/cedaw/recommendations/recomm.htm>

³³ Statement by Ms. Lakshmi Puri Deputy Executive Director of UN Women at Regional Conference on the Istanbul Convention. 17 January 2013. Retrieved from: <http://www.unwomen.org/en/news/stories/2013/1/pushing-the-frontiers-on-the-elimination-of-violence-against-women-the-upcoming-commission-on-the-s/#sthash.9laCV6CJ.vpYSRDaX.dpuf>

The promise of gender mainstreaming

Niki Miller

Senior Program Associate, Advocates for Human Potential, Inc.,
with contributions from Kristen King, and Darby Penney

Introduction

The United Nations has made a fundamental commitment to gender equality in many areas of development work worldwide, conveying a consistent message that equality between men and women is essential to sustained social and economic progress. Since 1995, when the Fourth World Conference on Women took place in Beijing, the unique capacities of the United Nations have helped align women's empowerment with peacekeeping, policymaking, cross-national data collection and program planning through the strategic application of gender-mainstreaming.

Defined

The following definition was set forth in the Report on the Fourth World Conference: "Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality".

The Convention on the Elimination of All Forms of Discrimination against Women, adopted by the United Nations General Assembly in 1979, was the foundation for expanded dialogue regarding the human rights of women. It defines the right of women to be free from discrimination and includes gender-based violence as a form of discrimination. It sets the core principles to protect this right through an agenda for national action to end discrimination and ensure equal access to, and equal opportunities in, political and public life as well as education, health, and employment. It is one of the most widely ratified international treaties, and the only human rights treaty that affirms the reproductive rights of women (U.N. Population Fund, 2008). At the 1993 human rights conference in Vienna, the United Nations declared that women's rights were in fact Human Rights and called for an end to all forms of violence against women.

Purpose

Acknowledging women's rights as human rights, rather than secondary to them, paved the way for gendered analyses of women's experiences and needs in a variety of traditional and nontraditional domains and service systems (U.N. Department of Economic and Social Affairs, 2012). It has allowed for consideration of the specific consequences of economic, social, and justice policies for women and families.

Gender mainstreaming is a means for achieving equality between men and women, rather than an end in itself. It aims to create the infrastructure necessary to accommodate progress toward gender justice (True & Mintrom, 2001). It also ensures that development activities maximize opportunities to dissolve gender disparities, not deepen them, particularly in countries where women may already be subject to violence and oppression.

Gender mainstreaming acknowledges the historical and potential effects of globalization on women, children, and other groups without power. Yet, in addition to inducing rapid economic change, globalization can effect radical changes during periods of social, political, legal, or economic infrastructure development. It affirms that inherent in globalization's influence is its transformative potential and its promise.

Background

Gender mainstreaming originated in the 1970s as a feminist development practice, but was adopted through transnational feminist networks that applied the principle to complex inequalities. The consideration of gender became interwoven into diverse cultural beliefs, socio-political realities, poverty, violence, and wealth (Walby, 2005). In addition to ensuring economic development and human service interventions benefit women and men equally, gender mainstreaming has had broad implications across disciplines, from transforming public spaces and urban centers to promoting health equity in medical research and practice. In Vienna, Austria, it has been applied to the design of urban parks and in Finland to urban planning, achieving safer environments for women and children that incorporate better lighting, clearer lines of sight, and fewer isolated areas (Travers et al., 2008). In the Netherlands, gender mainstreaming is part of healthcare quality improvement and a multiyear initiative to transform physicians' training, (Verdonk, Benschop, De Haes and Lagro-Janssen, 2008). United Nations programmes to prevent the spread of HIV and programmes to increase health equity by the World Health Organization (2009) are now evaluated on gender-responsive outcome measures. This requires collection of gender-disaggregated baseline data, and gender-specific project monitoring metrics (U.N. Evaluation Group, 2011). Gendered analyses of government budgets allow women a voice in the allocation of public resources at the highest levels.

Each of these examples of gendered perspectives has brought new and original thinking to research, needs assessment, stakeholder and community involvement, and service delivery. Ideally, the results include increased participation of women at all levels - as researchers, planners, providers, and recipients of services - as well as empowerment, inclusion, and recognition of the value of women's contributions (Gülser Corat & Ruprecht, 2009).

Application

According to Walby (2005), the European Union has largely focused gender mainstreaming efforts in the areas of employment and economic development, where the application is somewhat more clearly defined than in mainstreaming gender in social programs and behavioral health. However, the strategy has also broadened the arenas in which gender equity is typically considered. For example, gender mainstreaming has transformative implications for public transit and is a consideration in transit planning in several nations.

In developed nations, gender mainstreaming has gained broader influence. According to pharmaceutical industry analyst Farah Ramadan, “This is changing in more advanced markets like the UK, the Nordics, and Canada, which have started to mainstream gender in their healthcare policy-making procedures, but it is often non-existent in developing or under-developed countries where the health gap hits most” (Ramadan, 2012). The diffusion of gender mainstreaming is uneven at this time. No nation has fully implemented it. One criticism of gender mainstreaming is that the mere adoption of rhetoric is not necessarily an indication of real change.

National policy is traditionally developed autonomously. The worldwide human rights movement and the movement to end violence against women are both supported by transnational feminist networks and other transnational entities, including the United Nations. The potential to influence policy through gender mainstreaming is greatest in transnational and global initiatives with conduits that promote international standards, such as the World Health Organization. These networks and organizations also may be relevant to mainstreaming gender into newly developed areas by influencing oversight mechanisms and credentialing bodies.

Gender mainstreaming and women’s drug and alcohol use

Specific application of gender mainstreaming to drug policy ensures that women and men benefit equally from drug demand-reduction activities, from prevention and recovery programming, and from alternative development in drug producing and trafficking regions (UN Office on Drugs and Crime, 2012) by systematically installing the necessary capacities in existing programs and mainstreaming planning for service expansion that is equally responsive to women and men. Methodologies for effecting increasingly gender-responsive programming involve specific steps:

- Include women in all aspects of planning and research.
- Collect baseline data on females.
- Conduct gendered analyses and needs assessments.
- Pilot new and modified programs and evaluate their impact.
- Perform in-depth analyses that review gender-specific elements (UN Office on Drugs and Crime, 2004).

Women’s gateways to substance use, their pathways to addiction, and their barriers to treatment are each distinct from men’s and are quite diverse in their own right. Sex-linked differences in physiological effects of substances apply

to all women and girls, universally. Gender differences are refracted through the lens of culture; they exist universally but are changeable and differ in their impact. Individuals also differ in their degree of acceptance of cultural beliefs about gender. (Levant, Richmond, Cook, House & Aupont, 2007). Dynamic factors include varying social norms regarding substance use, spiritual and religious traditions, availability of substances to women and girls, and the freedoms afforded to women in a given social context.

Expanding effective gender responsive services and approaches requires good information, dialogue and consensus, understanding of current and historical trends in women and girls' use of substances, and deliberate and focused efforts to include the voices of recovering women. Compiling knowledge across cultures about prevention for girls, effective treatment practices, and ongoing recovery for women is a laudable effort made possible by a growing international network. Locating ourselves in these unified efforts offers inclusive opportunities to inform the work that lies ahead.

What are the priorities for gender mainstreaming, regarding women, drugs, and alcohol, and should they differ in under-developed nations? Is an analysis of current gender responsive practices in developed nations a valuable undertaking that will yield best practice guidelines? Could they be diffused through transnational conduits? Perhaps there are model programs that could be implemented right away. Or is the prime opportunity influencing social, health and justice policy in developing nations? The intent of the text that follows is not to offer up answers, but rather to frame questions that will inspire all who devote themselves to improving the lives of at-risk and recovering women and girls, worldwide.

Standing on common ground

When I was first approached about contributing to an international volume on women and addiction, my initial joy was quickly supplanted by anxiety. What did I really know about the global status of prevention and treatment for women and girls? In the United States, advances in women's drug and alcohol treatment have been gratifying to see but arduous to sustain.

Progress with services for at-risk girls has been incremental at best. Like many champions of gender-responsive services, I have been knee-deep in domestic policy, trudging through years of targeted advocacy at the local, regional, and national level. Had I been too busy acting locally to think globally? Then, it occurred to me that my situation is probably not unique. Women in communities across the world have also been busy plowing through mountains of research, talking with hundreds of recovering women, sitting in on countless meetings, and presenting a never-ending stream of PowerPoint slides that could probably circle the globe.

The themes we explore from our discrete latitudes are the same: the centrality of trauma, stigma, criminalization, and increasing numbers of girls and women whose lives are lived at risk. The stigma and social isolation that recovering survivors, and those advocating for them, must overcome is well conveyed by feminist criminologist, Carol Smart, when she maintains that empathy for the victim

is mediated by judgments of her worthiness (1998). Experiences of violent and sexual victimization among women involved with drugs and alcohol transcend borders and cultures. Melissa Farley's landmark study compared trauma severity among women engaged in prostitution in South Africa, Turkey, Zambia, Thailand, and the United States (Farley, Baral, Kiremire & Sezgin, 1998). The proportion of these women who made use of substances as a matter of psychic and emotional survival was the same in Zambia (72% alcohol) as it was on the streets of Los Angeles (75% drugs).

How much have things really changed since our mothers' time? My mother quit smoking for each pregnancy, despite the cigarette advertisements of her day that warned, "You can't hide fat clumsy ankles... 'Reach for a Lucky instead.'" Although the image of a visibly pregnant woman still puffing away was not deemed nearly as abhorrent in the fifties as it is today, my mother was convinced that babies of women who smoked during pregnancy were scrawny and fussy. In 1956, a male doctor, concerned about her excessive weight gain, wrote a prescription for amphetamines that my mother was to take for the duration of her pregnancy. Several months passed before I reluctantly emerged, already drug-exposed and eager for more. Another obstetrician had advised my mother to drink beer when she nursed her first two children, so I didn't have long to wait. Whether or not any anomalies noted during my early years stemmed from in-utero amphetamine exposure never occurred to my mother or to her doctors.

What will we accomplish in our daughters' time? Some warn that as nations develop and adopt policies that increase women's equality, problems with substance use among women in these regions will also increase. If we collectively accept a Pandora's Box of new health risk behaviors as the price of social and economic progress for women, we may miss the transformational opportunities. Gender mainstreaming in developing nations affords us an opportunity to learn more about how cultural strengths act as protective factors for many girls, and may advance the study of gender-specific prevention worldwide. Truly gender-responsive prevention programming would mean girls in developing regions and in other parts of the world would not be at risk. They would be at promise.

I have high hopes for a global exchange because of Ester, an African psychologist who works with female inmates in Nairobi, Kenya. A friend who works with HIV-positive women brought her to me when I served as Administrator of Women Offenders for a Northeastern U.S. state. Ester was visiting to observe women's programmes. Our afternoon together was a gift of great magnitude to me. After we talked trauma, empowerment, and the universal demographic of disparity and profile of marginalization that the growing numbers of incarcerated women worldwide share, I had a surprise for Ester. She was delighted as she left my office with a volume of Lisa Najavits' "Seeking Safety" (2002), a treatment manual for substance abuse and post-traumatic stress disorder (PTSD), to bring back for the women in Nairobi. Two weeks later, I received an email from Ester telling me that the women loved the groups. If we, as women, take a stand for safety, it appears we are all standing on common ground.

Sex and gender: biological and sociological distinctions

Gender refers to a person's identity formation and presentation as male or female, the ways social institutions respond to a person based on perception of masculinity or femininity, and the amount of power a person has. Gender roles influence family and community life and may dictate socio-economic status, responses to authority, and socially acceptable standards of behavior, often without question, for men and women.

Tobias and Amanda are teenagers who both decide to drink alcohol at a party. Amanda passes out after five drinks. Tobias passes out after nine. Eventually, they both make it home with help from friends leaving the party. The next day at school, no one really mentions Tobias, but rumors fly about Amanda. Other students, male and female, whisper about Amanda's morals, her appearance, her wardrobe choices, her family, and her alcohol use with disdain. Nothing happened to Tobias while he was passed out. But gender happened to Amanda.

Biological differences dictate the amount of alcohol males and females can metabolize before they pass out and the amount that results in impairment and intoxication. Media messages, parental warnings, or religious beliefs cannot influence this outcome. But, a girl's vulnerability, the stigma, and the shame that go along with her use of substances are all based on her failure to meet gendered expectations that a girl will hold herself above the drunkenness around her. The pass extended to boys allowing them to experiment with substances, with a degree of impunity that girls do not enjoy, is based on their success in meeting gendered expectations that view drinking as a normative rite of passage for males.

Gender is usually based in biology, but it is shaped by social and cultural influences and individual experiences. Although gender and addiction may not be a main focus of epigenetics, research suggests that specific markers are likely to manifest as depression in women and alcoholism in men (Corryell, Winoker, Keller, Schefner & Endicott, 1992). The more intriguing research question of whether this is attributable to sex-linked (i.e., biological) differences or gendered (i.e., sociological) constructions of acceptability has not yet been answered. Data have also suggested addiction and even substance abuse may be more heritable for men than for women, although recent research confirms the strong influence of genetics is comparable for both. There is still some disagreement about whether the degree of heritability is greater and whether it differs depending on the substance (Nolen-Hoeksema, 2004). Some researchers have suggested that genetics exert more influence on women's initiation of use and on men's maintenance of use.

Gender-based social stigma seems to be universal to women's substance use across cultures (EMCDDA, 2009), influencing when and where women enter doorways to treatment. Research in the United States has shown that women, but not men, commonly report stigma as one of the top reasons they do not seek treatment for substance use disorders (CSAT, 2009). However, sex-linked physiological vulnerabilities can also make it difficult for women to initiate or maintain recovery.

Sex: *After her car accident, Sylvia took pain medication for a short time. She was surprised at how quickly she got used to having it. She even felt a little sick for the day she stopped using it, and thought about taking more just to feel better, even though her pain was gone*

Women's physiological responses to substances differ significantly from those of men. The window from experimentation to addiction is narrow; women can become physically dependent in a shorter period of time at lower levels of consumption and tend to experience more severe withdrawal (NIDA, 2005), therefore, early intervention is critical.

Drugs, including prescription drugs, alcohol, tobacco, and others, are not metabolized as efficiently in women as in men. They are broken down more slowly, stay in the female bloodstream longer, and tend to have a more potent effect on a woman's system. This is caused by a number of physiological factors ranging from stomach enzymes to body fat to water ratios. These differences are just beginning to be understood, and the magnitude of the medical implications is not fully known (APA, 1996; NIDA, 2005).

Women's brains are more vulnerable to the damage that alcohol and drugs cause in men, and may also sustain types of damage unique to females. For example, girls who binge drink at an early age may also experience hormonal changes that increase their lifelong vulnerability to estrogenic diseases such as breast cancer (CASA, 2003). This does not seem to be true for boys. Several studies have suggested that maternal substance use during pregnancy has greater effects on female babies, in utero, and their future development (NIDA, 2005).

Gender: *Sylvia described to her doctor how her body responded to the medication. He got out his prescription pad and wrote her another 30-day supply of the pills. Sylvia refused and asked if he forgot that she was recovering from substance abuse.*

Medical practice is not immune to the influence of gender stereotypes. Doctors often miss signs of addiction in females and fail to diagnose older women and younger girls with substance abuse. They are more likely to write a prescription for a female patient and more likely to prescribe sedatives and analgesics to female patients (CASA, 2003; WHO, 2004).

Women's behavioral health needs differ from men's in complex ways and have a dynamic relationship with their social status and safety. Women with alcohol and drug problems contend with high rates of victimization, childhood abuse (U.S. Dept. of Health and Human Services, 2010), histories of sexual abuse and domestic violence, and current danger from violent partners (CSAT, 2009; Downs & Miller, 2002). Many experience multiple intersecting forms of discrimination and racism, and live in dangerous conditions. They often have sustained great

personal losses. Addiction treatment that is “gender neutral” does not consider any of these issues and therefore is gender blind, as it is based on the needs of the dominant gender (Harris, 1998). In some cases this kind of treatment has been re-traumatizing for women or driven them away. The centrality of trauma in the lives of women who are addicted to substances makes them vulnerable to re-traumatization and relapse when they feel unsafe in a treatment setting (Harris, 1998; Women Co-occurring Disorders, 2003). Safety is fundamental for women to make progress in recovery (Herman, 1992).

Additionally, women tend to enter treatment at a much later stage of addiction compared to men. They tend to access services in mental health settings rather than substance treatment settings (CSAT, 2009), and stigma may compel them to hide their use. Competing demands, finances, and limited treatment options all contribute to delayed entry into treatment. They arrive with more serious health complications due to the accelerated rate of physiological damage they sustain from substance use.

Gender-based social determinates of health and disparities can adversely affect women’s overall medical care needs, as well as their recovery from addiction. For example, women are twice as likely as men to become infected with HIV during sexual intercourse, and are frequently infected as a result of sexual assault, with infection rates increasing rapidly around the globe – making AIDS the leading cause of death for women ages 15 to 49 worldwide. Yet, ideal therapeutic levels of medications prescribed to treat HIV/AIDS have not been determined for women; current dosages are based on amounts proven effective in men. Women with HIV/AIDS experience more severe adverse effects from combination therapies compared to men (NIDA, 2011). Because drugs stay in a woman’s system longer, it is possible that women may experience the therapeutic benefit of these medications at lower doses, but it is not possible to know this without gender-specific pharmaceutical research.

Historical context of gender and addiction

During the last several decades, the majority of the treatment population has been male. Although men’s rates of alcohol use have always exceeded women’s, the same cannot be said about drug use. Not so long ago, excessive alcohol consumption among women was an unacceptable breach of gendered expectations and a social taboo. Women’s drinking was synonymous with amorality, child neglect, and sexual concupiscence. Cheap gin was “epidemic” among impoverished women by 1750 in England, who were reviled and despised (Straussner & Brown, 2002). William White (1998) wrote about Benjamin Rush, father of American psychiatry, who attributed women’s drunkenness to self-medication of “breeding sickness” (menstruation).

The Victorian era brought increased disdain for women who drank. They could not expect to recover their standings as potential marriage partners or mothers. Beginning in the late 1800s, the recommended treatment for women alcoholics who did not respond to routine interventions was “de-sexualization” (removal of uterus and ovaries). In subsequent years this was watered down to mere “sterilization”

(Straussner & Brown, 2002). In his research interviews for his 1998 history of addiction recovery, in "Slaying the Dragon", William White spoke with many women committed to institutions for alcoholism, as recently as the 1950s, who were forced to consent to sterilization prior to discharge. Their medical records verified the procedures and contained their coerced signatures on consent forms.

At the turn of the 19th century, women's use of "medicines" was not only socially accepted, but in the United States, women were the largest consumers of opioid compounds (Keire, 1998). Historians place the proportion of female opium addicts at well over 50% and as high as 80% (White, 1998). Iatrogenic addiction among women was also rampant (Aldrich, 1994). In their 1972 publication on licit and illicit drugs, Brecher and the Editors of Consumer Reports attribute this to "the widespread medical custom of prescribing opiates for menstrual and menopausal discomfort" (p. 17). In 1880, with the introduction of the hypodermic needle, injectable morphine replaced laudanum. It was prescribed for a laundry list of female conditions (Aldrich, 1994).

The first opiate prohibition law in the western world was the Pharmacy Act of 1868, passed in London, banning laudanum unless prescribed by a physician. It was aimed at curtailing the common practice of infant doping to calm screaming babies (Berridge & Edwards, 1987). This suggests that small doses of laudanum might have been used to medicate the withdrawal symptoms of infants born to women physically dependent on opioids during pregnancy. The law went into effect after infant mortality studies in London were completed.

In Europe, another development around this time was Freud's pioneering use of talk therapy, specifically free association. It produced a uniform response among many women with psychosomatic complaints, illnesses with no apparent physiological cause, and a diagnosis of hysteria. The common complaint of childhood sexual abuse by Freud's female patients led him to theorize that it is a major cause of neurosis (Herman, 1982). Freud had no idea how far ahead of his time he had been before he abandoned this view in favor of his more well-known theoretical contentions, which reclassified women's narratives of childhood abuse as sexual fantasies (Webster, 1995). Today, research shows that a history of childhood sexual abuse is common among women with mental health problems (Clark, 2001; CSAT, 2009; WHO, 2004). Typically, survivors of abuse tend to have a number of somatic complaints and are at much higher risk for substance misuse and addiction (Felitti, 2002).

Despite widespread substance use among women, the first treatments evolved with little attention to their needs. Ethnographic studies of early addiction treatment show that women were heavily outnumbered by males, and incidents of sexual abuse by staff and other clients were reported (Inciardi, Lockwood & Pottieger, 1993). Early treatment programs for pregnant women were modeled after high-intensity men's programs, with crammed schedules six days of the week. This interfered with the natural bond women develop with their newborn during pregnancy and after delivery. Strengthening that bond creates a powerful motivation to recover and should be a central goal of addiction treatment for pregnant women (Pursley-Crotteau, 2001). The need to consider the specific situation of women in addiction treatment arose out of such conditions, and out of unsatisfactory outcomes in treatment access, retention, and completion (CSAT, 2009).

Iatrogenic addiction

Attributing “hysteria” to the female gender served to institutionalize women’s acceptable need for the occasional sedative in medical and psychiatric practice. According to the World Health Organization (2004), being female is predictive of being prescribed a psychotropic medication. Studies have shown that women in the United States are 30 times more likely to emerge from a doctor’s office with a prescription for a mood-altering drug than are men (CASA, 1998). Older women are the largest users of prescription drugs in the United States and in the European Union (UNODC, 2004).

Many physicians tend not to screen, educate, or caution adolescent girls with regard to alcohol and drug use (CASA, 2003); they may fail to detect signs of depression; and they typically rely on gender stereotypes when determining diagnoses (WHO, 2004). Doctors are also likely to prescribe highly addictive, short-acting benzodiazepines to women for long-term use for any number of complaints, including depression, while prescribing them to men as recommended (i.e., for short-term use to control acute anxiety; CASA, 1998; Curie, 2004; Mellinger, Balter & Uhlenhuth, 1984). Research shows that physicians often misdiagnosed women older than age 55 who displayed symptoms of alcoholism, determining instead that they were depressed and offering them anti-depressant medications (WHO, 2004). One promising strategy for the early identification of problem drinking among women is to provide screening and brief intervention in primary care settings for females across the life span. Including women in the development of effective training for medical professionals will be essential to the success of screening and brief intervention.

Evolution of treatment for women

Gender-specific and gender-responsive alcohol and drug policies, practices, and programs have been implemented in various communities and nations for several years. In British Columbia, single-gender treatment for women was underway as early as 1976 at the Aurora House, sustained throughout the 1980s, and with gender-specific aspects well defined by the 1990s (Women’s Addiction Foundation, n. d.). Elizabeth Ettore began researching women in alcohol treatment and pregnant women’s substance use in the United Kingdom in 1978 (FEAD, 2011). In the United States, a percentage of funding was earmarked for women’s treatment; multi-site pilot programs for pregnant and parenting women began in 1989 (CSAT, 2009). More than two decades ago, advocates first called upon European policy makers to focus on gender differences and women’s needs (EMCDDA, 2006). In 1987, Joy Barlow began to raise funds in Scotland for residential treatment where women could bring their children (FEAD, 2009). More recently, New Zealand and Australia have compiled qualitative research, using participatory methodologies to understand the trauma and addiction confluence among aboriginal women in prison (Kengi, 2000; Lawrie, 2003).

The process of becoming gender responsive has unfolded over time, often through predictable stages and periods of adjustment. Services evolved through the following major phases of development:

- Single-sex programs: removed from the predominance of males, women no longer are a small minority among a powerful majority. They interact with their peers as equals.
- Gender-specific programs: with the shift in power dynamics a new focus comes on how substance abuse affects women's relationships, child rearing, and valued family roles.
- Gender-responsive programs: services are transformed in response to women's experiences of addiction, trauma, and loss. Safety is primary in treatment and fundamental to recovery.

Theoretically, the first two are not considered gender-transformative. For practical purposes, all three have value and an important role in addressing health disparities that impact women and girls. Many women have experienced gender-specific treatment as profoundly transformative. In a very real sense, understanding the needs of women in addiction treatment began with single-sex groups, comprised only of female participants. Some of the advantages to single-sex programs include a greater sense of safety and increased engagement, participation, and retention. Ashley, Marsden & Brady (2003) reviewed 38 studies on women's treatment and found single-sex programming to be one of six characteristics that predict effectiveness. Research on gender and group norms has shown that men display a broader emotional range in mixed-gender groups, whereas women tend to hang back, limit their participation, and focus on the needs of others when males are present (Hodgins, el-Gruebaly & Addington, 1997). However, the absence of men does not make a program gender responsive. Not all single-sex treatment responds to the needs of women. Female boot camps and "shock incarceration" have been common in correctional treatment. Some women's therapeutic communities still encourage confrontation, which is contraindicated.

Nevertheless, the fundamental needs of women were easier to discern within the context of single-sex programs. The centrality of trauma, the value placed on relationships, accommodations for children, healthcare needs, and the importance of family were among them; peer recovery services, family skills programs, and trauma-specific treatments were targeted services that came out of this increased awareness of women's needs. Gender-specific enhancements in group work raised issues central to women. Gender-specific interventions may be situated in both single-sex and mixed-gender programs. For example, parenting programs and accommodations for children and child care during groups were specific enhancements for women. Policies and protocols to ensure safety planning and collaboration with domestic violence services are also gender-specific enhancements that have benefited women and girls.

Truly gender-responsive programs are transformative and person-centered. Gender responsive implies that women in the community work with treatment providers to bring their lived recovery experience to planning and evaluation in a dynamic process that improves treatment satisfaction and encourages participation, and shared decision making. Gender-responsive programs collect, disaggregate, and analyze evaluation data and client satisfaction measures; stay current with the latest research and practice guidelines; and structure the

meaningful participation of recovering women in program planning and delivery, policy reform and evaluation. Participation is empowering and culturally respectful, and recognizes and reinforces women's strengths (WHO, 2004).

An example of this dynamic process occurred in a program that piloted enhancements such as child care and transportation for pregnant women in treatment. Surprisingly, childcare was the least used despite the fact that it was a service included in the needs assessment. Women did not feel comfortable with providers right away and were reluctant to entrust their children to them. Many women feared their parenting would be under scrutiny and that Social Services could become involved. Others were survivors of childhood sexual abuse and avoided leaving their children with strangers (Comfort, Loverro & Kaltenbach, 2000). Once the women trusted the staff enough to talk with them about their fears, things fell into place.

The challenge of gender-responsive programming is to ensure the presence of this type of exchange between the women who use the services and the women delivering them. Informal opportunities and formalized program elements that invite women to have the highest degree of agency possible with regard to their own treatment and recovery are the hallmark of trauma-informed care, responsive to both gender and culture. This empowerment approach assumes that the best source of knowledge about what a woman needs in order to feel safe in treatment and what she will need to feel safe when she leaves treatment is the woman herself.

Addiction, treatment and pregnancy

Use of drugs, alcohol and tobacco by women during pregnancy is arguably one of the most stigmatized health risk behaviors professionals encounter. Prevention, education and intervention can reduce both the number of women using substances during pregnancy and also the frequency and intensity of substance use (i.e., harm reduction). However, policies that support intervention rather than discourage it are required to achieve positive results. Interventions with substance-using parents and pregnant women have been very effective, particularly in the European Union, where several member states link families to supportive services that remain available until the child begins school (EMCDDA, 2006).

Punitive responses to substance use during pregnancy have ranged from termination of parental rights to arrest and incarceration. Several U.S. states consider evidence of drug use during pregnancy as presumptive neglect, grounds for removing a child from the home and action from child welfare. No member countries of the European Union consider substance use during pregnancy presumptive neglect, but it is reportable. Norway and several U.S. states include pregnant women in laws that allow for civil commitment of individuals on the basis of substance use (CSAT, 2009; EMCDDA, 2006). There is no evidence that punitive policies deter women from using drugs and alcohol during pregnancy, but evidence suggests that they do deter women from seeking treatment and from receiving prenatal care, because physicians must follow guidelines for drug testing and reporting (Gareau, 2011; Paltrow & Flavin, 2013).

The most important opportunity for intervention with women is pregnancy. If policies that deter women from seeking medical care and help for substance

abuse proliferate, it may not be possible to significantly reduce drug use during pregnancy. A woman who is jailed or imprisoned during her pregnancy is likely to not receive the same quality of prenatal care that she would receive in the community (Lewin, 1997). She will have little or no support, may be shackled during labor, and could be separated from her infant within an hour of delivery. It is simple to understand why this is such a deterrent to seeking treatment and receiving prenatal care.

The earliest treatment programmes for pregnant women focused on opioid addiction; however, the advent of crack use among women and public perception of the “crack baby” prompted a flurry of funding for addiction research and model programmes for pregnant women. In 1994, the National Institutes of Health released guidelines on the inclusion of women and minorities in research, and empirical studies on women’s treatment increased (CSAT, 2009).

Unfortunately, crack cocaine was also a catalyst for punitive public policy based on visceral responses rather than accurate information (Ashley, Marsden & Brady, 2003). Even the objectivity of the scientific research community was affected. As sensational stories funneled through mainstream media sources, The Lancet released an article that showed a bias in acceptance of research studies for publication, with more elegant research studies that suggested less virulent and permanent effects rejected in favor of studies that attributed a number of negative birth outcomes and developmental issues to crack use, without controlling for poverty, poly-substance use (including cigarettes and alcohol), prenatal battering, and quality of prenatal care (Koren, Graham, Shear & Einarson, 1989).

Pregnancy and substance use is an emotionally charged issue for everyone concerned, including treatment professionals and policy makers. However, when policies are based on emotional responses rather than the best information available, everyone loses, including infants (Paltrow & Flavin, 2013). For example, in 1997, as a result of a judicial ruling (not legislation), South Carolina became the only state to authorize the prosecution of pregnant women who use drugs for child abuse (Lewin, 1997). Studies of women’s treatment admissions before and after the court ruling found a change in patterns of women’s treatment admissions, with more women avoiding substance abuse treatment (Gareau, 2011).

Mind the gaps

Gender mainstreaming may help improve access to recovery, clinical practice, community support and health equity. There will always be a need for specialty programmes that offer housing safety and comprehensive wrap around services for pregnant and parenting women. However, it is neither economically sustainable nor clinically indicated to provide treatment for all women with drug and alcohol problems in such a modality. It is also critical to apply gender mainstreaming to early detection and intervention with girls, who are more vulnerable to the effects of substances and develop addiction and health impairment at an accelerated pace (NIDA, 2005).

The gender gap

The difference in the numbers of women and men who drink or use other drugs is known as the gender gap. It is one gender gap we do not want to close. It is also the gap our daughters are busy closing. International studies show that the gender gap is narrowing for alcohol, with women and girls drinking nearly as much as their male counterparts in several countries (Poole & Dell, 2005), including Canada, Australia, Spain, and the United States (EMCDDA, 2005; EMCDDA, 2012a; NIDA, 2010). This is a dramatic departure from historical trends. For example, 1975 rates from a large U.S. population-based national survey of students, Monitoring the Future, showed boys' binge drinking rates at 23 percentage points higher than those of girls (NIDA, 2013). Less than 40 years later, current youth surveys have reported rates of binge drinking among girls ages 10-13 that exceed boys' (Centers for Disease Control, 2008). A 2011 report on girls in the UK showed that at age 15 their binge drinking rate (50%) exceeded the rate of boys and was among the highest reported (European School Survey, 2011). In February 2013, an Australian study by the Institute of Health and Welfare showed that girls' rates of binge drinking were exceeding boys'.

The gender gap differs by substance, with women's illicit use of tranquilizers, sedatives, and certain other psychotherapeutics typically surpassing or equaling men's rates of use. However, in several countries there is now little or no difference between women's and men's use of a number of other substances, with women trending higher in use of methamphetamine and other stimulants and of non-heroin opioids. The gender gap for drugs also differs by age group (EMCDDA, 2005; OAS, 2011; SAMHSA, 2012).

Dr. Nora Volkow, Director of the National Institutes on Drug Abuse, calls the use trends among girls "quite worrisome," because between 12 and 17 years of age, girls have significantly high errates of abuse for all psychotherapeutics, including opioids. Stimulant abuse is 60% to 70% higher among girls; they have higher rates of ecstasy and inhalant use (NIDA, 2010). This suggests a failure of prevention efforts to reach girls and to reduce their rates of substance use.

Yet, data are commonly and inaccurately generalized to female youth. The press release headline for the results of a recent survey boasts "Adolescent Smoking and Drinking at Historic Lows" (NIDA, 2013). A gendered analysis of these same data could produce a different, but still accurate, headline: "Girls at Historically High Risk." There is no disagreement that the gender gap is narrowing, but there is a surprising dearth of information and conversation on how dramatic and significant the increases are. Sounding an alarm is the first step in containment. The second step is comprehensive gendered analyses of available data to identify trends over time. The third is ensuring that alcohol and drug prevention and intervention services respond to girls' unique risk and protective factors (CASA, 2003).

The treatment gap

The difference between the proportion of individuals accessing treatment and the proportion needing it is known as the treatment gap. Contrary to old thinking, women are at least as likely to benefit from treatment as men are, but

men are more likely to enter treatment (Najavits, 2006). In Europe, the rates of substance use among women are definitely higher than their rates of treatment utilization, but an exact figure is not available. In the United States, the treatment gap for women has hovered between 80% and 90% (CSAT, 2011; CASA, 2007).

The data tell us that many women entering addiction treatment in the United States are in immediate danger from violent partners (47%) and may need legal representation and victim's advocacy services (Downs & Miller, 2002); may have depression, anxiety, and complex PTSD; and may benefit from mental health services (Zweben, 1996). They are typically difficult to retain in treatment if their children are not with them, and they benefit when services are extended to their children (CSAT, 2009).

When providers do not have the capacity to deliver or facilitate essential services such as trauma recovery support, mental health treatment, pregnancy and parenting supports, and safety from domestic violence, it can discourage women from seeking treatment (Women, Co-occurring Disorder and Violence, 2003). Initiating treatment requires trust, sacrifices, and significant risks for women. It is difficult for women to trust a system of care that asks them to choose between mental health services or addiction treatment. It does not feel like empathy when a single mother is told she can enter treatment but cannot bring her children (Clark, 2001). A domestic violence survivor does not feel safe unless agency protocols and staff have measures in place to protect her (Straussner & Brown, 2002).

A gender-responsive recovery continuum involves creating a forum for community support, collaboration, and a cross-agency response to a population served by public health, prevention, behavioral health, children's services, and primary care (CSAT, 2009). Gender mainstreaming affords an opportunity to create collaborative linkages between multiple services and increase coordinated care for families in recovery before, during, and after treatment (EMCDDA, 2006). This integrated approach connects treatment, prevention, and maternal and child health. Efforts to counter stigma and misinformation and to change public perceptions are important. Women heal, recover, and live in the context of their communities and families, not in treatment centers, institutions, or hospitals. Partnerships of grassroots advocates, service providers, policy makers and women in recovery, dedicated to improving the lives of at-risk and recovering women, girls, and families can keep the issue at the forefront through collaboration and visibility.

When women experience relapse, it is often the result of situational stressors and competing demands; men tend to experience relapse when they are doing well and become overconfident (CSAT, 2009). Parenting stress definitely creates relapse conditions for women in early recovery. For a variety of reasons, women in recovery may be under pressure to reunify with their children as quickly as possible or face loss of custody, leading to the phenomenon of "shock motherhood." Women re-entering from correctional facilities or long term treatment programs are presented with children on the doorstep, often within hours of release, but given little parenting support. Mothering can be challenging under any circumstances, but as Nancy D. Campbell points out, "there are few mothers who encounter as little support as those who depend on drugs to navigate their everyday (and every night) lives" (Hurst, 2013).

Community prevention coalitions are particularly non-stigmatizing ways to deliver family and parenting skills groups and other recovery-oriented, gender-responsive supports (UNODC, 2010). Providing skills and supports for recovering women, mothers, and at-risk families are pre-emptive strikes against addiction in the next generation (Kumpfer, 1998). Best practices recommend working with women on what they see as their most immediate needs to build a therapeutic alliance and provider credibility (Zweben, 1996).

The intervention gap

The intervention gap for women results in late entry into treatment, with more serious health conditions, complex psycho-social consequences, and the need for the most expensive levels of care. One of the authors of "Gendering Addiction: The Politics of Drug Treatment in a Neurochemical World" (Campbell & Ettorre, 2011) commented in a recent interview: "I don't think that more treatment is going to lessen these disadvantages - we can't treat our way out of the problem. Better treatment would be great, but it won't lessen the gap. We have to think about why so many women are in pain in the first place, and do what we can to reduce pain and hardship" (Hurst, para. 11, 2013).

Clearly, the points of early intervention for men are not casting a net that includes women who are appropriate for selected or indicated prevention or low-threshold intervention and treatment services. Gender mainstreaming applied to the complete continuum of care, from prevention through long-term recovery support, has the potential to drastically reduce the fiscal and human costs associated with advanced stage addiction in women.

Examples of open-access, low-threshold services for women are highlighted in the United Nations Office of Drugs and Crime publication "Substance Abuse Treatment and Care for Women: Case Studies and Lessons Learned" (2004). Included are snapshots of peer support programs from Senegal, street outreach in Slovakia, drop-in centers in the Islamic Republic of Iran, and other community-based programs aimed at engaging women at earlier junctures. Switzerland has just introduced a realignment of its prevention priorities based on a public health model (Swiss Federal Office of Public Health, 2010), with the substances that do the most harm (regardless of whether they are legal or not), at the top of list. In Canada, a program called "Motherisk" maintains helplines and a database of information about medications and substances and their impact on pregnancy and breastfeeding. Women can call anonymously and get information on any substance from one of the leading centers for maternal and child health, including "legal" medications, which can also have effects on fetal and early childhood development even when prescribed by a physician and taken as directed (Thompson, Levitt & Stanwood, 2009). In Germany, the substance abuse agenda for women includes early intervention and prevention (ECMDDA, 2012b).

Research shows women are more likely than men to seek help in general and to seek health care specifically, but are less likely to enter alcohol and drug treatment (Najavits, 2002). Studies also find that the probability of using any abusable prescription drug is 48% greater for women than for men (Simoni-

Wastila, 2000). Because women are likely to seek help in mental health settings (CSAT, 2009; Price & Simmel, 2002), it is crucial that use of medications with a high potential for addiction be managed properly and carefully by health care providers, or the result, especially for older women, can be a compounding of their alcoholism with a prescription drug addiction (CASA, 1998).

Analysis of treatment admission data from the United States and the European Union consistently show that the smallest differences in use patterns and in treatment admissions between males and females occur during adolescence and young adulthood (SAMHSA, 2012; EMCDDA, 2012a). It may be that it is easier for women to engage in treatment before having child-rearing responsibilities and facing the risk of losing child custody. If this is true, then applying a gendered perspective to policies, early intervention strategies, and increasing treatment capacity for girls and young women may be necessary.

Leadership and advocacy

There are chasms in the knowledge base about girls' and women's use patterns. Women of childbearing age have often received contradictory public health information, and research findings from studies on males have been inappropriately applied to females. Knowledge gaps and inaccuracies contribute to ineffective prevention programs, stigma, punitive policies, and disparities in access to effective treatment. Advocating for gender-responsive women's services requires informing the public with the facts about the importance of prevention, the effectiveness of treatment, and the role community plays in supporting prevention and recovery.

Women have a tendency to assume responsibility for the family's health and can act as the fulcrum that leverages family members into recovery, breaking intergenerational patterns (Kumpfer, 2008). Strategic action and leadership development can increase the participation of women with lived recovery experience. Creating opportunities for them to speak publicly or anonymously and participate in research, needs assessment, outreach, and peer support services can be empowering for women who choose to take part (Miller, 2011). Gathering good qualitative data and relying on participatory research methodologies that empower communities to determine measures of effectiveness are some of the strategies that work well in developing regions (EMCDDA, 2000). A qualitative research publication that unifies the voices of recovering women from several countries provided the following quote (EMCDDA, 2009): "Gender-responsive policies and programming for women do not fall from the sky. They are anchored in 'Nothing about us without us' principles with systematic inclusion of women drug users in the design, planning, implementing, monitoring and evaluation of policies, strategies and programmes" (Hankins in EMCDDA, 2009).

Trauma, gender and justice

Trauma can be devastatingly interpersonal for women and children. Sexual or violent victimization in childhood, intimate partner violence, and sexual assault are types of traumatic events common among girls and women. They are often perpetrated by a loved one the victim has trusted and must depend on. The sense of deep betrayal that accompanies these violations is also traumatic (Downs & Miller, 2002), and likely to contribute to serious mental health problems, drug and alcohol addiction, fear and distrust of intimate relationships, and drastic alterations in beliefs about the world (Najavits, 2002). The combination of trauma and addiction can also increase the likelihood of criminal justice involvement; but when it intersects with ethnicity, arrest is even more likely (Komarovskaya, 2009). This is blatantly demonstrated in the U.S. prison system where African Americans are six times more likely to be incarcerated than whites (NAACP, 2013).

Women from cultural groups that have historically been subject to disenfranchisement, racism, discrimination, enslavement, social exclusion, and genocide are impacted by intergenerational cultural trauma (Eyerman, 2001). They often carry this trauma for their families, their tribe, or their children in addition to their own personal experiences of trauma. Responses to trauma are “pathologized” by professional behavioral health providers or criminalized among communities when there is violence. Substances may serve to keep trauma responses under control, to help the survivor feel powerful, or to not feel at all. Criminal justice policies regarding drug use have hit these women hard, and increases in women’s imprisonment, worldwide, has resulted in a human rights crisis in some regions.

Addictions, PTSD and co-occurring disorders

For many women, past trauma emerges or re-emerges when they attempt to stop using substances. This triggering effect can be more intense in a correctional environment (Miller & Najavits, 2012). Traditional substance abuse treatment and detoxification programs that are not designed to address the co-occurrence of trauma often are limited in their ability to engage and retain women or to result in lasting treatment gains (Messina, Grella, Cartier & Torres, 2010). To ensure that women detoxifying from substances receive appropriate services when entering correctional facilities, trauma-informed correctional approaches and intake staff competencies that include basic stabilizing skills are necessary (Clements-Nolde, Wolden & Bargmann-Losche, 2009). Intake and accurate classification of women offenders should be couched in the awareness that many women have immediate and overwhelming emotional responses rooted in past trauma shortly after they cease to use drugs or alcohol (Farley et al., 2004). In a correctional environment, women offenders with histories of addiction will benefit from immediate skill building aimed at giving them more authority over their responses. Gender-responsive addiction treatment and trauma-informed programming can help incarcerated women who have experienced trauma to make progress in all aspects of rehabilitation (Najavits, 2006).

Indigenous women in custody

In Australia, Aboriginal women are 31% of the prison population and 2% of the general population (Australian Bureau, 2012). The situation of indigenous women in Australia, unfortunately, is not unique. Maori women in New Zealand make up between 51% and 60% of the prison population, although they are less than 10% of the total population (NZDOC, 2012). In Canada, indigenous women are 32% of the prison population although only 4% of the country's population is indigenous (Wesley, 2012).

The Speak Out Speak Strong study and report (Lawrie, 2003) was commissioned by the Aboriginal Justice Advisory Council to look at the needs and experiences of Aboriginal women imprisoned in New South Wales, Australia. The qualitative study methodology consisted of a survey crafted by members of the Aboriginal Justice Advisory Council working with researchers. Aboriginal research assistants administered the survey to 50 incarcerated women and followed up with narrative interviews of a segment of the sample. The methodology was as respectful and as inclusive as possible of the research participants and of the Aboriginal leadership, given the constraints of a correctional setting. One remarkable finding was that 70% of Aboriginal women in custody reported being sexually assaulted as children, and 98% of those women reporting sexual abuse were addicted to drugs. Although high rates of sexual abuse are common among groups of incarcerated women (Blackburn, Mullings & Marquart, 2008; Gilfus, 2002), the clear and direct pathway for almost all of the women, from sexual abuse, to drug use, to prison, was remarkable. This may be the result of the intersection of sexual abuse and cultural trauma, defined as “a dramatic loss of identity and meaning, a tear in the social fabric, affecting a group of people that has achieved some degree of cohesion” (Eyerman, 2001).

Given the vulnerability of indigenous women and girls in many areas of the world, and the rates of drug addiction and incarceration among the groups mentioned, investigating the role of trauma interventions and early protective therapeutic prevention programming for indigenous girls would be worthwhile (Battle et al., 2002).

Sometimes justice is as necessary for healing as is counseling. Justice requires that gender mainstreaming includes efforts to ensure that all human service systems become trauma informed. When economic and health disparities result in vulnerability to addiction, and to violent and sexual victimization, justice has to be part of the answer. But can justice be found in a prison? A gender responsive program in a minimum security prison in Hawaii (U.S.A.), that houses disproportionate numbers of women of Native Hawaiian descent, raises the possibility that it can (see box).

Creating a place of healing and forgiveness: The Trauma Informed Care Initiative of the Women's Community Correctional Center of Hawaii³⁴

Recognizing that most inmates are trauma survivors and many common prison routines can re-traumatize women, the Women's Community Correctional Center of Hawaii, under the leadership of Warden Mark Kawika Patterson, works to create "a place of healing and forgiveness" through its Trauma-Informed Care Initiative (TICI). TICI emphasizes educating staff, inmates, community partners, and the public about the value of trauma-informed environments and practices in healing.

Warden Patterson was inspired by the Hawaiian concept of the pu`uhonua, a place of refuge, asylum, peace, and safety

Under the ancient system of laws known as kapu, in which law-breaking was punishable by death, someone who broke a law and was able to reach a pu`uhonua would receive sanctuary. There, a priest performed a ritual that absolved the person of blame, which allowed the law-breaker to return to their village and resume their life. The spirit of pu`uhonua - the opportunity to heal and live a forgiven life - informs the vision that is changing the environment for both incarcerated women and staff at WCCC.

The impact of historical trauma is of particular concern for the 40% of WCCC inmates of Native Hawaiian descent, who are disproportionately represented among the prison population (Native Hawaiians make up only 10% of the state's general population). For Native Hawaiians, the trauma of the cultural disruptions that resulted from the U.S. overthrow of the Hawaiian monarchy in 1893 is still evident. Native Hawaiian culture was traditionally matriarchal, so women may feel the loss of traditional roles especially keenly. This can make them vulnerable to trauma responses such as elevated suicide rates, substance abuse, mental health problems, coping mechanisms that appear self-sabotaging, unresolved grief, and physical ailments.

When Warden Patterson and his team recognized that the vast majority of women at WCCC were survivors of trauma, they understood that many of the crimes that led to incarceration, particularly drug offenses, were rooted in women's responses to traumatic experiences. They realized, too, that the prison environment and many of the routine practices in the correctional system had the potential to re-traumatize women. In response, Warden Patterson and his colleagues created the TICI as a unique collaboration among the facility administration, staff and inmates; community-based non-profit organizations and foundations; state and federal government agencies; educators and researchers, and volunteers from churches, civic organizations and the broader community.

³⁴ Adapted with permission from a 2013 brief titled *Creating a Place of Healing and Forgiveness: The Trauma-Informed Care Initiative of the Women's Community Correctional Center of Hawaii*. This technical assistance document was developed by the National Association of State Mental Health Program Directors (NASMHPD) and Advocates for Human Potential, Inc. (AHP), under contract number HHSS2832007000201 for the Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (HHS), and was written by Darby Penney, MLS. Its content is solely the responsibility of the author and does not necessarily represent the position of NASMHPD, AHP, or SAMHSA.

*Women are offered a choice of effective treatments and supports that specifically target trauma-related difficulties. Other elements of the program include: **Maintaining the Bonds Between Mothers and Children** - activities designed to maintain a bond with children and to promote safe and nurturing environments.*

***Enhancing the Physical Environment** - women inmates participate in creating gardens and comfortable places onsite, including comfort/sensory rooms.*

***Community Outreach/Community Volunteers** - women inmates go into the community to discuss impact of trauma or read from their creative writing.*

Identity, gender and transformation

Gender is both central to identity and inseparable from the culture that constructs it and the social context that defines its parameters. Rigid gender role assignments are the reality in some parts of the world, where consequences of gender nonconformity are still overt and intense; they exist with varying degrees of subtlety in most cultures. However, today in many places, post-modern gender flexibility has prompted the reconceptualization of gender as a continuum instead of fixed categories. The concept acknowledges that men or women may have behaviors and characteristics that fall anywhere on the gender continuum. It also accommodates the biological variants of sex (Meyer-Bahlburg, 2009), all degrees of gender transition, and indigenous cultural traditions that embrace diverse gender expressions and identities (Roscoe, 1998).

Identity is also germane to discussions of addiction recovery. Research on identity transformation found that people who acquired an identity of a person in recovery were more likely to transform their lives than those who retained their addict identity (Katskutas, 1994). Women's recovery narratives included reconstruction of identity, discoveries relating to identity and motherhood (Baker, 2000), and reflections on sustaining dramatic transformations (Anderson, 1993). Cognitive shifts also form the basis for theories of identity transformation among women offenders who desist from criminal behaviors, including drug use, and change their lives upon release (Giordano, Cernkovich & Rudolph, 2002; Paternoster & Bushway, 2009).

Neither women nor men are a homogeneous group with innate universal traits, identifying with their gender as the only reference group. Intersectionality is a way of recognizing the layered quality of identity and the overlays of race, class, immigration status, ability, age, etc. Marginalization may be compounded by multiple forms of oppression that influence interactions with social institutions and political and legal systems (Mason, 2010), but intersectionality is a way to see that the whole is greater than the sum of its parts. "Intersectional discrimination is not understood by merely adding together the consequences of race, class and gender discrimination. [...] A person may be discriminated against in qualitatively different ways as a consequence of the combination of the aspects of their identity" (Social Justice Report, 2002, pp. 154-156).

Thus, the alcoholic's social isolation plus the discrimination experienced by women does not equal the extreme stigma at the intersection of woman and alcoholic. The drug addict's exposure to violence plus women's risk of sexual victimization does not equal the exponential impact of sexual and violent victimization on women addicted to drugs (Miller & McDonald, 2009).

Intersectionality lessens the fragmentation of women's identities. Mono-issue advocacy and support can have unintended consequences. Crenshaw (1991) points out in her article on violence against women of color, "The narratives of gender are based on the experience of white, middle-class women, and the narratives of race are based on the experience of black men" (1991, p. 1298). Women from racial and ethnic groups that are subject to discrimination experience the totality of impact at the intersection of gender, race, and class, manifesting as multiple vulnerabilities that compromise their safety and health and that of their families. This is especially important for women from cultural groups that have been targets of various forms of cultural genocide.

Although vulnerabilities meet at the intersections, strengths and resiliencies may also be compounded. Leaders often emerge from adversity and disadvantage by virtue of tenacity and optimism. After experiencing a broader spectrum of social identities, they are capable of forming natural alliances with multiple affinity groups (Fraga, Matinez-Eber, Lopez & Ramirez, 2005). Women in conflict-ridden regions who endure intersecting forms of oppression related to gender, class, ethnicity, and health status survive losses and degradations of such magnitude that we have no instrument to measure them. Nor do we have an explanation for the resiliencies they are capable of drawing upon.

Conclusion

The epistemology of women's recovery has become an international pursuit, or perhaps it has always been. This is a call to unity that draws upon the power of women's protective and healing prowess. What this can mean to women, men, families, and communities affected by drug and alcohol addiction has yet to be written.

Social inclusion, acceptance, and renewed connections to informal networks help promote healing, particularly for those dealing with stigmatized conditions (Betancourt et al., 2010; White, 1998). When people expand networks of community and peer support after drug and alcohol treatment, they maintain abstinence at higher rates (Fiorentine & Hillhouse, 2000; Moos & Moos, 2004). Public elocution of commitments, goals, and milestones is common to many cultures, a therapeutic technique, and a recovery community tradition (NIDA, 1978). Therefore, change undertaken at the macro level can encourage and support change at the micro level, creating synergy between individual and systemic transformation.

Transforming women's lives also involves transforming systems of care, and communities. Treatment is a very time-limited event in the life of a recovering woman. Treatment is successful if, upon completion, it is able to:

- expand her support networks;

- strengthen positive relationships with family and others close to her;
- make new connections with people in recovery;
- access services that increase her (or her family's) well-being.

The continuum of prevention, intervention, treatment, and ongoing recovery are all related strongholds in the community that connect women to recovery-oriented supports.

In many ways, men and women who use drugs and alcohol are more alike than different. They both respond to motivational interviewing, incentives, cognitive-behavioral therapies, medication-assisted treatment, peer support, social inclusion, and trauma treatment. The diverse needs of men and women in addiction recovery are the result of both sex and gender differences, playing out in an infinite array of social and cultural contexts. The profound influences on women's initiation of substance use and their response to it require a gender-mainstreamed, biopsychosocial approach. The ways women sustain, interrupt, and heal from addiction are defined by these differences, as are their help-seeking behaviors and the unique intervention opportunities women of childbearing age present. When these considerations become fundamental to creating and delivering services that protect and engage vulnerable girls and women, we can achieve full equity in access to recovery.

It is hoped that these informed perspectives on gender-responsive prevention, intervention, and treatment, and the transformed lives of women in sustained recovery help inspire new leadership and new capacities. Inserting gender into the mainstream of alcohol and drug research, program planning, and evaluation, and setting an agenda for practice improvement and policy reform can transform systems of care. Gender mainstreaming promises new information and perspectives, shared progress and collective responsibility among nations committed to reducing drug demand worldwide, increasing gender equality, and improving the health of families.

A nation is not conquered until the hearts of its women are on the ground.

Cheyenne Proverb

References

Aldrich, M. R. (1994). Historical notes on women addicts. *Journal of Psychoactive Drugs*, 26(1), 61-64.

American Psychological Association. (1996). Research agenda for psychosocial and behavioral factors in women's health. Retrieved from <http://www.apa.org/pi/women/resources/reports/research.aspx>

Anderson, T.(1993). Types of identity transformation in drug using and recovery careers. *Sociological Focus* 26:133-45.

Ashley, O., Marsden, M. & Brady T. (2003). Effectiveness of substance abuse treatment programming for women: A review. *Am Journal Drug Alcohol Abuse*, 2003; 29(1):19-53.

Australian Bureau of Statistics. (2012). Women prisoners increasing at a faster rate than men. *Prisoners in Australia*, 2012, 6 December. 4517.0.

Baker, P. (2000). I didn't know: Discoveries and identity transformation of women addicts in treatment. *Journal of Drug Issues*, vol. 30(4), (pp. 863-880), Fall 2000.

Battle C., Zlotnick C, Najavits, LM, Gutierrez M, Winsor C. (2002). Posttraumatic stress disorder and substance use disorder among incarcerated women. In Ouimette P, Brown PJ (Eds.), *Trauma and Substance Abuse: Causes, Consequences, and Treatment of Comorbid Disorders*, pages 209-226.

Berridge, V. & Edwards, G. (1987). *Opium and the People: Opiate use ion 19th Century England*. New Haven, CT Yale U Press.

Betancourt, T., Borisova, I., Williams, T., Brennan, R., Whitfield, H., de la Soudiere, M., Williamson, J. & Gilman, S. (2010). Sierra Leone's former child soldiers: A follow-up study of psychosocial adjustment and community reintegration. *Child Development* 2010 Jul-Aug; 81(4): 1077-1095. doi: 10.1111/j.1467-8624.2010.01455.x

Blackburn, A., Mullings, J. & Marquart, J. (2008). Sexual Assault in prisons and beyond: Toward and understanding of lifetime sexual assault among incarcerated women. *The Prison Journal*, 88(32). 351-377.

Brecher, E. & the Editors of Consumer Reports. (1972). *Licit and Illicit Drugs: The Consumers Union Report on Narcotics, Stimulants, Depressants, Inhalants, Hallucinogens, and Marijuana—Including Caffeine, Nicotine, and Alcohol*. Boston: Little Brown & Company.

Campbell, N. & Ettore, E. (2011). *Gendering addiction: The politics of drug treatment in a neurochemical world*. New York: Palgrave McMillian.

Center for Substance Abuse Treatment. (2009). Treatment Improvement Protocol (TIP) Series 51: Addressing the specific needs of women (HHS Publication No. SMA 09-4426). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Centers for Disease Control. (2008). Youth Risk Behavior Survey, 2007. Retrieved February 2, 2013 from: <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5704a1.htm>

Clark, H. W. (2001). Residential substance abuse treatment for pregnant and postpartum women and their children: Treatment and policy implications. *Child Welfare League of America*, 80(2), 179-198.

Clements-Nolle, K., Wolden, M. & Bargmann-Losche, J. (2009). Childhood trauma and risk for past and future suicide attempts among women in prison. *Women's Health Issues*, Volume 19, Issue 3, Pages 185-192 (May 2009).

Comfort, M, Loverro, J & Kaltenbach, K. (2000). A search for strategies to engage women in substance abuse treatment. *Social Work in Health Care*, 31, 59-70.

Coryell, W., Winokur, G., Keller, M., Scheftner, W. & Endicott J. (1992). Alcoholism and primary major depression: A family study approach to co-existing disorders. *Journal of Affective Disorders*. 1992 Feb; 24(2):93-9. National Institute of Mental Health Collaborative Program on the Psychobiology of Depression - Clinical Studies, Bethesda, MD.

Crenshaw, K. (1991). Mapping the margins: Intersectionality, Identity Politics, and Violence against Women of Color. *Stanford Law Review* 43(6):1241-1299.

Curie, J. (2004). Manufacturing addiction: The over-prescription of benzodiazepines and sleeping pills to women in Canada. Vancouver: British Columbia Centre of Excellence for Women's Health. Canadian Women's Health Network. Winter/Spring 2004 Volume 6/7, Number 4/1.

Downs, W., & Miller, B. (2002). Treating dual problems of partner violence and substance abuse. In C. Wekerle & A. M. Wall (Eds.), *The violence and addiction equation: Theoretical and clinical issues in substance abuse and relationship violence*. New York, NY: Brunner-Routledge.

EMCDDA. (2012a) Annual report on the state of the drugs problem in Europe, Lisbon, November 2012. ISBN/ISSN: 1609-6150.

EMCDDA. (2012b). Pregnancy, childcare and the family: key issues for Europe's response to drugs, Lisbon, October 2012. ISBN/ISSN:1830-7957, DOI: 10.2810/72819.

EMCDDA. (2009). Women's voices — experiences and perceptions of women facing drug problems, Lisbon, May 2009. ISBN/ISSN:978-92-9168-350-5.

EMCDDA. (2006). A gender perspective on drug use and responding to drug problems, Lisbon, November 2006. ISBN/ISSN:92-9168-250-0.

EMCDDA. (2005). Differences in patterns of drug use between women and men, Lisbon, March 2005.

EMCDDA. (2000). Understanding and responding to drug use: the role of qualitative research, Lisbon, January 2000. ISBN/ISSN:92-9168-088-5.

European School Survey Project on Alcohol and Drugs, 2011 Report (released May 31, 2012). Retrieved March 29, 2013 from:<http://espad.org/en/Reports--Documents/ESPAD-Reports/>

Eyerman, R. (2001). Cultural Trauma and Collective Identity (2001)Volume: 29, Issue: 2, Publisher: Cambridge University Press, Pages: 302

Farley, M., Baral, I., Kiremireand, M. & Sezgin, U. (1998) Prostitution in five countries: Violence and post-traumatic stress disorder. *Feminism & Psychology*, 1998, Volume 8 (4): 405-426.

Farley, M., Golding, J.M., Young, G., Mulligan, M. and Minkoff, J.R. (2004). Trauma history and relapse probability among patients seeking substance abuse treatment. *Journal of Substance Abuse Treatment*, 27, 161-167.

Felitti, V. (2002). The relationship of adverse childhood experiences to adult health: Gold in to lead." *The Permanente Journal/ Winter, 2002/ Volume 6 No. 1.*

Film Exchange on Alcohol and Drugs. (2009). Joy Barlow on groundbreaking families work in Scotland in the 1980's. Video 249: Glasgow. Retrieved January 21, 2013 from: <http://www.fead.org.uk/video249/Joy-Barlow-on-groundbreaking-families-work-in-Scotland-in-1980%27s.html>

Film Exchange on Alcohol and Drugs. (2011) Elizabeth Ettorre on women, drugs, research and sociology. Video 353: Liverpool. Retrieved January 29, 2013 from <http://www.fead.org.uk/video353/Elizabeth-Ettorre-on-women,-drugs,-research-and-sociology.html>

Fiorentine, R.& Hillhouse, M.(2000). Drug treatment and twelve-step program participation: The additive effects of integrated recovery activities. *Journal of Substance Abuse Treatment*.18, 65-74.

Fraga, L., Martinez-Ebers, V., Lopez, L. and Ramirez, L. (2005). Strategic intersectionality: Gender, ethnicity, and political incorporation. Prepared for delivery at the annual meeting of the American Political Science Association, Washington, DC, August 31-September 4, 2005.

Gareau, S. (2011). Substance abuse treatment avoidance, length of stay, and criminal justice referral for women of reproductive age in South Carolina prior to and after the Whitner decision (1993 to 2007). ProQuest, UMI Dissertation Publishing (Sept. 9, 2011) ISBN-10: 1243777591

Gilfus, M. E. (2002, December). Women's experiences of abuse as a risk factor for incarceration. Harrisburg, PA: Pennsylvania Coalition Against Domestic Violence. Retrieved April 22, 2011from: National Electronic Network on Violence Against Women, <http://www.vawnet.org>.

Giordano, C., Cernkovich A., and Rudolph, L. (2002). Gender, crime, and desistance: Toward a theory of cognitive transformation. *American Journal of Sociology*, 107, 990-1064.

Gülser Corat, S. and Ruprecht, L. (2009) 'Module 2: Key Concepts', ©UNESCO: Gender Equality eLearning Programme, [Online] Available at: <http://www.unesco.org/new/index.php?id=34592> (Accessed: 14 February 2013).

Harris, M. (1998). Trauma recovery and empowerment: A clinician's guide to working with women in groups. New York, NY: The Free Press.

Herman, J. (1982). Father-daughter incest. Harvard University Press: Cambridge, MA.

Herman, J. (1992). Trauma and recovery. New York: Basic Books.

Hodgins, D., El-Guebaly, N., & Addington, J. (1997). Treatment of substance abusers: Single or mixed gender programs? *Addiction*, 92, 805-812.

Hurst, A. (2013). Women and Addiction Treatment: An Interview with Nancy D. Campbell. All Treatment <http://www.alltreatment.com/women-treatment-interview-nancy-campbell>

Inciardi, J., Lockwood, D., & Pottieger, A. (1993). Women and crack cocaine. New York: MacMillan.

Kaskutas, L. A. (1994). What do women get out of self-help? Their reasons for attending Women for Sobriety and Alcoholics Anonymous. *Journal of Substance Abuse Treatment*, 11, 185-195.

Keire, M. (1998). Dope Fiends and Degenerates: The Gendering of Addiction in the Early Twentieth Century. *Journal of Social History*. Vol. 31, No. 4 (Summer, 1998), pp. 809-822. Published by: Oxford University Press Article Stable URL: <http://www.jstor.org/stable/3789302> 1998).

Kingi, V. (2000). The children of women in prison: A New Zealand study. Paper presented at the Women in Corrections: Staff and Clients Conference, Australian Institute of Criminology/Department for Correctional Services, Adelaide, Australia, October 31, 2000.

Komarovskaya, I. (2009). Trauma, PTSD, and the cycle of violence among incarcerated men and women. A Dissertation presented to the faculty of the Curry School of Education University of Virginia in partial fulfillment of the requirements for the degree Doctor of Philosophy. August, 2009.

Koren, G., Graham, K., Shear, H. and Einarson, T. (1989). Bias against the null hypothesis: The reproductive hazards of cocaine, *The Lancet*, (December 16, 1989), pp. 1440 - 1442.

Kumpfer, K. (2008). Breaking the cycle of incarceration: Using evidence-based programs to strengthen families to improve child outcomes. Department of Health Promotion and Education, University of Utah.

Kumpfer, K. (1998). Links between prevention and treatment for drug-abusing women and their children. In Wetherington, C. & Romans A. (Eds.). *Drug Addiction Research and the Health of Women*. 417-437.

Levant, R., Richmond, K., Cook, S., House, A. & Aupont, M. (2007). The Femininity Ideology Scale: Factors structure, reliability, convergent and discriminant validity, and social contextual variation, *Sex Roles* 57:373–383.

Lawrie, R. (2003). Speak out speak strong: Researching the needs of Aboriginal women in custody. Sydney, NSW: Aboriginal Justice Advisory Council. Retrieved February 26, 2013 from: [http://www.lawlink.nsw.gov.au/lawlink/cpd/ll_cpd.nsf/vwFiles/speak_out_speak_strong_rowena_lawrie_ajac_2003.pdf](http://www.lawlink.nsw.gov.au/lawlink/cpd/ll_cpd.nsf/vwFiles/speak_out_speak_strong_rowena_lawrie_ajac_2003.pdf/$file/speak_out_speak_strong_rowena_lawrie_ajac_2003.pdf)

Lewin, T. (1997) Abuse Laws Cover Fetus, a High Court Rules. *The New York Times*, October 30, 1997. Retrieved from: http://www.nytimes.com/specials/women/warchive/971030_903.html

Mason, N. (2010). Leading at the intersections: An introduction to the intersectional approach model for policy & social change. Women of Color Policy Network at New York University's Robert F. Wagner Graduate School of Public Service.

Mellinger, G. D., Balter, M. B. & Uhlenhuth, E. H. (1984). Prevalence and correlates of the long-term use of anxiolytics. *Journal of the American medical Association*, 251(3), 375-379.

Messina, N., Grella, C., Cartier, J. & Torres, S. (2010). A randomized experimental study of gender-responsive substance abuse treatment for women in prisons. *Journal of Substance Abuse Treatment*, 38 (2010)97-107.

Meyer-Bahlburg, H. (2009). Variants of gender differentiation in somatic sex disorders development: Recommendations for Version 7 of the World Professional Association for Transgendered Health Standards of Care, *International Journal of Transgenderism*, 11:4, 226-237. Retrieved from <http://dx.doi.org/10.1080/15532730903439476>.

Miller, N. (2011). Chapter 8:How one community-based group collaborates with a State corrections agency to provide leadership training for incarcerated women. In R. Immagerion (Ed.) *Women and Girls in the Criminal Justice System: Policy Issues and Practice Strategies*, Vol. 2. Kingston, N. J.: Civic Research Institute.

Miller, N., & MacDonald, D. (2009, March). Women, substance abuse & marginalization: The impact of peer led leadership training on women in recovery. Paper presented at the Academy of Criminal Justice Science, Boston, MA.

Miller, N. & Najavits, L. (2012). Creating trauma-informed correctional care: A balance of goals and environment. *European Journal of Psychotraumatology*. 2012, 3: 17246 - DOI: 10.3402/ejpt.v3i0.17246.

Moos, R. H., & Moos, B. S. (2004). Long-term influence of duration and frequency of participation in Alcoholics Anonymous on individuals with alcohol use disorders. *Journal of Consulting and Clinical Psychology*, 72, 81-90.

Najavits, L. M. (2006). Managing trauma reactions in intensive addiction treatment environments. *Journal of Chemical Dependency Treatment*, 8, 153-162.

Najavits, L. M. (2002). Seeking safety: A treatment manual for PTSD and substance abuse. New York: Guilford Press.

NAACP. (2013). Criminal justice fact sheet. 2009 - 2013 National Association for the Advancement of Colored People Web Site. Retrieved March 15, 2013 from: <http://www.naacp.org/pages/criminal-justice-fact-sheet>

National Center on Substance Abuse and Addiction at Columbia University. (CASA) (2003). The formative years: Pathways to substance abuse among girls and young women 8-22. Retrieved from: http://www.casacolumbia.org/articlefiles/380-Formative_Years_Pathways_to_Substance_Abuse.pdf

National Center on Substance Abuse and Addiction at Columbia University. (CASA) (1998). Under the rug: Substance abuse and the mature woman. Retrieved from: <http://www.casacolumbia.org/articlefiles/379-Under%20the%20Rug.pdf>

National Institute on Drug Abuse. (2013). 2012 Monitoring the Future Results. National Institutes of Health. Retrieved February 15, 2013 from: <http://www.drugabuse.gov/related-topics/trends-statistics/monitoring-future>

National Institute on Drug Abuse. (2011). HIV and women research briefs. Retrieved from <http://drugabuse.gov/nidahome.html>

National Institute on Drug Abuse (NIDA).(2010). NIH Podcast Shines Light on Prescription Drug Abuse in Women, April, 5 2010. Retrieved January, 29, 2013 from: <http://www.drugabuse.gov/news-events/podcasts/2010/04/nih-podcast-shines-light-prescription-drug-abuse-in-women?page=1>

National Institute on Drug Abuse (NIDA). (2005). A collection of NIDA notes: Articles that address women and gender differences research. U.S. Department of Health and Human Services, National Institutes of Health, National Institute on Drug Abuse.

National Institute on Drug Abuse. (1978). The International Challenge of Drug Abuse: Division of Research NIDA Research Monograph 19, Robert C Petersen. Department of Health, Education, and Welfare, Public Health Service Alcohol, Drug Abuse, and Mental Health Administration.

New Zealand Department of Corrections. (2012). Facts and statistics. Retrieved March 3, 2013 from: http://www.corrections.govt.nz/about-us/facts_and_statistics.html

Nolen-Hoeksema, S. (2004) Gender differences in risk factors and consequences for alcohol use and problems. *Clinical Psychology Review*, 24, 981 – 1010. Retrieved from http://www.yale.edu/snhlab/Health%20Consequences_files/Nolen-Hoeksema,%202004.pdf

Office of Applied Studies, Substance Abuse and Mental Health Services Administration. (2011). Treatment Episode Data Sets. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Paltrow, L. & Flavin, J. (2013). Arrests of and forced interventions on pregnant women in the United States (1973-2005): The implications for women's legal status and public health. *Journal of Health Politics, Policy and Law*.

Paternoster, R. & Bushway, S. (2009). Desistance and the "feared self": Toward an identity theory of criminal desistance. *Journal of Criminal Law and Criminology*, Vol. 99 No. 4.

Price, A. & Simmel, C. (2002). Partners' influence on women's addiction and recovery: The connection between substance abuse, trauma, and intimate relationships. National Abandoned Infants Assistance Resource Center. School of Social Welfare, University of California at Berkeley.

Poole, N. & Dell, C. (2005). Girls, women and substance use. The Canadian Centre on Substance Abuse and the BC Centre of Excellence for Women's Health. ISBN 1-896323-67-7

Pursley-Crotteau, S. (2001). Perinatal crack users becoming temperate: The social psychological process. *Health Care for Women International*. 22, 49-66.

Ramadan, F. (2012). Gender Mainstreaming in Policy Making: An Overlooked Approach in Healthcare and Pharma? IHS Healthcare and Pharma Blog. Retrieved from: <http://healthcare.blogs.ihs.com/2012/01/18/gender-mainstreaming-in-policy-making-an-overlooked-approach-in-healthcare-and-pharma/>

Roscoe, W. (1998). Changing ones: Third and fourth genders in native North America. New York: St. Martin's Press.

Simoni-Wastila, L. (2000). The use of abusable prescription drugs: The role of gender. *Journal of Women's Health and Gender-based Medicine*, 9 (3), 289-297.

Simoni-Wastila, L. (1998). Gender and psychotropic drug use. *Medical Care*, 36(1), 88-94.

Smart, C. Women of legal discourse. In Daly, K. & Maher, L. (1998). *Criminology at the crossroads: Feminist readings in crime and justice*. New York; Oxford: Oxford University Press.

Social Justice Report (2002), Aboriginal and Torres Strait Islander Social Justice Commissioner, New South Wales, Australia.

Straussner, S. & Brown, S. (Eds.) (2002) Handbook of women's addiction treatment. San Francisco: Josey-Bass. Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. Treatment Episode Data Set (TEDS): 2000-2010. State Admissions to Substance Abuse Treatment Services, DASIS Series: S-63, HHS Publication No. SMA-12-4729. Rockville, MD; Substance Abuse and Mental Health Services Administration, 2012.

Swiss Federal Office of Public Health. (2010). The challenge of addiction: Foundations for a future oriented policy on addiction in Switzerland.

Thompson, B., Levitt, P. & Stanwood, G. (2009). Prenatal exposure to drugs: effects on brain development and implications for policy and education. *Nature Reviews Neuroscience*, Vol. 10 April 2009, pp. 303-312.

Travers, K. et al. (2008). Women's Safety: A Shared Global Concern, *Compendium of Practices and Policies 2008*. Montreal: International Centre for the Prevention of Crime.

True, J & Mintrom, M. (2001). Transnational networks and policy diffusion: The case of gender mainstreaming. *International Studies Quarterly*, Vol. 45, No. 1. (Mar., 2001), pp. 27-57.

United Nations Department of Economic and Social Affairs. (2012). The Millennium Development Goals Report 2012. ISBN: 978-92-1-101258-3. United Nations: Vienna.

United Nations Evaluation Group (UNEG). (2011). Integrating human rights and gender equality in evaluation: Towards UNEG guidance. Retrieved from: <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/IOS/temp/HRGE%20Handbook.pdf>

United Nations Office on Drugs and Crime. (2012) World Drug Report 2012 (United Nations publication, Sales No. E.12.XI.1).

United Nations Office on Drugs and Crime (2010). Compilation of Evidence-based Family Skills Training Programmes, Vienna. Retrieved from: http://www.unodc.org/docs/youthnet/Compilation/10-50018_Ebook.pdf

United Nations Population Fund. (2009). Addressing gender based violence: Strategy and framework for action. New York, UNPFA, 2009.

United Nations Millennium project. (2005). Investing in development: A practical plan to achieve the Millennium Development Goals. 2005.

United Nations Office on Drugs and Crime (UNODC) (2004), Global Challenges Section. Substance abuse treatment and care for women: Case studies and lessons learned. Drug Abuse Treatment Toolkit. (United Nations Publication Sales No. E.04.XI.24, ISBN 92-1-148194-5) Retrieved from http://www.unodc.org/pdf/report_2004-08-30_1.pdf

United Nations. (1997). Report of the Fourth World Conference on Women, Beijing, 4 - 15 September 1997 (United Nations publication, Sales No. E.96.IV.13), chap. I, resolution 1, annex II

U.S. Department of Health and Human Services. (2010). Women's health USA 2010. Rockville, MD: Health Resources and Services Administration.

U.S. Department of Health and Human Services, Health Resources and Services Administration. Office of Women's Health. (2010). Action steps for improving women's mental health. Retrieved from <http://www.womenshealth.gov>

Verdonk, P., Benschop, Y., De Haes, J. & Lagro-Janssen, A. (2008). Making a gender difference: case studies of gender mainstreaming in medical education. *Med Teach*, 30(7), e194-e201. doi: 10.1080/01421590802213206

Walby, S. (2005). Introduction: Comparative gender mainstreaming in a global era” International Feminist Journal of Politics, 7:4 December 2005, 453-470

Webster, R. (1995). Why Freud was wrong: Sin science and psychoanalysis. New York: Basic Books.

Wesley, M. (2012). Marginalized: The Aboriginal women’s experience in federal corrections. The Aboriginal Corrections Policy Unit, Public Safety Canada, Ottawa, Ontario.

White, W. (1998). Slaying the Dragon: The history of addiction treatment and recovery in America. Bloomington, IL: Chestnut Health Systems.

World Health Organization. (2009). Integrating gender into HIV/AIDS programmes in the health sector: Tool to improve responsiveness to women’s needs. ISBN: 978-92-4-1597197. Available from: http://www.who.int/gender/documents/gender_hiv_guidelines_en.pdf

World Health Organization. (2004). Gender disparities in mental health. A Report of the World Health Organization, Department of Mental Health and Substance Abuse. World Health Organization, Geneva.

Women’s Addiction Foundation. (n.d.). The history of the Women’s Addiction Foundation. Retrieved February 13, 2013 from: <http://www.womenfdn.org/history.html>

Women, Co-Occurring Disorders and Violence Study. (2003). Program summary. Retrieved from <http://www.prainc.com/wcdvs/pdfs/ProgramSummary.pdf>

Zweben, J. E. (1996). Psychiatric problems among alcohol and other drug dependent women. Journal of Psychoactive Drugs, 28, 345–366.

Chapter II

What is the role of gender in prevention?

Kevin A. Sabet (1), Mari Cohen (2), Marica Ferri (3)

(1) Director, Drug Policy Institute, Assistant Professor, Department of Psychiatry, Division of Addiction Medicine, University of Florida College of Medicine, (FL) USA

(2) Junior Fellow, Drug Policy Institute, University of Florida, (FL) USA

(3) Scientific Analyst – Best Practice Interventions, Best Practice and Scientific Partners Unit, European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)

Prevalence estimates

Underlying gender trends and examining the role of prevention can be understood only by examining the considerable variation in the data, for both different countries and different drugs. Patterns, however, are detectible. For example in Europe, gender equality in cannabis use and binge alcohol consumption is higher in countries with a higher prevalence of use. Female prevalence rates remain lower for the most severe drug use. The explanations may lie in lifestyle influences that are intrinsically related to gender, or in the ever-changing factors that determine the stages of developing drug fashions across Europe (EMCDDA, 2006).

Detailed analysis of differences in male and female drug use can yield important information about changing lifestyles in relation to patterns of drug use and about the potential efficacy of drug prevention and drug treatment services for different client groups. If young females are increasingly likely to experiment with drugs in the same manner as their male counterparts, the likely impact on future drug use trends must be determined. It is necessary to identify the different influences of each sex on overall trends in order to understand their direction and develop appropriate responses. Also, the markedly higher proportion of female to male students who have used tranquillisers or sedatives without a doctor's prescription and possible increases in male use of these substances merits future research attention.

In general in the world, drug use is considerably more common among men than among women, especially when regular, intensive, or problematic use is considered. Some national research studies suggest that, based on some consumption measure, the gender gap may be narrowing in a few countries for some types of drug use. However, parity, or near parity, of drug use among males and females is found only in lifetime prevalence among school students, and even then only in a minority of countries (EMCDDA, 2006).

Female problem drug users have overall similar or lower mortality rates than males, but their excess risk of death is higher than of their male counterparts,

also due to lower population mortality rates. This elevated excess risk in female drug users is illustrated by the COSMO study carried out in eight European cities (Bargagli et al., 2006). In Barcelona, the risk of death among drug-using women was found to be 54 times that of women in the general population, whereas drug-using men had a risk 21 times that of men in the general population. In Rome, the respective figures were 38 for female drug users and 14 for male drug users (Bargagli et al., 2006).

CANNABIS	Cannabis use is generally higher among males. For example, the ratio of males to females among young adults reporting cannabis use in the last year ranges from six in Portugal to about 1 in Norway. For lifetime use the ratio is ranging from unity in Spain, France, and Romania to about 2.5 boys to each girl in Greece and Cyprus.
AMPHETAMINES	Amphetamines users entering treatment show a ratio of 2, lower than for any other illicit drug.
ECSTASY	Use of ecstasy in the last year is generally reported more often by males than by females in all countries.
COCAINE	In 16 of the EMCDDA's reporting countries, last year's male to female ratio of cocaine use among young adults is at least two.

Table 1: Some differences in male and female drug use in the European data (EMCDDA, 2012b)

The gap in drug use prevalence between males and females in the United States has narrowed, particularly in lower grades, as females have younger initiations into drug use. In 8th grade, females have higher rates of using inhalants, cocaine (powder and crack cocaine), prescription painkillers, amphetamines, tranquilizers, and over-the-counter cough and cold medicines, though by 12th grade, rates of male drug use for all of these substances as well as heroin and hallucinogens, though the difference in marijuana use is small (Johnston, O'Malley, Bachman, and Schulenberg, 2011).

Effectiveness of prevention and gender differences

Prevention programs are cost effective; in the United States in 2002, an estimated \$18 would be saved for every \$1 invested in effective school-based intervention programs, and substance abuse initiation would be delayed for an average of 2 years for 1.5 million children and adolescents. State and local governments would save \$1.3 billion within two years, reduced social costs from substance abuse-related medical care, resources, and lost productivity over a lifetime would be approximately \$33.5 billion, and preserve \$65 billion in quality of life costs over a lifetime (Miller and Hendrie, 2008).

Protective factors that are particularly effective for girls include strong family bonds and a close relationship with at least one adult, especially the mother; a group of supportive peers; and clear family rules against substance use. Strong universal and selective prevention programs take these factors into account and help girls develop knowledge about the harms of substance use, teach them how not to succumb to peer pressure, and how to cope with stress. Programs that include family and community components are particularly strong. Sexual abuse, violence, and trauma as well as eating disorders are strongly related to female substance abuse, though there is a lack of programs working to prevent substance use in these populations outside of treatment settings.

Challenges of gender in selective versus universal prevention: differences in messages and strategies

Prevention programs may be universal or selective: targeting entire populations or subsets of populations, or selected groups with increased risk factors, respectively. Most drug prevention programs are aimed at children and adolescents ages 10-20. The goals of prevention programs most often include increasing knowledge about drugs and drug use, reducing use and abuse of drugs, delaying onset of first or repeated use, and minimizing the harm caused by drugs. School-based drug prevention programs are particularly popular, as they are universal and aim to target children before they start using drugs. Social Learning Theory is most often cited in successful prevention programs. It assumes that young people are susceptible to peer pressure and to social influences and attitudes towards drugs, and that they need an opportunity to practice modeled behavior and to be positively reinforced in order to successfully change behavior. These programs work to make students aware of these pressures and teach them appropriate skills to avoid them. Overall, interactive presentations with discussions, interaction, and role-playing, are more successful at preventing drug use (Midford, 2009; Cuijpers, 2003; Turner and Shepherd, 1999).

Evidence of the effectiveness of universal prevention programs is mixed when observing differences between the sexes. Project SMART was successful in preventing cigarette, alcohol, and marijuana use for girls but not boys (Graham, Johnson, Hansen, Flay, and Gee, 1999). However, the Keepin' it REAL prevention program had no gender differences in recent substance use, and was more effective in developing anti-drug norms for boys than for girls (Kulis, Yabiku, Marsiglia, Nieri, and Crossman, 2007). An evaluation of Drug Abuse Resistance Education Plus (D.A.R.E Plus) program, which includes a peer-led parental class, extracurricular activities, mailings, and community programming involving parents, found that the program reduced drug, alcohol, and cigarette use for boys, but not girls (Perry, Komro, Veblen-Mortenson, Bosma, Farbakhsh, and Munson, et al., 2003).

Results for preventive interventions for high-risk girls are mixed as well. For example, a program called ALERT Plus extended 'Project ALERT' through 9th grade. Project ALERT teaches the consequences of drug use, thus reducing barriers to resisting drug use, and highlighting the benefits of non-use. Additional sessions kept the themes of Project ALERT, while taking into account the social and developmental changes beginning in high school. The additional programming session significantly reduced weekly alcohol and marijuana use, reduced perceptions of favorable outcomes of drug and alcohol use, and increased the ability to resist peer pressure (Longshore, Ellickson, McCaffrey, and St. Clair, 2007). However, in a selective intervention of high-risk female adolescents that aimed to improve social skills and restructure peer groups, the program was not effective in improving the acceptability and perceived consequences of drug use, and in fact was counterproductive, as girls in the intervention group were nearly three times more likely to use marijuana after the program (Palinkas, Atkins, Miller, and Ferreira, 1996).

Studies have found that gender-specific approaches to both universal and selective drug prevention programs may increase program effects. Certain techniques and settings are more helpful for girls than boys. Girls benefit more from reducing tension and stress, and by learning stress-reduction techniques and facilitating expression, while focusing on behaviorally-oriented life skills. Girls prefer small group settings that allow for expression and casual exchange, and the trainer should be female and share personal experiences (European Monitoring Centre for Drugs and Drug Addiction, 2006). Programs with the highest rates of success for girls include three elements: first, they teach girls social resistance skills in order to reduce the effects of peer pressure, second, they teach the skills necessary to avoid the influence of antisocial peers and to increase their networks of positive friends, and third, they teach girls to estimate the prevalence of drug and alcohol use among their peers, to counteract the idea that "everyone is doing it" (Kumpfer, Smith, and Summerhays, 2008).

A computer-based universal intervention designed specifically to prevent drug use in adolescent girls has shown promising results. The program emphasized the role of stress in girls' lives, focusing on what stress is, the relationship between drugs and stress, dealing with stress, and techniques to reduce stress. Compared to the control group (which received a universal prevention program), participants receiving the tailored intervention were more likely to use healthy stress-reduction techniques, were less likely to approve alcohol, drugs, and cigarettes, and were less vulnerable to peer pressure (Schinke and Schwinn, 2005).

Gender-specific interventions, both selective and universal, may be more successful for girls if they include certain elements that are of particular concern, and if these issues are discussed without the presence of boys. These issues include the role of drugs and weight control as well as body image; pregnancy, sexual abuse, and menstruation; skills training to cope with stress; and addressing males' roles in introducing women to drugs (Rohrbach and Milam, 1993).

Protective factors in prevention

While many factors for risk and prevention of drug use are similar for men and women, there are some that are gender-specific. In a study of risk and protective factors for drug and alcohol use among Swedish adolescents, Bränström, Sjöström, and Andréasson (2007) found that among females, having antisocial or norm-breaking friends predicted alcohol and cannabis use, but having a positive attitude toward restrictions and drug and alcohol prevention programs, as well as having a curfew, were protective. Among adolescent girls and their mothers in New York City, girls who went home after school (rather than engaging in unstructured activities) drank less alcohol and used fewer inhalants. Girls who reported having positive body image drank less and used fewer prescription drugs inappropriately. Families that had rules against substance use or encouraged daughters to abstain from alcohol and drug use were also preventative, as their girls had lower rates of alcohol and inhalant use. Mothers' knowledge of their daughters' whereabouts, activities, and companions, as well as mothers' availability to be contacted by her daughter reduced alcohol, inhalant, and illicit prescription drug use (Schinke, Fang, and Cole, 2008). In addition, a strong attachment or relationship with parents, commitment to school and a strong academic record, and involvement in religious activities are preventive (Hawkins, Catalano, and Miller, 1992; Griffin, Scheier, Botvin, and Diaz, 2000). Females brought up with traditional gender-role attitudes are less likely to drink or use drugs, as these roles discourage substance use among women (Rohrbach and Milam, 2003).

Peer education

Peer education has become an increasingly popular method of health promotion interventions, particularly in terms of risky sexual behavior. There are multiple forms of peer education, including teaching an entire class or subset of a class, informal meetings or discussions in groups or individually, and counseling. There are a few assumptions that underlie peer education, though it is not guided by a specific theory as traditional prevention programs are:

- By sharing experience, status, or background, peers may be more credible sources of information than adults or outside educators.
- Peers can continually reinforce learning through ongoing contact and as positive role models.
- Children and adolescents are more likely to talk with their peers about sensitive subjects, such as drug use or sex, as they are not seen as authority figures.
- Peer education can be beneficial for educating harder-to-reach children and adolescents.
- It is more cost-effective than traditional methods.

Overall, however, there are very few well-designed outcome evaluations, and the majority of peer education programs focus on HIV and pregnancy prevention rather than on drug use. In addition, a review of peer education programs for sexual

health in the European Union found no clear evidence of effectiveness (Harden, Oakley, and Oliver, 2001; Tolli, 2012; Turner and Shepherd, 1999).

Tolli (2012) identifies certain contributing factors to the success of a peer education program. First, by recruiting appropriate peer educators, who need to be accepted by the intervention group and have natural leadership skills. Second, peer educators need to have a say in the content and direction of the intervention program, as they are most aware of the specific concerns of the group and because it increases their motivation for participating in the intervention. Finally, peer educators must be appropriately trained and supervised. According to the European Guidelines for Youth AIDS Peer Education (Svenson, 1998), training programs should have a preparatory meeting, teach formal knowledge, focus on personal development and cultural issues, and provide skills training, supplementary training and assistance, and continuing support.

One of the few tested peer interventions to prevent drug use is The Friendly PEERsuasion program, which was developed based on social influence and life skills models, and uses a combination of adult leadership and peer reinforcement to develop support systems, knowledge, and skills that help girls avoid social pressures and negative messages. Girls ages 11-14 first participated in a program led by an adult that focused on harmful effects of substance abuse, ways to manage stress, and how to recognize peer pressure to use drugs. After completing this program, girls were certified as peer educators, and went on to plan and implement a substance abuse prevention program for younger children (ages 6-10). Friendly PEERsuasion significantly reduced initial or repeat substance use, and helped girls leave situations where substances, alcohol in particular, were being used (Weiss and Nicholson, 1998).

Addressing gender differences within families and communities

As mentioned before, strong family relationships are particularly important protective factors for female substance abuse, particularly a strong relationship with the mother. Community programs that aim to change norms and attitudes toward drug use are important as well. Environment-level theories posit that changing these norms and attitudes, enabling the implementation of prevention programs, and empowering community leaders to take responsibility for preventing drug use will help decrease drug use (Pentz, 1996).

Family and parenting programs have been developed due to the strong correlation between parents' behavior and their relationships with their children and risk of drug use. The programs teach the importance of modeling behavior, attitudes towards substance use, identifying risk factors for substance use, and family relationships and parenting and conflict management skills (Midford, 2009; Cuijpers, 2003). Prevention programs that involve parents need to be engaging, affordable, and flexible in order to impact the largest number of families. In response to these needs, Schinke, Fang, and Cole (2009) developed a self-guided, computer-delivered intervention (either internet-based or CD-ROM) for mothers and daughters to use together. Mothers were taught communication

skills, to monitor their daughters' activities, increase their daughters' self-esteem and self-image, develop family rituals and traditions, and to establish rules and consequences about substance use, while girls were taught to manage stress, mood, and conflict, identify and refuse peer pressure, enhance self-esteem and body image, and assess the prevalence of drug, alcohol, and tobacco use of their peers. Two years after the program, mothers reported significantly improved communication and closeness to their daughters, establishing rules against substance use, monitoring their daughters' time away from home, observance of family rituals, and decreased weekly alcohol consumption. Girls also reported significantly more positive communication and closeness with their mothers, knowledge of family rules about substance use and that their mothers were monitoring their whereabouts, ability to cope with stress, ability to refuse offers of alcohol, drugs, and cigarettes, and awareness that substance use is not normative behavior. In addition, girls who participated in the program reported less use of alcohol, marijuana, inhalants, and illicit use of prescription drugs, and had lower intentions to use drugs, alcohol, and tobacco in the future.

In addition to family prevention, community programs have been developed to compliment the messages children receive in school-based programs. These community interventions result from a growing belief among practitioners and scientists that combining multiple interventions at different levels (e.g., school, family, community) is more effective than a single intervention. Community interventions may include mass media campaigns, community mobilizing committees, educational activities in various venues throughout the community, and general trainings for people who work with adolescents. Activities are not only aimed at children, but also at parents and organizations throughout the community (Midford, 2009; Cuijpers, 2003).

Well-designed community interventions are difficult, but there have been studies that have provided reliable results. Biglan, Ary, Smolkowski, Duncan, and Black (2000) conducted a community intervention to prevent adolescent tobacco use. Towns randomized to receive both a school-based and community intervention (rather than school-based alone) were provided with media messages, including billboards, ads or public service announcements on the radio; mailings and presentations; activities; give-aways and presentations; guides for parents about family communication; and education and campaigns to prevent stores from selling cigarettes to minors. Towns that received the community and school-based preventions had significantly lower rates of smoking prevalence than towns that only received the school-based intervention.

The Midwestern Prevention Project targeted reducing alcohol, tobacco, and marijuana use in middle or junior high school. The community-level intervention consisted of media coverage, videotapes and commercials, a school-based program in with parental participation, parent-principal meetings and parent-child communication instruction, organization and training of community leaders to develop action groups, and policy changes, including refining drug-free school zone policies and funding mandates for substance prevention and treatment. Cigarette and marijuana use were reduced 8-15%. Three years after the intervention, there were significant reductions in tobacco and marijuana use, and reductions were equivalent in adolescents at both higher- and lower-risk. Beyond the three-year

mark, heavy use rates or daily cigarettes, monthly drunkenness, and marijuana use more than twice per week were reduced more in the community intervention group than for the school-based program alone (Pentz, 2000; Johnson, Pentz, Weber, Dwyer, Baer, and MacKinnon, et al., 1990).

A community-based prevention and treatment program is currently undergoing evaluation in Italy. Project DAWN (Drugs and Alcohol Women Network) has been designed specifically to address gender differences in substance abuse, addiction and treatment, and to re-orient prevention and treatment programs to a gender mainstreaming approach. The program has three primary targets: adolescent women who are at risk for substance dependence but have not yet initiated use, women who use drugs occasionally, and women who use drugs regularly and need intervention and treatment. Additionally, the program works to help drug addiction professionals understand gender differences and substance use, and to educate parents, teachers, and social workers about how best to educate young women about addiction. While constructing these programs, Project DAWN creates a national network of drug addiction professionals who are able to draft guidelines and effectively train the public about gender and addiction (Presidenza del Consiglio dei Ministri, 2009; O'Neil, 2011). Furthermore, DAWN is developing guidelines that focus on the signs and symptoms of drug use for parents, teachers, and health and school professionals, in order to specifically target adolescents at risk of substance dependence. Likewise, a website tailored for adolescent girls with information about addiction and training courses for parents that focus on female-specific concerns about drug use and addiction are also being developed. To help women who casually use drugs, Project DAWN will create a help line for drug dependence questions and concerns, develop meetings with professionals where women can come and address their concerns, and provide psychosocial counseling. For women who are addicted to substances, tailored services will be developed, women will be provided with information on how best to protect themselves from HIV and other sexually transmitted infections, and guidelines will be developed for pregnant women with drug dependence and their newborns (Presidenza del Consiglio dei Ministri, Italy, 2009)

Empowerment, resilience and co-silience

Empowerment and self-efficacy are key concepts in Social Learning Theory, which as mentioned earlier is the basis for many successful drug prevention programs. These concepts are critical for developing the confidence and ability to adopt a particular behavior and to shape a person's expectations that he or she will succeed, as young people are more likely to practice socially learned behavior if they believe it will be effective. Role-playing and discussion around pressures to use drugs can empower participants in drug prevention programs and make it more likely that the intervention will succeed (Turner and Shepherd, 1999).

Resiliency is the ability to cope in the face of adversity. It is grounded in Social Learning Theory and says behavior is learned through watching other people and how they behave and how others respond to their behavior. Cognitive

Behavioral Therapy, posits that people's thoughts about themselves are of primary importance. Health Realization Theory says people innately are able to function with self-esteem and good judgment, and secure and positive feelings emerge from learning and acting upon good moods (Turner, Norman, and Zunz, 1995).

Resiliency is most strongly influenced by self-esteem and self-efficacy, though resilient people often also have intellectual capabilities, particularly good verbal and communication skills and a sense of direction or mission, an easy temperament that helps attract positive responses from adults, good social and problem-solving skills, a sense of humor, and strong empathy skills, as well as the ability to psychologically separate from unhealthy situations and environments. There are a number of protective factors that enhance resiliency, including having a warm, positive relationship with a caring adult, membership in a cohesive and supportive family with high but realistic expectations, parents who have good parenting and communication skills, are positive role models, have strong traditions and rituals, and being in a school and community that is supportive and caring. For girls, specifically, additional protective factors include having a mother who is employed, a father who has attained a high level of education, having relationships with caring adults outside the family, popularity with peers, positive high school experiences, having responsibilities within the family, assertiveness, problem-solving skills and participation in sports (Turner, Norman, and Zunz, 1995; Norman, 1997).

Drug prevention programs should incorporate gender-specific resiliency to help girls develop the ability to avoid peer pressure and overcome difficult home or school environments, if necessary. Techniques may include teaching ways to enhance self-esteem, self-efficacy, and problem-solving skills, as these are protective factors for drug use. Same-sex groups are also recommended, as girls are more comfortable to talk about subjects they otherwise might not, such as sexual issues, concerns about puberty, and dating and relationships (Turner, Norman, and Zunz, 1995)

Sexual abuse, violence and trauma

In 2010, the rate of intimate partner violence in the United States (including rape or sexual assault, robbery, aggravated assault, and simple assault) was 3.6 per 1,000 population, and 80% of the victims were female. Women between the ages of 18-34 suffered from the highest rates of intimate partner violence (Catalano, 2012).

Victims of intimate partner violence and trauma suffer a number of health consequences, both physical and psychological. After post-traumatic stress disorder (PTSD) and depression, alcohol and drug abuse is the mental health problem most often seen in victims of violence and trauma in industrialized countries (Campbell, 2002). Additionally, researchers have found that 55-95% of women in drug treatment facilities were sexually abused as children (Kumpfer, Smith, and Summerhays, 2008).

Three theories seek to explain the relationship between assault and trauma and substance use. First, women with substance use problems may be

more vulnerable to assault because of the lifestyle associated with substance use, impaired ability to detect predators, and increased likelihood of engaging in high-risk behaviors. In support of this idea, it was found that hard drug and marijuana users are 5.06 and 1.46 times more likely to be assaulted, respectively. The second theory is that assault leads to substance use to cope with PTSD or other mental health problems stemming from a traumatic incident. Drugs may quickly reduce negative emotions and allow for an escape from the situation. Third, substance abuse and assault may have a reciprocal or “vicious cycle” relationship, in which assault increases the likelihood of substance abuse, which in turn leads to further assault and trauma and the need to continue using drugs (Kilpatrick, Acierno, Resnick, Saunders, & Best, 1997).

Eating disorders

Eating disorders have long been associated with alcohol and drug abuse. This co-morbidity is particularly pronounced in women suffering from bulimia nervosa and bulimia behaviors; studies estimate that 20-40% of women with bulimia have a history of alcohol and drug abuse (Holderness, Brooks-Gunn, & Warren, 1994; Conanson, Kolmek, & Sher, 2006). In a study of drug use among women with eating disorders, patients with bulimia nervosa were more likely to have used alcohol, amphetamines, barbiturates, marijuana, tranquilizers, and cocaine than women with anorexia nervosa, and women with binge eating disorder were more likely to use tranquilizers (Wiederman & Pryor, 1996). However, while women with anorexia nervosa are less likely to use substances than women with bulimia, approximately 7-23% of patients abuse alcohol or illicit drugs; most often substances that will promote thinness, such as amphetamines or cocaine, which suppress appetite and increase metabolism (Krahn, 1991; Wiederman & Pryor, 1996; Kumpfer, Smith, and Summerhays, 2008).

A few theories exist regarding the co-morbidity of substance abuse and eating disorders. First, there are personality traits that strongly correlate with eating disorders and drug use. Impulsivity is linked to both bulimia and binge eating disorder, as well as to substance abuse. There may also be an underlying predisposal to addiction, in which individuals who develop an addiction to one substance or behavior are more vulnerable to developing another. Females with a ruminative response style or with “the tendency to repetitively focus on symptoms of distress and possible causes and consequences of these symptoms without engaging in active problem solving,” have an increased risk of bulimia and substance abuse, as the behaviors may help avoid self-directed ruminations (Watts & Ellis, 1992; Conanson et al., 2006; Holderness et al., 1994; Nolen-Hoeksema, Stice, Wade, and Bohon, 2007).

Second, eating disorders and substance use may be forms of self-medication and coping mechanisms for women with depression, anxiety, guilt, or difficulty with family or peers. In some cases, the initial substance use or eating disorder may arise from these difficulties, while in others substance use may begin to escape the depression and anxiety brought about from an eating disorder. While substance use is more typically used as a form of self-medication, eating

disordered behaviors can provide a psychological release, despite their self-destructive nature (Watts & Ellis, 1992; Conanson et al., 2006; Holderness et al., 1994).

Third, social factors and family are thought to play a role. Family and peer group attitudes toward alcohol, drugs, food, and body weight directly impact substance abuse and eating disorders. Families of women with anorexia tend to be more dysfunctional than those without eating disorders, and many first-degree relatives of women with eating disorders have addiction, affective or eating disorders as well, possibly indicating a genetic basis for these problems (Watts & Ellis, 1992; Conanson et al., 2006; Holderness et al., 1994, Krahn, 1991).

The ATHENA (Athletes Targeting Healthy Exercise and Nutrition Alternatives) Program is designed to prevent both eating disorders and substance abuse, and is delivered to female high school athletes. The curriculum is led by coaches and student leaders, and delivered during normal team practices. The program seeks to address issues such as depression and societal pressures to be thin, and to increase self-esteem, and promote healthy norms. It also includes discussions of media messages for cigarettes and alcohol. Though short-term findings found ATHENA only to be helpful for decreasing disordered eating and use of diet pills and drugs, long-term findings (1-3 years after high school graduation) indicated that the beneficial behavioral outcomes increased over time. The effects on positive body image continued, and intervention participants had significantly less marijuana use, cigarette use, and alcohol use (Elliot, Goldberg, Moe, DeFrancesco, Durham, and McGinnis, et al., 2008). Unfortunately, the ATHENA program is fairly unique; more programs that address prevention of both eating disorders and substance use are needed (Kumpfer, Smith, and Summerhays, 2008).

Conclusions

This chapter has shown that prevention must take into account gender-specific needs in order to be effective. Though doing so can often be uncertain and difficult, it is sure to reap rewards and save resources for governments and families alike.

References

- Biglan, A., Ary, D. V., Smolkowski, K., Duncan, T., & Black, C. (2000).** A randomized controlled trial of a community intervention to prevent adolescent tobacco use. *Tobacco Control*, 9:24-32.
- Bränström, R., Sjöström, E., & Andréasson, S. (2007).** Individual, group, and community risk and protective factors for alcohol and drug use among Swedish adolescents. *European Journal of Public Health*, 18(1):12-18.
- Campbell, J. C. (2002).** Health consequences of intimate partner violence. *The Lancet*, 359(9314):1331-1336.
- Catalano, S. (2012).** Intimate partner violence: 1993-2010. Washington, DC: Bureau of Justice Statistics. Available at: <http://www.bjs.gov/content/pub/pdf/ipv9310.pdf>
- Conanson, A. H., Klomek, A. B., & Sher, L. (2006).** Recognizing alcohol and drug abuse in patients with eating disorders. *Quarterly Journal of Medicine*, 99:335-339.
- Cuijpers, P. (2003).** Three decades of drug prevention research. *Drugs: Education, Prevention, and Policy*, 10(1):7-20.
- Elliot, D. L., Goldberg, L., Moe, E. E., DeFrancesco, C. A., Durham, M. B., & McGinnis, W., et al. (2008).** Long-term outcomes of the ATHENA (athletes targeting healthy exercise and nutrition alternatives) program for female high school athletes. *Journal of Alcohol and Drug Education*, 52(2):73-92.
- European Monitoring Centre for Drugs and Drug Addiction (2006).** A gender perspective on drug use and responding to drug problems. Lisbon: European Union.
- Graham, J. W., Johnson, C. A., Hansen, W. B., Flay, B. R., & Gee, M. (1990).** Drug use prevention programs, gender, and ethnicity: Evaluation of three seventh-grade Project SMART cohorts. *Preventive Medicine*, 19(3):305-313.
- Griffin, K. W., Scheier, L. M., Botvin, G. J., & Diaz, T (2000).** Ethnic and gender differences in psychosocial risk, protection, and adolescent alcohol use. *Prevention Science*, 1(4):199-212.
- Harden, A., Oakley, A., & Oliver, S. (2001).** Peer-delivered health promotion for young people: A systematic review of different study designs. *Health Education Journal*, 60(4):339-353.
- Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992).** Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin*, 112(1):64-105.
- Holderness, C. G., Brooks-Gunn, J., & Warren, M. P. (1994).** Co-morbidity of eating disorders and substance abuse: Review of the literature. *International Journal of Eating Disorders*, 16(1):1-34.

Johnson, C. A., Pentz, M., Weber, M. D., Dwyer, J. H., Baer, N., & MacKinnon, D. P., et al. (1990). Relative effectiveness of comprehensive community programming for drug abuse prevention with high-risk and low-risk adolescents. *Journal of Consulting and Clinical Psychology*, 58(4):447-456.

Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2011). Monitoring the Future national survey results on drug use, 1975-2010: Volume I, Secondary school students. Ann Arbor: Institute for Social Research, The University of Michigan.

Kilpatrick, D. G., Acierno, R., Resnick, H. S., Saunders, B. E., & Best, C. L. (1997). A 2-year longitudinal analysis of the relationships between violent assault and substance use in women. *Journal of Consulting and Clinical Psychology*, 65(5):834-847.

Krahn, D. D. (1991). The relationship of eating disorders and substance abuse. *Journal of Substance Abuse*, 3:239-253.

Kulis, S., Yabiku, S. T., Marsiglia, F. F., Nieri, T., & Crossman, A. (2007). Differences by gender, ethnicity, and acculturation in the efficacy of the Keepin' it REAL model prevention program. *Journal of Drug Education*, 37(2):123-144.

Kumpfer, K. L., Smith, P., & Summerhays, J. F. (2008). A wakeup call to the prevention field: Are prevention programs for substance use effective for girls? *Substance Use and Misuse*, 43:978-1001.

Longshore, D., Ellickson, P. L., McCaffrey, D. F., & St. Clair, P. A. (2007). School-based drug prevention among at-risk adolescents: Effects of ALERT plus. *Health Education and Behavior*, 34:651-668.

Midford, R. (2009). Drug prevention programmes for young people: Where have we been and where should we be going? *Addiction*, 105:1688-1695.

Miller, T., & Hendrie, D. (2008). Substance abuse prevention dollars and cents: A cost-benefit analysis, DHHS Pub. No. (SMA) 07-4298. Rockville, MD: Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration.

Nolen-Hoeksema, S., Stice, E., Wade, E., & Bohon, C. (2007). Reciprocal relations between rumination and bulimic, substance abuse, and depressive symptoms in female adolescents. *Journal of Abnormal Psychology*, 116(1):198-207.

Norman, E. (1997). New Directions: Looking at psychological dimensions in resiliency enhancement. *Drug-free youth*, 73-93.

O'Neil, A. L. (2011). Gender Equality and the Empowerment of Women in the UN Millennium Development Goals. Presentation given at the Drug Abuse Warning Network Conference, March 2-4 2011, Rome.

Palinkas, L. A., Atkins, C. J., Miller, C., & Ferreira, D. (1996). Social skills training for drug prevention in high-risk female adolescents. *Preventive Medicine*, 25(6):692-701.

Pentz, M. A. (2000). Preventing drug abuse through the community: Multicomponent programs make the difference. Putting research to work for the community (NIDA Publication No. 98-4293, 73-86.

Perry, C. L., Komro, K. A., Veblen-Mortenson, S., Bosma, L. M., Farbaksh, K., and Munson, K. A. et al. (2003). A randomized controlled trial of the middle and junior high school DARE and DARE plus programs. *Archives of Pediatrics and Adolescent Medicine*, 157(2):178-184.

Presidenza del Consiglio dei Ministri: Dipartimento Politiche Antidroga (2009). Project DAWN: Drugs and Alcohol Women Network: Summary. Application of the Fifth National Conference on Drug Policy: Trieste.

Rohrbach, L. A., & Milam, J. (2003). Gender issues in substance abuse prevention. In *Handbook of Drug Abuse Prevention: Theory, Science, and Practice*, Eds. Z. Sloboda and W. J. Bukoski. New York: Kluwer Academic, p. 351-363.

Schinke, S. P., Fang, L., & Cole, K. C. (2008). Substance use among early adolescent girls: Risk and protective factors. *Journal of Adolescent Health*, 43(2):191-194.

Schinke, S. P., Fang, L., & Cole, K. C. (2009). Computer-delivered, parent-involvement intervention to prevent substance use among adolescent girls. *Preventive Medicine*, 49:429-435.

Schinke, S., & Schwinn, T. (2005). Gender-specific computer-based intervention for preventing drug abuse among girls. *American Journal of Drug and Alcohol Abuse*, 31(4):609-616.

Svenson, G. (1998). European guidelines for youth AIDS peer education. Malmö: Department of Community Medicine, Lund University & European Commission.

Tolli, M. V. (2012). Effectiveness of peer education interventions for HIV prevention, adolescent pregnancy prevention and sexual health promotion for young people: A systematic review of European studies. *Health Education Research*, 27(5):904-913.

Turner, S., Norman, E., & Zunz, S. (1995). Enhancing resiliency in girls and boys: A case for gender specific adolescent prevention programming. *The Journal of Primary Prevention*, 16(1):25-38.

Turner, G., & Shepherd, J. (1999). A method in search of a theory: Peer education and health promotion. *Health Education Research*, 14(2):235-247.

Watts, W. D., & Ellis, A. M. (1992). Drug abuse and eating disorders: Prevention Implications. *Journal of Drug Education*, 22(3):223-240.

Weiss, F. L., & Nicholson, H. J. (1998). Friendly PEERSuasion against substance use: The girls incorporated model and evaluation. *Drugs and Society*, 12(1-2):7-22.

Wiederman, M. W., & Pryor, T. (1996). Substance use among women with eating disorders. *International Journal of Eating Disorders*, 20(2):163-168.

Gender differences in the effectiveness of the “Unplugged” prevention programme

Federica Vigna-Taglianti (1), Rosaria Galanti (2)

(1) Department of Clinical and Biological Sciences, University of Torino, Italy
Piedmont Centre for Drug Addiction Epidemiology, ASL TO3, Torino, Italy

(2) Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden, Centre for
Epidemiology and Community Medicine, Stockholm Health Care District

“Unplugged” is a social influence school-based curriculum for the prevention of tobacco, alcohol and drug use among adolescents, developed in the framework of the European Drug Abuse Prevention study in 2003. The study was funded by the European Community Public Health Program and involved more than 7,000 pupils of seven European countries between 2004 and 2007.

The effectiveness of the curriculum was evaluated through a cluster randomized trial taking place simultaneously in Austria, Belgium, Germany, Greece, Italy, Spain and Sweden. Schools were selected on the basis of inclusion criteria and of willingness to cooperate, and randomly assigned to either intervention or control group. An anonymous self-completed questionnaire investigating substance use and personal and social skills, together with other individual and family characteristics was administered at the beginning of the school year and approximately 3 months after the end of the program (Faggiano, 2007).

The intervention took place during the 2004-2005 school year and consisted in a 12-sessions standardized curriculum named “Unplugged”, based on Social Influence model (van der Kreeft 2009). The program was taught by class teachers using interactive techniques and aimed to develop and enhance interpersonal skills (group dynamics, assertiveness, problem solving, creative thinking and self control), and intrapersonal skills (verbal and nonverbal communication, expression of negative feelings, coping skills). Sessions on normative education and information on effects of smoking and drug use were also provided.

Effectiveness of the intervention

The effectiveness of the intervention was investigated performing multilevel regression models taking into account the hierarchical structure of the data, the differences in prevalence of substance use between countries, and the baseline differences between control and intervention pupils. The study sample at baseline consisted of 7079 students (3532 in control schools and 3547 in

intervention schools). The analytical sample for effectiveness analysis consisted of 6370 students who participated at both the baseline and the first follow-up survey. Program effects were found for daily cigarette smoking, sporadic and frequent episodes of drunkenness, and cannabis use (Faggiano 2008).

Gender stratified analysis showed gender differences in the effectiveness of the program. In this chapter, we provide a synthesis of gender differences in Unplugged effectiveness as published in a specific publication which we refer for further details on methods and results (Vigna-Taglianti 2009).

Characteristic*	Boys (n=3324)		Girls (n=3035)	
	n.	%	n.	%
Smoking cigarettes in past 30 days				
Any	403	12.7	465	15.9
6+ (frequent)	245	7.7	267	9.1
20+ cigarettes (daily)	160	5.1	167	5.7
Drunkenness episodes in past 30 days				
Any episode	211	6.5	162	5.4
3+ times (frequent)	62	1.9	46	1.5
Cannabis use in past 30 days				
Any use	137	4.2	72	2.4
3+ times (frequent)	81	2.5	38	1.3
Any illicit drug use* in past 30 days	186	5.6	124	4.1
Self-esteem				
High	2741	87.7	2422	83.2
Low	385	12.3	488	16.8
Positive expectations towards smoking				
Feel relaxed	861	27.1	790	26.8
Become more popular	674	21.2	574	19.4
Become more confident	613	19.2	468	15.8
Positive expectations towards alcohol				
Feel relaxed	680	21.2	548	18.6
Become more popular	552	17.3	433	14.7
Forget my troubles	1198	37.3	1186	40.0
Become more confident	598	18.7	507	17.1
Positive expectations towards cannabis				
Feel relaxed	1345	41.8	1108	37.5
Become more popular	689	21.4	552	18.6
Become more confident	691	21.5	581	19.6
* proportions calculated out of number of subjects answering the question ° included: cannabis, tranquillizers, LSD, amphetamines, crack, cocaine, heroin, ecstasy, GHB, methadone, hallucinogens, ketamine.				

Table 1. Behaviours and attitudes at baseline, by gender

Gender differences at baseline

The analysis of the baseline survey conducted on October 2004 showed some gender differences in use behaviours and attitudes (Table 1).

At enrolment, boys were more likely than girls to have used cannabis (4.2% vs 2.4%, $p<0.001$) and illicit drugs (5.6% vs 4.1%, $p=0.005$) at least once in the past 30 days, while girls had a higher prevalence of any cigarette smoking in the past 30 days (15.9% vs 12.7%, $p<0.001$). The proportion reporting recent episodes of drunkenness was slightly higher among males, but the difference was not statistically significant (6.5% vs 5.4%, $p=0.07$).

At baseline, a lower proportion of girls scored high on a positive self-esteem score (83.2% vs 87.7%, $p<0.001$). No appreciable gender differences were observed concerning positive expectations towards smoking, while boys endorsed more often than girls positive expectations towards alcohol (“feel relaxed”: 21.2% vs 18.5%, $p=0.008$, “become more popular”: 17.3% vs 14.7%, $p=0.005$) and cannabis (“feel relaxed”: 41.8% vs 37.5%, $p=0.001$, “become more popular”: 21.4% vs 18.6%, $p=0.006$).

Gender differences in the effectiveness of the program

A graphical representation of Unplugged effects on daily smoking, drunkenness episodes and cannabis use among boys and girls is provided in Figure 1, 2 and 3.

On the follow-up survey conducted three months after the completion of the experimental school curriculum, significant program effects were observed among boys both for daily smoking (32% reduction of frequent smokers, 51% of daily smokers), drunkenness episodes (36% reduction of any episodes), and cannabis use (38% reduction of any cannabis users, 40% of frequent users).

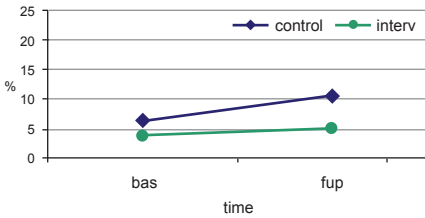
Among girls, there was an indication of decreased risk of sporadic and frequent drunkenness, but the estimates did not attain the statistical significance. As shown in the figures, no effect of the program on tobacco smoking and cannabis use was detected among girls, with almost equal prevalence of use among girls of intervention and control classes.

These gender differences were found in all countries, and were maintained after exclusion of current users at baseline.

Differences of transitions by stages of use

Gender differences were found also in the transition patterns between different stages of substance use. Among boys, the proportion of pupils progressing to more advanced stages of smoking was lower among those who received the experimental curriculum compared to controls, while the proportion regressing was higher. Among girls a similar but less pronounced pattern was observed. Daily smokers were not affected by the intervention in either gender, but among girls

Boys



Girls

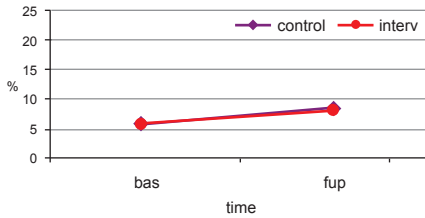
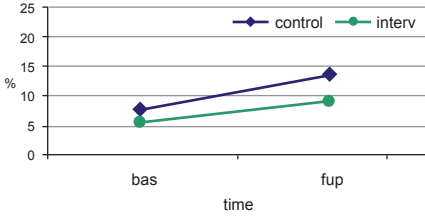


Figure 1. Effect of Unplugged on daily smoking among boys and girls

Boys



Girls

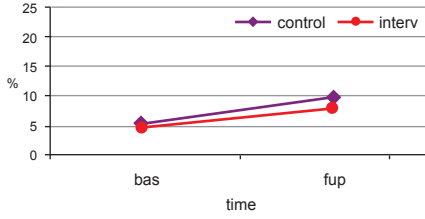
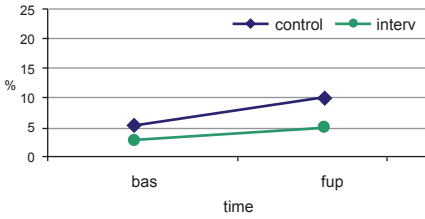


Figure 2. Effect of Unplugged on drunkenness episodes among boys and girls

Boys



Girls

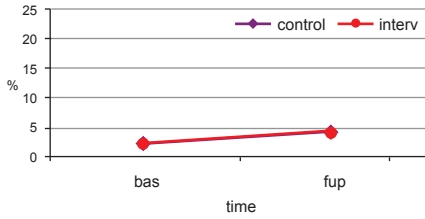


Figure 3. Effect of Unplugged on cannabis use among boys and girls

a higher proportion of the control group regressed from daily use, compared to the intervention group. Similar patterns emerged in the use of other substances: delayed progression and enhanced regression were higher in the intervention group among boys, while no, minimal or reverse differences were observed among girls.

Influence of self-esteem

When the gender-specific estimates of program effect were analysed in separate strata of the self-esteem indicator, some differences emerged although based on not statistically significant estimates. Among boys, level of self-esteem did not substantially affect the curriculum effect. On the contrary, among girls, the program was rather associated to a tendency towards unfavourable effect in the low self-esteem group.

Influence of age

When the gender-specific estimates of program effect were analysed by age, an indication of risk reduction for girls exposed to the experimental curriculum compared to controls was found for all the indicators of smoking and drunkenness, among girls in the youngest age group (11-12 years at baseline).

Among boys, program effects were similar in both age groups for drunkenness, cannabis and illicit drugs use, but for smoking that was more affected by the program in the oldest age group (13-18 years at baseline).

Summary and conclusions

In a multi-national sample of European students we found pronounced gender differences in substance use behaviours and in the effectiveness of a social influence school-based prevention curriculum. These differences indicated a higher use of cannabis and illicit drugs among boys and a higher prevalence of cigarette smoking among girls. A greater preventive potential of the curriculum was found among boys.

Differences in prevalence of tobacco, alcohol and substance use among adolescent boys and girls are well documented (EMCDDA 2006, Degenhardt 2008). Differences in the effect of prevention programs among boys and girls have been recently underlined, but the direction of the differences is still unclear. Our finding was somewhat unexpected, since programs based on the enhancement of social skills are generally considered more effective, if anything, among girls than among boys (Blake 2001). However, when only school-based social influence interventions are examined, the evidence is actually rather mixed, with results in favour of boys in the Oslo Youth Study (Klepp 1993), North Karelia Youth Programme (Vartiainen 1998), and Project Towards No Drug Abuse (Sussman 2003), and in favour of girls in Project SMART (Graham 1990) and ALERT Plus (Longshore 2007).

Some explanations for the gender differences observed in our study can be hypothesized. First, the developmental stage in terms of general life skills and coping mechanisms may differ between genders, given an attained age (Amaro 2001, Hess 1999), with acquisition of skills and competences still being susceptible to modifications among boys, less so among girls. In fact, girls must

cope with puberty-related social and emotional changes at an earlier age than boys (Hess 1999). Consistently, we found indications that the program may have been effective among very young girls (11-12 years old), while the effectiveness among boys did not differ by the age-range of the study. Although caution is needed when interpreting these results, due to lack of statistical significance, previous studies support the conclusion that most programs based on skill enhancement achieve better results among girls when administered at young ages (Blake 2001, Kumpfer 2008). Moreover, a replication of the EU-Dap trial in five East European countries using the same curriculum, and taking place in 2009-2010 school year among 11-13 years old pupils, did not find gender differences (unpublished results), strengthening the hypothesis of no difference in effectiveness at an earlier age.

A second possible explanation is that boys and girls may differ in moderators of programs' effects such as personality characteristics. In our study, self-esteem modified the program's effectiveness in the two genders, with girls with low self-esteem having the least benefit from the program. A differential gender effect linked to self-esteem is not surprising. In fact, there is some evidence that lack of self-esteem can be a stronger risk factor for drug use among girls than among boys (Crump 1997, Amaro 2001). Theoretical models suggest that girls are more influenced by family protective factors, while boys are more influenced by school or community environment (Sale 2003). Among girls, self-esteem is strongly dependent on a positive relationship with parents (Kumpfer 2008).

The emphasis on self-esteem is justified by the fact that this is not a key element of social influence programs, that focus on normative beliefs and on social and personal skills. It is therefore possible that the Unplugged curriculum, heavily relying on the development of social skills, was not able to deal with lack of intra-personal traits, such as self-esteem.

In conclusion, our findings suggest that school curricula based on comprehensive social influence against substance misuse may perform differently among girls and boys, possibly due to developmental and personality factors. When developing new prevention programs, gender-specific components should always be considered in order to reduce disparity of effects between boys and girls. Moreover, results of gender stratified analysis should be taken into account when applying prevention interventions on a large scale, e.g. anticipating their delivery in early grades of the compulsory school.

Finally, given the inconsistent results observed in the literature, gender differences become an important issue in all intervention studies. In fact, if a sensitive subgroup exists, this is not only important to guide the program's application, but it may also cast light on the mechanisms of the program effect.

References

Amaro H, Blake SM, Schwartz PM, Flinchbaugh LJ. Developing theory-based substance abuse prevention programs for young adolescent girls. *J Early Adolesc* 2001; 21(3): 256-293.

Blake SM, Amaro H, Schwartz PM, Flinchbaugh LJ. A review of substance abuse prevention interventions for young adolescent girls. *J Early Adolescence* 2001; 21: 294-324.

Crump RL, Lillie-Blanton M, Anthony JC. The influence of self-esteem on smoking among African-American school children. *J Drug Education* 1997; 27: 277-291.

Degenhardt L, Chiu WT, Sampson N, Kessler RC, Anthony JC, Angermeyer M, Bruffaerts R, de Girolamo G, Gureje O, Huang Y, Karam A, Kostyuchenko S, Lepine JP, Mora ME, Neumark Y, Ormel JH, Pinto-Meza A, Posada-Villa J, Stein DJ, Takeshima T, Wells JE. Toward a Global View of Alcohol, Tobacco, Cannabis, and Cocaine Use: Findings from the WHO World Mental Health Surveys. *PLoS Med* 2008; 5(7): e141

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). A gender perspective on drug use and responding to drug problems. Lisbon, November 2006

Faggiano F, Richardson C, Bohrn K, Galanti MR, and the EU-Dap Study Group. A cluster randomized controlled trial of school-based prevention of tobacco, alcohol and drug use: the EU-Dap design and study population. *Prev Med* 2007; 44(2): 170-173.

Faggiano F, Galanti MR, Bohrn K, Burkhardt G, Vigna-Taglianti F, Cuomo L, Fabiani L, Panella M, Perez T, Siliquini R, van der Kreeft P, Vasara M, Wiborg G, and the EU-Dap Study Group. The effectiveness of a school-based substance abuse prevention program: EU-Dap Cluster Randomised Controlled Trial. *Prev Med* 2008; 47(5): 537-43.

Graham JW, Johnson CA, Hansen WB, Flay BR, Gee M. Drug use prevention programs, gender, and ethnicity: evaluation of three seventh-grade Project SMART cohorts. *Prev Med* 1990; 19: 305-313.

Hess RS, Richards ML. Developmental and gender influences on coping: implications for skills training. *Psychol Schools* 1999; 36(2): 149-157

Klepp KI, Tell GS, Vellar OD. Ten-year follow-up of the Oslo Youth Study Smoking Prevention Program. *Prev Med* 1993; 22(4): 453-462.

Kumpfer KL, Smith P, Summerhays JF. A wakeup call to the prevention field: are prevention programs for substance use effective for girls? *Subst Use Misuse* 2008; 43(8): 978-1001.

Longshore D, Ellickson PL, McCaffrey DF, St. Clair PA. School-based drug prevention among at-risk adolescents: effects of ALERT Plus. *Health Educ Behav* 2007; 34(4): 651-68.

Sale E, Sambrano S, Springer FJ, Turner C. Risk, protection, and substance use in adolescents: a multi-site model. *J Drug Education* 2003; 33(1): 91-105.

Sussman S, Sun P, McCuller WJ, Dent CW. Project Towards No Drug Abuse: two-year outcomes of a trial that compares health educator delivery to self-instruction. *Prev Med* 2003; 37: 155-162.

Van der Kreeft P, Wiborg G, Galanti MR, Siliquini R, Bohrn K, Scatigna M, Lindahl AM, Melero JC, Vassara M, Faggiano F, and the EU-DAP Study Group. "Unplugged": a new European school programme against substance abuse. *Drugs: Education, Prevention and Policy* 2009; 16(2): 167-181

Vartiainen E, Paavola M, McAlister A, Puska P. Fifteen-year follow-up of smoking prevention effects in the North Karelia Youth Project. *Am J Public Health* 1998; 88(1): 81-85.

Vigna-Taglianti F, Vadrucci S, Faggiano F, Burkhart G, Siliquini R, Galanti MR and the EU-Dap Study Group. Is universal prevention against youths' substance misuse really universal? Gender specific effects in the EU-Dap school-based prevention trial. *J Epidemiol Community Health* 2009; 63(9): 722-8.

Differences in the risk factors for illicit drug use among young females and males aged 15-19 years

Giovanni Serpelloni (1), Bruno Genetti (2), Alessandra Andreotti (2), Milena Sperotto (2), Iulia Alexandra Carpignano (3), Monica Zermiani (4)

(1) Head, Department for Anti-drug Policy, Presidency of the Council of Ministers, Italy

(2) Explora, Ricerca e Analisi Statistica, Padova, Italy

(3) CUEIM, Consorzio Universitario di Economia Industriale e Manageriale, Italy

(4) Department for Drug Dependence, Regione Veneto, Azienda ULSS 20 Verona, Italy

Introduction

The consumption of psychotropic substances, legal or illegal, is a wide social-health problem, which can considerably affect the lives of people. As reported by many scholars, the use of these substances may affect many aspects of health, for example the growth of children and adolescents, the general health status and the life quality, and may also have important socio-economic consequences [1].

The consumption of illegal drugs is a widespread phenomenon especially in the youth age group and is often associated with other dangerous behaviour (e.g. alcohol consumption, cigarette smoking, dangerous driving, antisocial behaviours, etc.), with a consequent increase in the likelihood of causing harm to the health [2]. In Europe, the monitoring of the consumption of psychotropic substances constitutes the starting point for the planning of further intervention studies and the completion of the cognitive profile of young populations, which are necessary for the definition and orientation of new and effective counter-actions [3].

In Italy the population-based study on student drug use started in 2000, and was carried out on an annual basis in all the classes of secondary schools. The Italian study presents some peculiarities, largely attributable to two aspects: the annual repetition of the study, able to meet the information needs of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) [4], and the extent of the study to the entire student population in secondary school (15-19 years old), unlike the European survey [5], which is limited to the age group between 15 and 16 years old.

The overall purpose of the drug consumption survey in the student population between 15 and 19, is to monitor the phenomenon over time, both in quantitative terms (prevalence of drugs consumption) and in qualitative terms (characteristics of psychotropic substances users). The adoption of standard protocols allowed the pursuit of a second goal, no less important than the first, which concerns the comparison of the data on the consumption of tobacco, alcohol

and other illicit substances among the school population at the national level, with the results obtained in other European countries adopting the same standard protocols [6].

The large sample size of the students interviewed, for each age, allowed in-depth analyses according also to the gender. Several studies have shown, in fact, that there are a lot of differences between males and females concerning drug use [2, 6-18]. As shown by many studies, this phenomenon involves mainly males, probably because of the greater susceptibility to get involved with and to try new experiences, but also generally highlighting that teenage drug use, for both males and females, increases with age [6, 11-12, 14, 18-20]. Many studies show that young people have an understandable preference for the use of cannabis, which is the most widely used substance of all, especially among males [6, 11, 13, 16, 18]. On the other hand, young female students prefer the consumption of tranquilizers or sedatives without medical prescription, with an estimated average consumption, at least once in their lifetime, equal to 8%, at the European level in 2011 [6, 11]. In general, the people with whom students take drugs for the first time seem to be friends in the case of the male gender, and partners in the case of the female gender [7-9].

A study conducted among Spanish and Portuguese adolescents showed that a satisfactory relationship with family members, friends, classmates and teachers may have protective effects against substance consumption by adolescents [14]; a finding that was also confirmed by a study conducted on a sample of 1,090 students in Milan [18]. The main risk factors for drug abuse seem to be, instead, friends who take illegal drugs [14,15], and alcohol abuse [17].

In this respect, it becomes essential for the effectiveness of prevention and intervention strategies, which currently tend to ignore gender differences, to learn more about the different motivations and risk factors that drive the adolescents, male and female, towards the use of psychotropic substances. Based on this aim and on the data collected through the 2012 Italian survey on drug abuse among the student population [3], the behaviour and the characteristics of students aged 15 to 19 have been investigated, identifying all the possible risk factors for the consumption of illicit substances, individually for males and females.

Methods

Study design

A two-stage probabilistic sampling method was implemented, according to which the first stage units are represented by the high schools and the second stage units by classes of students (all ages); for each class the students were selected according to a cluster sampling. The adopted sampling structure allows prevalence estimates for single ages, genders and single geographical areas (north-west, north-east, centre, south/islands). The selection of the first stage units was carried out in a proportionate way according to the region and the type of the institute (secondary school or high school formally specializing in education,

polytechnic institute, vocational institute, arts academy), assuming that the morphological characteristics of the different geographical areas and the different types of school may affect the prevalence of substance use [3].

This sampling procedure allows, on the one hand, to obtain a sample structure that faithfully reproduces the real student population under study, and on the other hand, to substantially improve the efficiency of the sampling method [21]. In this case, in fact, since the groupings identified in the population are characterized by a lower variability than that of the total population, the precision of the estimates will be higher. The calculation of the estimates precision for each single stratum was obtained, like in the case of the total sample, using the sample size of the considered stratum [3].

Data collection

The instrument applied in this study is based on the international protocol adopted by the ESPAD (European School Survey Project on Alcohol and Other Drugs) study, which in 2011 involved 35 European countries [5]. The questionnaire, administered during the first semester of 2012, is divided into several sections, each of which aims to collect information on different aspects, such as habits, behaviours, use of psychotropic substances and family characteristics of the respondents. The questionnaire was completed online through a specific web site, after assigning anonymous usernames and passwords to each student. This web site also includes more detailed information on the organization and the implementation of the survey.

Data analysis

In order to investigate the characteristics of young people aged between 15 and 19 years, some descriptive statistical analyses have been conducted regarding the habits and the behaviours, the interpersonal relationships with their family and friends, the self-esteem and the psychotropic substances consumption (i.e. cigarette smoking, alcohol and illegal drugs use). In order to assess the presence of statistically significant differences between genders, the Student T tests were used to analyze continuous variables and the Pearson Chi-Square test (χ^2) was used to analyze categorical variables. If they were not applicable, analogous non-parametric tests were used (Wilcoxon's rank-sum test or Fisher's exact test).

The estimation of the risk factors of psychotropic substances consumption in males and females was assessed using a logistic regression model. The covariates included in this model, were selected using a univariate analysis using the Pearson Chi-Square test (χ^2). Through the logistic regression model, the estimate of the Odds Ratio (OR) was possible, which expresses how many times the presence of the risk factor examined, increases the likelihood for a subject to be a drug user.

All the statistical analyses were implemented using the SPSS statistical software [22], release 18.0. A p -value <0.05 was used to establish statistical significance.

Results

Characteristics of the sample

The survey involved 35,980 students attending 490 schools throughout the national territory, evenly distributed by age (about 20% for each age investigated) and gender (50.0% females and 50.0% males). 39.2% of the students interviewed attend schools of the southern and insular part of Italy, 27.4% go to schools in the Northwest, 16.5% in the schools of the Northeast, while 16.8% are students of the schools of the central Italy (Table 1). There have been no significant differences between the distributions by geographical area and gender.

Variables	Total N (%)	Male N (%)	Female N (%)
Respondents	35,980 (100.0%)	18,001 (50.0%)	17,979 (50.0%)
Age			
15 years	6,703 (18.6%)	3,230 (48.2%)	3,473 (51.8%)
16 years	7,412 (20.6%)	3,687 (49.7%)	3,725 (50.3%)
17 years	7,713 (21.4%)	3,924 (50.9%)	3,789 (49.1%)
18 years	7,321 (20.3%)	3,691 (50.4%)	3,630 (49.6%)
19 years	6,831 (19.0%)	3,469 (50.8%)	3,362 (49.2%)
Type of institute			
Secondary school or high school formerly specializing in education	12,852 (35.7%)	5,152 (40.1%)	7,700 (59.9%)
Polytechnic institute	12,013 (33.4%)	7,581 (63.1%)	4,432 (36.9%)
Vocational institute	7,789 (21.6%)	4,121 (52.9%)	3,668 (47.1%)
Arts institute	3,326 (9.2%)	1,147 (34.5%)	2,179 (65.5%)
Geographical area			
North-Western Italy	9,860 (27.4%)	4,954 (50.2%)	4,906 (49.8%)
North-Eastern Italy	5,954 (16.5%)	3,013 (50.6%)	2,941 (49.4%)
Central Italy	6,048 (16.8%)	3,032 (50.1%)	3,016 (49.9%)
Southern Italy/Islands	14,118 (39.2%)	7,002 (49.6%)	7,116 (50.4%)

Table 1. Distribution of the socio-demographic characteristics of the students, by gender

Regarding the habits and the behaviours of teenagers interviewed it was found that, on weekly basis, females between 15 and 19 years read more than males (9.8% vs. 20.4%, p -value<0.001), play with the computer for fun less than males (68.0% vs. 38.1%, p -value<0.001), play with the slot machines or video poker less than males (5.1% vs. 1.7%, p -value<0.001), practice sport less than males (64.0% vs. 41.0%, p -value<0.001) and go out in the evening during the week less frequently than males (39.2% vs. 30.0%, p -value<0.001) (Table 2). Moreover, a lower percentage of females than males asserted to have missed two or more days of school due to lack of will (22.0% vs. 19.9%, p -value<0.001).

Variables	Total N (%)	Male N (%)	Female N (%)	P-value
Activities carried out every day or several times a week (% on the total respondents)				
Reading books for pleasure (not scholastic)	5,436 (15.1%)	1,770 (9.8%)	3,666 (20.4%)	<0.001
Going out at night (disco, bar, parties, etc.)	12,440 (34.6%)	7,049 (39.2%)	5,391 (30.0%)	<0.001
Playing on the computer and videogames	19,083 (53.0%)	12,240 (68.0%)	6,843 (38.1%)	<0.001
Practice sport or attending the swimming pool, the gym, etc.	18,900 (52.5%)	11,522 (64.0%)	7,378 (41.0%)	<0.001
Playing with the slot machines (video poker, etc.)	1,222 (3.4%)	919 (5.1%)	303 (1.7%)	<0.001
Unsatisfactory interpersonal relationships (% on the total respondents)				
With mother	2,125 (6.0%)	888 (5.1%)	1,237 (7.1%)	<0.001
With father	3,168 (9.0%)	1,245 (7.3%)	1,923 (11.3%)	<0.001
With brothers/sisters	1,702 (4.8%)	784 (5.4%)	918 (6.2%)	0.002
With classmates	2,593 (7.3%)	1,085 (6.2%)	1,508 (8.6%)	<0.001
With friends	1,348 (3.8%)	651 (3.7%)	697 (4.0%)	0.237
Losing two or more days of school for lack of will				
	7,539 (21.0%)	3,957 (22.0%)	3,582 (19.9%)	<0.001
Feelings				
Dissatisfaction with themselves	4,608 (13.1%)	1,479 (8.4%)	3,129 (17.8%)	<0.001
Believe to be useless	15,931 (45.4%)	6,950 (39.7%)	8,981 (51.1%)	<0.001
Negative attitude towards themselves	5,575 (15.9%)	1,870 (10.7%)	3,705 (21.1%)	<0.001
Feel depressed in the last 7 days	5,003 (14.3%)	1,574 (9.0%)	3,429 (19.5%)	<0.001
Feel sad in the last 7 days	8,700 (24.8%)	2,771 (15.8%)	5,929 (33.7%)	<0.001
Dangerous behaviours				
Be involved in fights (at school, at home, etc.)	2,256 (6.5%)	1,747 (10.1%)	509 (2.9%)	<0.001
Caused damage purposely to school or at public spaces (parks, roads, etc.)	1,331 (3.8%)	1,075 (6.2%)	256 (1.5%)	<0.001

Table 2. Distribution of the habits, the behaviours and the interpersonal relationships of the students, by gender

Concerning the interpersonal relationships, it was found that females are more dissatisfied with the relationship with their parents than males, both with their mother (5.1% vs. 7.1%, p-value<0.001) and with their father (7.3% vs. 11.3%, p-value<0.001); moreover females are more dissatisfied than males with their relationships with classmates (6.2% vs. 8.6%, p-value<0.001) (Table 2). Confirmation of this result can be found in a study of 1,589 Portuguese adolescents and 4,191 Spanish students: females have more conflicts in relationships with peers, are more vulnerable to rejection, and may be more sensitive to the influences of their peers than males [14]. An almost equivalent level of dissatisfaction, however, is perceived in the relationships with friends, even if not statistically significant (3.7% for males and 4.0% for females, p-value=0.237).

Moreover, regarding the feelings that students have about themselves (Table 2), females are characterized by a less positive idea about themselves than

males: 17.8% of the females, in fact, assert to not be satisfied with themselves against 8.4% of males (p-value<0.001). The majority of females (51.1%) believes to be useless, unlike the 39.7% of males (p-value<0.001); furthermore 21.1% of females, stated to have a negative attitude towards themselves against 10.7% of males (p-value<0.001). In addition, with reference to the last 7 days, females affirm to feel more depressed and sad compared to males (9.0% males vs. 19.5% females and 15.8% males vs. 33.7% females, respectively - p-values<0.001).

On the contrary, males adolescents seem to be more involved in dangerous behaviours than female peers: 10.1% of males are involved in fights at school or at home against 2.9% of females (p-value<0.001), and males cause purposely damage at school or at public places (parks, roads, etc.) more than females (6.2% vs. 1.5%, p-value<0.001).

Characteristics of legal and illegal psychotropic substance users

37.9% of the students interviewed stated they have smoked in the last 30 days, this phenomenon involves more males than females (38.8% vs. 37.0%, p-value<0.001); moreover, females smoke quantitatively fewer cigarettes than

Variables	Total N (%)	Male N (%)	Female N (%)	P-value
Tobacco consumption in the last 30 days (prevalence % - LMP)	13,625 (37.9%)	6,977 (38.8%)	6,648 (37.0%)	<0.001
15 years	1,576 (23.5%)	728 (22.5%)	848 (24.4%)	0.070
16 years	2,502 (33.8%)	1,195 (32.4%)	1,307 (35.1%)	0.015
17 years	3,118 (40.4%)	1,615 (41.2%)	1,503 (39.7%)	0.183
18 years	3,292 (45.0%)	1,736 (47.0%)	1,556 (42.9%)	<0.001
19 years	3,137 (45.9%)	1,703 (49.1%)	1,434 (42.7%)	<0.001
Frequency of tobacco consumption in the last 30 days (% on the total tobacco users - LMP)				
Less than 1 cigarette per day	4,861 (35.7%)	2,376 (34.0%)	2,485 (37.4%)	<0.001
1-5 cigarettes per day	3,631 (26.6%)	1,736 (24.9%)	1,895 (28.5%)	<0.001
More than 6 cigarettes per day	5,133 (37.7%)	2,865 (41.1%)	2,268 (34.1%)	<0.001
Alcohol consumption in the last 30 days (prevalence % - LMP)	21,262 (59.1%)	11,727 (65.1%)	9,535 (53.0%)	<0.001
15 years	2,568 (38.3%)	1,419 (43.9%)	1,149 (33.1%)	<0.001
16 years	3,907 (52.7%)	2,121 (57.5%)	1,786 (47.9%)	<0.001
17 years	4,948 (64.2%)	2,739 (69.8%)	2,209 (58.3%)	<0.001
18 years	5,075 (69.3%)	2,799 (75.8%)	2,276 (62.7%)	<0.001
19 years	4,764 (69.7%)	2,649 (76.4%)	2,115 (62.9%)	<0.001
Frequency of alcohol consumption in the last 30 days (% on the total alcohol users - LMP)				
Up to 9 times	18,376 (86.4%)	9,652 (82.3%)	8,724 (91.5%)	<0.001
More than 10 times	2,886 (13.6%)	2,075 (17.7%)	811 (8.5%)	<0.001

Table 3. Tobacco and alcohol consumption, by gender

males (Table 3). In fact, over the past 30 days, 41.1% of males claim to have smoked more than six cigarettes per day, while this quantity is consumed by 34.1% of females (p-value<0.001).

Comparing the consumption of cigarettes by age, it can be noticed that the 16 year old females smoke more than peer males (32.4% vs. 35.1%, p-value=0.015), while, among students aged 18 and 19 years, males smoke the highest number of cigarettes (47.0% males vs. 42.9% female, p-value<0.001 and 49.1% males vs. 42.7% females, p-value<0.001, respectively).

Concerning the consumption of alcoholic beverages, a greater number of males claim to have been drunk and to drink more frequently than females; this behaviour is highlighted with statistically significant differences (p-value<0.001), also for age. The same trend was observed in a study conducted on a sample of 1,090 students in Milan (Italy), in which there were statistically significant differences between gender and between the different age groups, with respect to the alcohol consumption (p-value=0.003 and p-value<0.0001, respectively) [18].

Variables	Total N (%)	Male N (%)	Female N (%)	P-value
At least one illegal substance users in the last 12 months (prevalence %)	7,273 (20.2%)	4,357 (24.2%)	2,916 (16.2%)	<0.001
Age				
15 years	551 (8.2%)	297 (9.2%)	254 (7.3%)	0.005
16 years	1,189 (16.0%)	703 (19.1%)	486 (13.0%)	<0.001
17 years	1,684 (21.8%)	1,007 (25.7%)	677 (17.9%)	<0.001
18 years	1,940 (26.5%)	1,180 (32.0%)	760 (20.9%)	<0.001
19 years	1,909 (27.9%)	1,170 (33.7%)	739 (22.0%)	<0.001
Substances				
Tranquilizers or sedatives (without medical prescription)	630 (1.8%)	201 (1.1%)	429 (2.4%)	<0.001
Amphetamines	209 (0.6%)	133 (0.7%)	76 (0.4%)	<0.001
Ecstasy	296 (0.8%)	189 (1.0%)	107 (0.6%)	<0.001
Inhalants	444 (1.2%)	240 (1.3%)	204 (1.1%)	0.088
Cannabis (Marijuana or Hashish)	6,888 (19.1%)	4,158 (23.1%)	2,730 (15.2%)	<0.001
LSD/hallucinogen	289 (0.8%)	198 (1.1%)	91 (0.5%)	<0.001
Crack	235 (0.7%)	154 (0.9%)	81 (0.5%)	<0.001
Cocaine	553 (1.5%)	372 (2.1%)	181 (1.0%)	<0.001
Other hallucinogens (hallucinogenic mushrooms, ketamine, mescaline, synthetic)	471 (1.3%)	308 (1.7%)	163 (0.9%)	<0.001
Heroin	114 (0.3%)	72 (0.4%)	42 (0.2%)	0.005
GHB (liquid ecstasy)	67 (0.2%)	44 (0.2%)	23 (0.1%)	0,010
Anabolic steroids	96 (0.3%)	82 (0.5%)	14 (0.1%)	<0.001
Alcohol with pills	354 (1.0%)	170 (0.9%)	184 (1.0%)	0.448
Others	231 (0.6%)	148 (0.8%)	83 (0.5%)	<0.001
People with whom the first use of substances is experienced				
Alone	454 (5.2%)	291 (5.7%)	163 (4.5%)	0.021
Friends	6,939 (79.6%)	4,174 (81.3%)	2,765 (77.2%)	<0.001
Classmates	855 (9.8%)	510 (9.9%)	345 (9.6%)	0.636
Partner	383 (4.4%)	99 (1.9%)	284 (7.9%)	<0.001
Acquaintances	307 (3.5%)	197 (3.8%)	110 (3.1%)	0.056

Table 4. Illegal substances consumption in the last 12 months and people with whom the first use of substances is experienced, by gender

Looking at the alcohol consumption in the last month, the difference between males and females is significant: 17.7% of males stated to have drunk more than 10 times compared to 8.5% of females (p -value <0.001) (Table 3).

The consumption of at least one illegal substance in the last 12 months is reported by approximately 20% of all students interviewed, with a higher prevalence of males than females (24.2% vs. 16.2%, p -value <0.001). The same trend is observed within each age (p -value ≤ 0.005), where it can be noticed that the drug consumption is higher for males than females. In general, for all the analysed illegal drugs, greater prevalence of consumption in males than in females is observed (Table 4).

The illicit drug mostly taken by the students interviewed is cannabis (marijuana or hashish): 23.1% of males asserted they have tried it at least once in the last 12 months against 15.2% of females (p -value <0.001). At the same time, females between 15 and 19 years seem less interested in the use of cocaine than males: 2.1% of the males shows to have taken cocaine at least once in the last year compared with 1.0% of female students (p -value <0.001).

The consumption of tranquilizers or sedatives characterizes especially the younger female students (Table 4): the use of this drug without a medical prescription, over the last 12 months, is stated by 2.4% of females compared to 1.1% of males (p -value <0.001).

With regard to the people with whom the first use of illegal substances occurs, friends are of primary importance, both for males and females (81.3% vs. 77.2%, p -value <0.001). Unlike males, females stated that the partner plays a crucial role in relation to the first use of psychotropic drugs (1.9% vs. 7.9%, p -value <0.001). For males, on the contrary, there is the greater tendency to experiment an illegal substance for the first time alone (5.7% vs. 4.5%, p -value=0.021) (Table 4).

The poly-drug use of psychoactive substances, legal and illegal, is becoming the most popular and prevalent style of consumption among students and young people. In the case of adolescents, some studies have shown that around this way of drug consumption an out-and-out “culture” has been developed, in which substances are taken in a particular order, quantity and context, depending on the effects sought by the drug users [20]. Concerning students who asserted to have taken more than one substance in the last 30 days (of which at least one illegal), it can be noticed that the most common combination of substances is alcohol, tobacco and cannabis: 64.0% of males stated to have used these substances, while this percentage drops to 62.6% for females, without a statistically significant difference (p -value=0.315) (Table 5). The combination of more than three substances was the second most frequent modality of poly-drug users: 15.4% of males and 13.9% of females claimed to have consumed three or more drugs in the 30 days preceding the interview, also in this case without a statistically significant difference (p -value=0.146).

Moreover, analyzing the poly-drug phenomenon with regard to the age of the students, it can be observed that, for each age, this phenomenon involves mainly males than females (p -value <0.001 for young people aged 16 and over), with an increasing trend (Table 5)

Variables	Total N (%)	Male N (%)	Female N (%)	P-value
At least one illegal substance users in the last 12 months (prevalence %)	5,010 (13.9%)	3,019 (16.8%)	1,991 (11.1%)	<0.001
Age				
15 years	383 (5.7%)	195 (6.0%)	188 (5.4%)	0.271
16 years	840 (11.3%)	505 (13.7%)	335 (9.0%)	<0.001
17 years	1,183 (15.3%)	705 (18.0%)	478 (12.6%)	<0.001
18 years	1,297 (17.7%)	798 (21.6%)	499 (13.7%)	<0.001
19 years	1,307 (19.1%)	816 (23.5%)	491 (14.6%)	<0.001
Mixture of substances				
Alcohol plus Cannabis	359 (7.2%)	259 (8.6%)	100 (5.0%)	<0.001
Tobacco plus Cannabis	321 (6.4%)	176 (5.8%)	145 (7.3%)	0.040
Consumption of 2 substances – other	152 (3.0%)	69 (2.3%)	83 (4.2%)	<0.001
Alcohol plus Tobacco plus Cannabis	3,180 (63.5%)	1,933 (64.0%)	1,247 (62.6%)	0.315
Consumption of 3 substances – other	256 (5.1%)	117 (3.9%)	139 (7.0%)	<0.001
More than 3 substances	742 (14.8%)	465 (15.4%)	277 (13.9%)	0.146

Table 5. Poly-drug users, legal and illegal substances, in the last 30 days, by gender

Risk factor analysis

For both genders, in order to estimate the risk factors of drug abuse, statistically associated with the consumption of illegal substances, the covariates selected for the logistic regression model were the following:

- the number of days in which young people go out in the night (disco, bars, parties, etc.);
- the number of days in which teenagers play with slot machines or video poker and similar;
- school days lost due to lack of will;
- the number of times, considering the lifetime period, the students are drunk;
- the presence of friends/siblings who use substances;
- the satisfaction with the relationship with parents;
- the lack of precise rules regarding the behaviour outside their own home;
- the parents knowledge about the places where their children spent Saturday night;
- the amount of money spent without parental supervision;
- alcohol consumption during the 30 days preceding the interview.

On the basis of the covariates selected for the multivariate analysis, two logistic regression models by gender were implemented, and the results are described in Table 6.

The most important risk factor of drug abuse seems to be the presence of friends/siblings who use illicit drugs: male drug consumers have a 10.7-fold increase in the risk of psychotropic drugs consumption than those who did not know people who take drugs. Also for the females this risk is high and it is equal to 12.0 (Odds Ratio). In addition, the experience of drunkenness at least once in the students' lifetime is a significant risk factor, more for females than males (OR=5.7 vs. OR=4.6, respectively), as well as the consumption of alcoholic

Variables			Total N (%)		Male N (%)		Female N (%)	P-value
FEMALE								
Going out a lot at night	0.30	0.060	25.358	1	0.000	1.353	1.203	1.522
More than one day missed at school	0.52	0.047	123.253	1	0.000	1.678	1.532	1.839
Drunkenness	1.75	0.055	1,003.084	1	0.000	5.741	5.153	6.397
Friends/siblings who use drugs	2.48	0.089	773.179	1	0.000	11.998	10.070	14.295
Unsatisfactory relationship with the parents	0.41	0.047	74.875	1	0.000	1.504	1.371	1.649
Parents with little knowledge about the places where their children spent								
Saturday night	0.55	0.065	71.887	1	0.000	1.732	1.525	1.966
Alcohol consumption	0.69	0.058	141.217	1	0.000	2.001	1.784	2.243
Constant	-5.57	0.106	2,750.647	1	0.000	0.004		
MALE								
Going out a lot at night	0.56	0.055	104.500	1	0.000	1.759	1.578	1.960
More than one day missed at school	0.55	0.041	177.631	1	0.000	1.737	1.602	1.884
Drunkenness	1.52	0.048	1,019.476	1	0.000	4.574	4.166	5.021
Friends/siblings who use drugs	2.37							
Unsatisfactory relationship with the parents	0.45	0.071	1,104.763	1	0.000	10.670	9.280	12.268
Parents with little knowledge about the places where their children spent		0.046	93.207	1	0.000	1.566	1.430	1.715
Saturday night	0.38	0.051	57.371	1	0.000	1.469	1.330	1.623
Alcohol consumption	0.61	0.056	120.233	1	0.000	1.850	1.657	2.064
Constant	-5.09	0.092	3,083.658	1	0.000	0.006		

Table 6. Parameter estimates of the logistic regression model, by gender

beverages during the 30 days preceding the interview (OR=2.0 for females vs. OR=1.8 for males).

Concerning the interpersonal relationships with parents, the dissatisfaction is a risk factor for both genders: the OR is approximately 1.5 both for males and for females. The analysis shows also that the Odds Ratio for females whose parents have little knowledge about the places where they spent Saturday night is slightly higher than males (1.7 for females vs. 1.5 for males).

Accuracy of the estimated logistic regression model was assessed using the Hosmer-Lemeshow test [23]: the value of this test for the females' model is equal to 4.410 and the p-value equal to 0.818, while for the males' model the test is 3.699 and its p-value is equal to 0.883. These values lead to accept, or at least not reject the null hypothesis (H0), for which there are no differences between the observed and the expected values. So, it can be concluded that the estimated models satisfactorily reflect the data.

Finally, in order to complete the evaluation of these multivariate analyses, other validity measures, expressed in terms of probability, have been considered [24]. Sensitive and specific statistical measures evaluate the proportion of positive cases which are correctly identified as such (the true positive rate) and the proportion of negative cases which are correctly identified as such (the true negative rate), respectively.

The analysis of the classification tables obtained from the estimated logistic regression models, lead to quite highly specific evaluations (84.8% for the females' model and 80.4% for males) and satisfactory sensitivity evaluations (73.3% for females and 75.4% for males). Moreover, the percentage of cases correctly classified is quite high and equal to 82.5% for the logistic regression model estimated for female students and to 79.0% for the males' model.

Discussion

The results obtained from this study suggest giving a greater consideration to the degree of satisfaction of young people, especially of the females, with regards to themselves and their life [25]. A good level of satisfaction and resilience in life, constitute, in fact, a protective element against unhealthy behaviours such as the consumption of alcohol, tobacco and illegal drugs.

The family context and the relationships with parents seems to be equally important, not so much in relation to the presence and strictness of the rules, but according to the quality of the relationships with adults with reference to their role. The parents' lack of interest about the places frequented by their children and their friendships can be a signal for a possible use of drugs. It is well known that, in general, males are subject to a lower control and supervision by parents compared to females, and this can lead to a greater probability of being involved by disreputable friends, and to a possible use of illegal substances [19]. Also other studies show that teenagers who have unsatisfactory relationships with their parents are most driven towards substance abuse, increasing the risk of developing problematic behaviours [18].

One additional consideration should be made with respect to the presence of psychological/psychiatric problems in the family context, also in relation to the inappropriate use of tranquilizers and sedatives. Use and abuse of tranquilizers and sedatives, both regularly prescribed by a doctor and used without a medical prescription, characterizes in fact to a greater extent the Italian young females. Confirmation of these results can also be achieved at European level: the 2011 ESPAD report on the use of psychoactive substances in the 36 European participating countries, states that, on average, the tranquillizers and the sedatives without a medical prescription are mainly abused by females (8% for females vs. 5% for males, 15-16 year olds) [6]. Also the report of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), published in 2005, compares the consumption of substances by gender, stating that among the secondary school students (15-16 years old) the consumption of tranquilizers and sedatives is higher among the female students in all the European Union countries, with the exception of 4 Member States (Cyprus, Ireland, Norway and the UK). [11]

The inability of some females to solve their personal or family problems could be the gateway to the use of illegal substances. Specifically for females, more attention should be paid to the meaning and the value of their relationship with their partner, especially because of the central role that the boyfriend has in their first contact with psychotropic substances. The scientific studies confirm the results obtained in our study; in particular, the survey by Giusti et al. on 105 treated adolescents between 10 and 17 years of age [7], shows that, for both genders, the first contact with illegal drugs is carried out with peers (friends or classmates) for males, while for the females the partner plays a crucial role in the case of the first use of psychotropic substances.

Furthermore, our study shows that for all the analysed illegal substances, higher prevalence of consumption is observed for males than females, a result

also confirmed by international scholars [6, 11-12, 14, 18-20]. In addition, the most commonly taken drug among the students interviewed is cannabis (hashish or marijuana), with an increasing prevalence among males in relation to the time periods considered (at least once in the life, at least once in the last year, at least one once in the last month). In Europe, it was found on average, that 21% of males between 15 and 16 years have experienced at least one illicit drug in their lifetime, compared with 15% of females [6]. Moreover, the majority of the young people who have experienced a drug have used cannabis, and this is more likely to happen among males than females [11].

On the other hand, this study has some limitations. The main one is related to the self reported characteristic of the survey: since the main objective concerns the use of drugs, there may be an underestimation of some behaviours, for which the percentages of consumption may be biased. These aspects have been widely discussed in literature [26], other studies have reported that the “underreporting reports are relatively minor” [27-28].

Finally, even if the study involves both public and private schools, representing therefore the entire scholastic population, it does not encompass those leaving school, who are subjects that could potentially be at greater risk of drug consumption [29]. This limit is however obstructed by the investigation of all the age groups (15-19 years), considering that the dropping out of school is more common after the first two-year period [30].

Conclusion

The female gender seems to be less vulnerable to the illegal drug consumption. Nevertheless, within it there is a group at risk: in our study we have identified some risk factors for drug consumption in the female gender that are mainly the presence of friends/siblings who use illegal drugs, the experience of drunkenness at least once in the student’s lifetime, the consumption of alcoholic beverages during the 30 days prior to the interview.

For this reason it is important to continue with research and studies in order to increase and improve the knowledge and the understanding of the dangerous behaviours, focusing on the socio-relational aspects of the respondents, in order to better identify and implement best practices and models of prevention, providing some selective interventions aimed at those who, more than others, run the risk of becoming regular drugs users.

Some examples of actions to be taken by parents, may be the intensification of family support, offering selected interpretations and tools in order to help the parent-child relationship and, in the cases of dangerous behaviour, intervene with actions of early detection. At the base of all the possible interventions which aim to prevent the use of psychotropic substances, a moderate but consistent discipline of the children and the presence of well-defined family rules stand out, that, when absent must be developed and supported in the family context.

In addition to these primary actions, information and education on the psychotropic substances are needed in order to improve knowledge about the effects and damages of these drugs and give family the opportunity to discuss about the abuse of the legal and illegal substances.

References

- 1. Chau N, Baumann M, Falissard B, Chouet M and the Lorhandicap group.** Social inequalities and correlates of psychotropic drug use among young adults: a population-based questionnaire study. *Int J Equity Health* 2008; 7(1):3
- 2. Stronski SM, Ireland M, Michaund PA, Narring F, and Resnick M.D.** Protective correlates of stages in adolescent substance use: A Swiss National Study. *Journal of adolescent health* 2000; 26: 420-427
- 3. Report SPS-ITA 2012.** Indagine sul consumo di sostanze psicotrope negli studenti delle scuole secondarie di secondo grado. In: Dipartimento Politiche Antidroga, Roma 2012 www.politicheantidroga.it
- 4. European Monitoring Centre for Drugs and Drug Addiction – EMCDDA –** www.emcdda.europa.eu
- 5. The European School Survey Project on Alcohol and Other Drugs – ESPAD –** www.espad.org
- 6. Hibell B, Guttormsson U, Ahlström S, Balakireva O, Bjarnason T, Kokkevi A, et al.** The 2011 ESPAD Report - Substance Use Among Students in 36 European Countries. 2012
- 7. Giusti JS, Sañudo A, Scivoletto S.** Differences in pattern of drug use between male and female adolescents in treatment. *Rev Bras Psiquiatr* 2002; 24(2):80-2
- 8. Stocco P, Llopis Llácer JJ, DeFazio L, Calafat A, Mendes F.** Women drug abuse in Europe: gender identity. Palma de Mallorca : IREFREA, 2000
- 9. Stocco P, Llopis Llácer JJ, DeFazio L, Facy F, et al.** Women and opiate addiction: A European Perspective. Palma de Mallorca : IREFREA, 2002
- 10. Ramirez R, Hinman A, Weisner C,** Campbell C. Peer Influences on Adolescent Alcohol and Other Drug Use Outcomes. *J Nurs Scholarsh* 2012; 44(1):36-44
- 11. European Monitoring Centre for Drugs and Drug Addiction, 2005.** Differences in patterns of drug use between women and men.
- 12. Brady KT, Randall CL.** Gender differences in substance use disorders. *Addictive Disorders* 1999; 22(2): 241-252
- 13. High School and Youth Trends.** National Institute on drug abuse. U.S. Department of Health and Human Services National Institutes of Health. December 2012
- 14. Simões C, Gaspar Matos M, Moreno C, Rivera F, Batista-Foguet JM, and Simons-Morton B.** Substances use in Portuguese and Spanish Adolescents: Highlights from differences, similarities and moderating effects. *The Spanish Journal of Psychology* 2012; 15(3): 1024-1037
- 15. Li C, Pentz MA, Chou C-P.** Parental substance use as a modifier of adolescent substance use risk. *Addiction* 2002; 97: 1537-1550

- 16. Heron J, Barker ED, Joinson C, Lewis G, Hickman M, Munafò M, et al.** Childhood conduct disorder trajectories, prior risk factors and cannabis use at age 16: birth cohort study. *Addiction* 2013; doi: 10.1111/add.12268
- 17. O'Malley PM, Johnston LD, Bachman JG.** Alcohol use among adolescents. *Alcohol Health and Research World* 1998; 22(2): 85-94
- 18. Visintini R, Binda M, Gaj N.** L'uso di sostanze psicoattive nella popolazione studentesca: uno studio sul consumo di droghe e alcol tra gli studenti delle scuole milanesi. *Rivista di Psicologia Clinica* 2010; 2: 159-168
- 19. Svensson R.** Gender differences in adolescent drug use: the impact of parental monitoring and peer deviance. *Youth & Society* 2003; 34(3): 300-329
- 20. Berti A, Voller F, Cipriani F, Orsini C, Silvestri C, Sidoti F, et al.** Il fenomeno del policonsumo di sostanze psicotrope tra i giovani studenti toscani - Polydrug use among students in the Region of Tuscany. *Bollettino sulle Dipendenze* 2008; 31(1): 31-43
- 21. Diana G, Salvan A.** Campionamento da popolazioni finite. Cleup Editore, 1987
- 22. SPSS for Windows, Rel. 18.0.0. 2009. Chicago: SPSS Inc.**
- 23. Hosmer DW and Lemeshow S.** Applied Logistic Regression. 2nd ed. New York, NY: John Wiley & Sons, Inc; 2000
- 24. Galassi G.** Manuale di Metodologia Statistica. Società Editrice Universo (SEU), Roma, 2005
- 25. Kumpulainen K and Roine S.** Depressive symptoms at the age of 12 years and future heavy alcohol use. *Addict Behav* 2002; 27: 425-36
- 26. Harrison L.** The validity of self-reported drug use in survey research: an overview and critique of research methods. In: Harrison L. In: Harrison L, Hughes A, eds. NIDA Research Monograph Series, 167. The Validity of Self-Reported Drug Use: Improving Accuracy of Survey Estimates. Department of Health and Human Services, National Institute of Drug Abuse. 1997 pp 17-36
- 27. Cornelius, M., Leech, S., & Goldschmidt, L.** Characteristics of persistent smoking among pregnant teenagers followed to young adulthood. *Nicotine and Tobacco Research*. 2004 6, 59-169
- 28. Fendrich, M., Mackesy-Amiti, M., Johnson, T., Hubbell, A., & Wislar, J.** Tobacco reporting validity in an epidemiological drug-use survey. *Addictive Behaviors* 2004 30, 175- 181.
- 29. Bauman A, Phongsavan P.** Epidemiology of substance use in adolescence: prevalence, trends and policy implications. *Drug Alcohol Depend*. 1999 Jul 1;55(3):187-20
- 30. ISTAT.** The Italian Labour Force Survey, 2012

Misuse and abuse of prescription drugs among women: an urgent public health problem

Elisabetta Simeoni (1), Giovanni Serpelloni (2), Roberto Mollica (3)

(1) Coordinator, Service I, National Monitoring Center and International Relations, Presidency of the Council of Ministers, Department for Anti-drug Policy, Italy

(2) Head, Department for Anti-drug Policy, Presidency of the Council of Ministers, Italy

(3) Seconded National Expert, Department for Anti-drug Policy, Italy

Introduction

Before addressing the issue of prescription drugs, we consider worthwhile defining some essential terms which are fundamental in addressing this subject. We offer the following definitions for the terms “Addiction”, “Overdose”, “Off-label use”, “Misuse”, “Abuse”, “Occupational Exposure”:

Addiction: *complex and severely disabling brain disease which is linked to behavioural disorders, risks of contracting infectious diseases and psychiatric risks, all of which have severe consequences for the individual social life and health.*

Drug addiction is a disease which generally seems to be as a consequence of an initially voluntary behaviour of drugs consumption, but this condition brings serious risk to person’s health. To become affected by the disease, the use of psychotropic substances, after an initially voluntary use, creates, a progressive state of neuro-psychobiological alteration and pathological suffering capable of reducing a person’s ability to independently evaluate reality or decisions to be taken. The impact on subject’s ability to act of his or her own free will, depends on to the presence of compulsive behaviour characterised by a desire-see-use pattern of drug use. Addiction is characterized by inability (caused by craving) to consistently abstain, impairment in behavioural control, diminished recognition of significant problems with one’s behaviour and interpersonal relationships, and a dysfunctional emotional response.

Overdose: *it is an acute intoxication due to medication taking. This means the taking of a quantity of medicines, whether taken singularly or cumulatively, which is above the maximum recommended dose according to the authorised information on the product.*

Off-label use: *this refers to situations in which the medicine is intentionally used for medical purposes which do not match the product’s authorised information.*

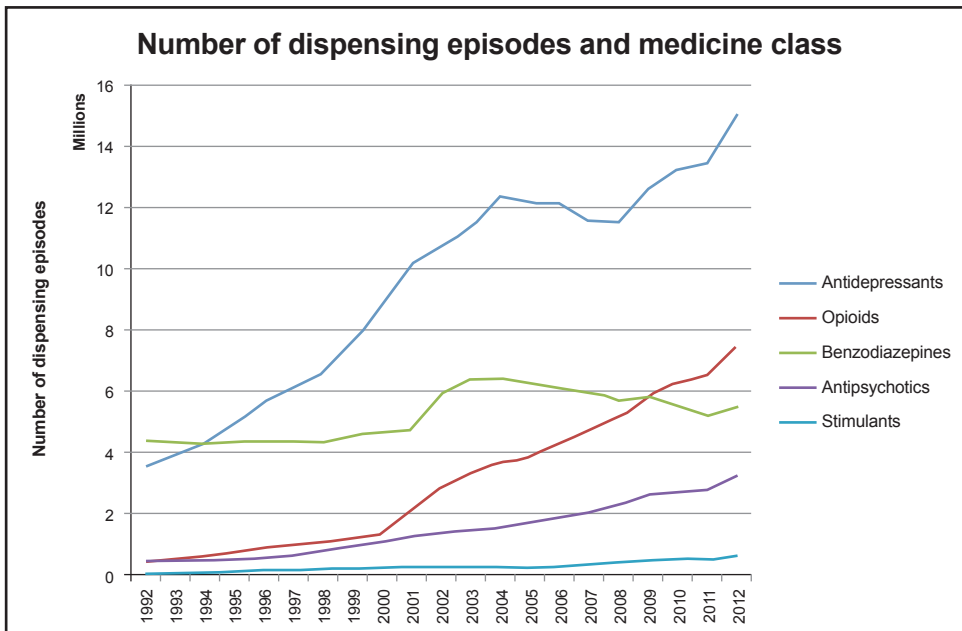
Misuse: *this refers to situations in which the medicine is intentionally and inappropriately used in a way which does not match the product’s authorised information.*

Abuse: *this refers to intentional and excessive use of the medicine, whether sporadically or persistently, accompanied by harmful physical or psychological effects.*

Occupational exposure: *this refers to exposure to a medicine as the result of a professional or other commitment.*

Considering drug addiction as an illness is a necessary premise. Addiction to prescription drugs should, therefore, also be considered an illness. This addiction leads to the same symptoms found in people who are addicted to illegal substances: problems with memory loss, inability to consistently abstain, damage to interpersonal abilities. As with other illnesses, addiction to prescription drugs entails cycles of relapses and withdrawal which, without suitable treatment, can lead to serious disabilities or premature death.

In the United States, Canada, South Africa, Australia but also in Europe, the phenomenon of the misuse and abuse of prescription drugs has become extremely worrying: it involves an increasing number of individuals in an increasingly chronic and dangerous fashion. The spontaneous and not medically supervised use of prescription drugs is illegal and second only to the use of marijuana. In the United States, from 1997 to 2007, the use of prescription opioids in milligrams per person rose by 402%, from 74 to 369 milligrams, with an increase in the sales of these substances, from 2000 to 2009 of 48%. Again in the U.S.A., 2.8% of the population aged over 12, corresponding to 7 million people, has used prescription drugs for non-medical purposes. In Australia, in the last 12 months, at least 3% of the population has used prescription drugs for non-medical purposes. Canada has become,



Data taken from the presentation by Prof. Nicholas Lintzeris at the Gmh meeting in Vilnius, Lithuania, September 2013

according to the International Narcotics Control Board, the second biggest consumer of opioids, with an increase in overdoses, between 1999 and 2004, of 416%.

In Europe there is still no precise data available as well as in other countries, but according to the existing data there is reason to believe that the misuse and abuse of prescription drugs has grown markedly in Europe too. It is therefore clear that it is a global health emergency. Millions of people are victim in numerous countries, and this phenomenon presents a danger to society comparable to that of the use and abuse of illicit drugs.

Prescription drugs and women

From the studies carried out so far one fact emerges: women are the social category which has most been affected by the emergence of the phenomenon of the misuse-abuse of prescription drugs. According to the Center for Disease Control and Prevention, in the United States, from 1999 to 2010, the number of women who died due to overdosing on prescription drugs rose by more than 400%, while the number of men who died for the same causes rose by 265%. In absolute terms still more men than women die due to overdosing on medicines or drugs generally, but almost 50% of women who die due to overdose are killed by an overdose of prescription drugs. Every three minutes an American woman undergoes emergency care for the misuse or abuse of prescription drugs.

There may be a range of reasons underlying this new scenario. There are physiological reasons: women are two or three times more likely to suffer from chronic pain and depression than men. Some studies have shown that women are, therefore, more likely to be prescribed prescription drugs, be given higher doses, and use them for longer periods than men. The level of risk of abusing

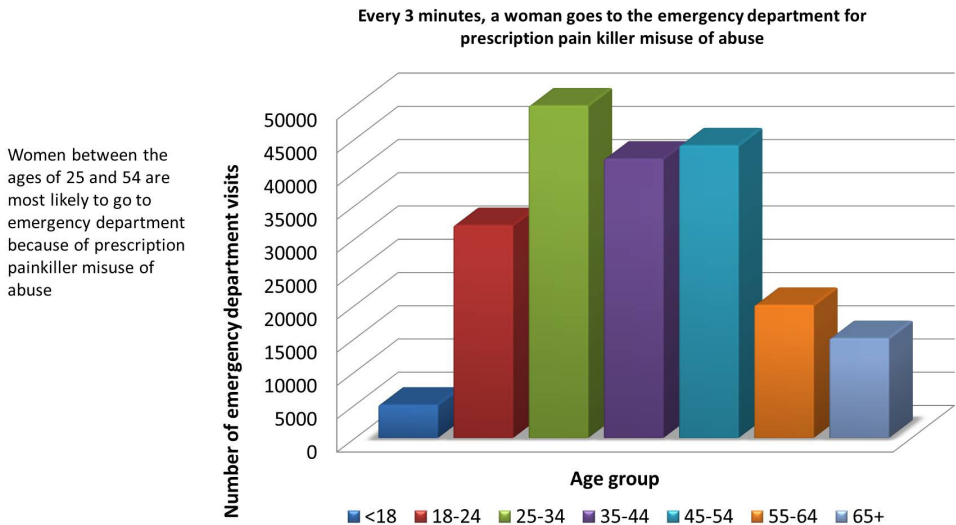


Image and data taken from CDC, Vitalsigns, Prescription Painkiller Overdoses

prescription drugs is therefore higher for women than for men. However, there are also cultural reasons. According to the CASA of Columbia University, women are less willing to report their drug addiction and, thus, have less chance of entering drug addiction treatment. Moreover, it seems that social disapproval of drug abuse is lower when it is a matter of non-medical use of prescription drugs, especially by women. American women have also shown themselves to be more inclined to “doctor shopping”, the practice of a patient requesting care from multiple physicians, often simultaneously, without informing the physicians of the multiple caregivers.

It is a problem which must be addressed with the appropriate means. The use of opioids, benzodiazepine and anti-depressants for medical reasons is a right of sick people, which was hard won through technical and scientific progress. Many illnesses can now be treated and cured better than in the past: side effects have been reduced as chemical substances become pharmacologically safer, and the risk of addiction from these drugs has markedly fallen, although it still exists. It is therefore necessary to guarantee this right, but not to allow that an increasing number of people fall victim to addiction to these substances. Policies which are based on an approach which addresses these two facts seem to be the most appropriate way to start to effectively combat a socially dangerous phenomenon. It is dangerous not only for women - and this should capture the attention of policy makers, healthcare professionals, and specialists and drive them to seek to stem this tide - but also for the health of their own children. The abuse of prescription drugs by pregnant women threatens the health of the foetus. In the United States there was a 300% increase in the symptoms of neonatal abstinence syndrome between 2000 and 2009. Even if not afflicted by this illness, there remains the problem that children born from a mother who has this addiction might not be guaranteed adequate parental care. Starting to study this phenomenon adopting a gender perspective, which recognises the particular physiological and cultural aspects of women, is an imperative which is enforced on us by the respect that each individual deserves, in terms of his/her intrinsic dignity, but above all for the respect we owe to the future of the world, i.e. to our children.

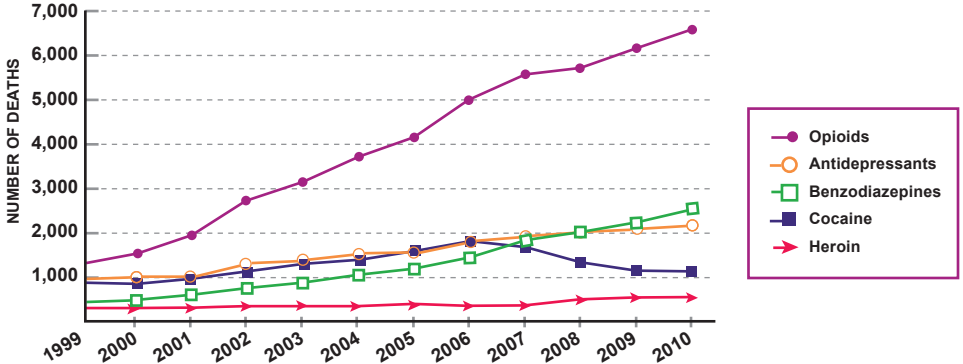


Image and data taken from CDC, Vital signs, Prescription Painkiller Overdoses

It is absolutely essential to try to draw up and implement a global plan to combat this phenomenon with particular regard to women. However, such a broad plan of action requires common grounds among policy makers, physicians and scientists. Addiction to prescription drugs is, and must be recognised as, an illness which must be treated in the same way as addiction to traditional drugs such as cocaine and heroin. As well as illegal drugs, the non-medical use of opioids, benzodiazepine and anti-depressants can kill. And this must be considered by everyone as an unacceptable phenomenon which must be fought and avoided.

Health through awareness

The studies conducted so far highlight one fact: the subjects most at risk from the misuse or abuse of prescription drugs tend to be better educated women with a higher than average income and aged over 35. However, younger women too are an at-risk category: among European students they are more likely to use prescription drugs for non-medical purposes or for an off-label use.

A statistical survey undertaken in 2010 by the NIH, American National Institute of Health, confirms this trend: women were more inclined than men (1.59 times) to use opioids in the month prior to the survey, and (1.50 times) to have recently abused opioids. The NIH's study also looked into the ways in which women procured medicines. Here below we set out the data on Vicodin, one of the most commonly used painkillers in the United States.

Most women (44.6%) procured Vicodin from family and friends, secondly (33.7%) from dealers and only as a final resort as a regularly prescribed drug (25.4%). The research showed that a favoured way to obtain medicines for non-medical use is social networks and the Internet.

It is therefore necessary to plan and implement an awareness-raising plan to make women aware of the risk they run by using prescription drugs for non-medical purposes. The composition of this particularly at-risk category has characteristics which suggest an action plan at several levels in order to increase awareness, not only among women, but also among policy makers and in the scientific community.

Young women

Young women (over the age of twelve) are one of the most at-risk categories for the misuse and abuse of prescription drugs. There are cultural reasons for the phenomenon of the addiction to prescription drugs: users are very often convinced that they are not harmful. This ignorance, combined with a relative ease in finding such medicines in the drug cabinets of relatives and friends, or even better online, may potentially lead to the phenomenon exploding and it could then become even more difficult to control.

Making people aware of the danger in using prescription drugs for non-medical purposes must therefore be a priority. Also the use of prescription drugs can, like cannabis, represent the entry point for the use of other drugs such as amphetamines, cocaine or heroin. This is the message which must be launched and which we must ensure is clear and fully understood.

Women aged over 35

This is currently the category of most concern. While it is true that many people, women and men, young and old, use prescription drugs for non-medical purposes, it is also true that women over 35 constitute the group which makes the most use of prescription drugs. This means that women over 35 have developed, or are at risk of developing, a specific addiction to prescription drugs. The ignorance of most women about the possible negative effects from the use of prescription drug seems to be confirmed by the survey carried out by the NIH in 2010: more than 90% of intoxication from prescription opioids was unintentional. The reasons which can be put forward to explain this phenomenon are various, but certainly the increased availability on the legal and illegal market and ignorance of the negative effects of such substances are a leading factor.

What can be done

In light of the above, policy makers should draw up a strategic plan targeting all those involved in the problem of the misuse and abuse of prescription drugs. The plan should: appropriately collect data to monitor and understand the phenomenon, raise the awareness of medical doctors to a more responsible and less casual approach to drug prescription, and make women aware of the risks they run by using prescription drugs without following medical indications and/or supervision.

Specifically, policy makers should collect data to monitor the phenomenon and to establish its real extent in order to intervene with effective measures contained in a structured strategic plan. The well-respected CDC, Centre for Disease and Control Prevention, in a recent publication drew up a plan which we set out below:

- Take steps to improve PDMPs (Prescription Drug Monitoring Program), such as real time data reporting and access, integration with electronic health records, proactive unsolicited reporting, incentives for provider use, and interoperability with other states.
- Identify improper prescribing of painkillers and other prescription drugs by using PDMPs and other data.
- Increase access to substance abuse treatment, including getting immediate treatment help for pregnant women.
- Consider steps that can reduce barriers (such as lack of childcare) to substance abuse treatment for women.

Another category which should be considered is the one of health care providers. Still today there is some reluctance on the part of doctors to recognise that women could be at risk of prescription drug overdose. Having medical doctors, dentists and pharmacists who are aware of the risk inherent in the casual prescription and sale of benzodiazepine, opioids and anti-depressants, above all to women, is essential in order to combat this problem which the United States' Government has not hesitated to label as an "epidemic".

The CDC has drawn up a guideline which healthcare providers should follow, in particular when dealing with pregnant women. We set it out below.

- Recognize that women can be at risk of prescription drug overdose.
- Discuss pain treatment options, including ones that do not involve prescription drugs.
- Discuss the risks and benefits of taking prescription painkillers, especially during pregnancy. This includes when painkillers are taken for chronic conditions.
- Follow guidelines for responsible painkiller prescribing, including:
 - Screening and monitoring for substance abuse and mental health problems.
 - Prescribing only the quantity needed based on appropriate pain diagnosis.
 - Using patient-provider agreements combined with urine drug tests for people using prescription painkillers long term.
 - Teaching patients how to safely use, store, and dispose of drugs.
 - Avoiding combinations of prescription painkillers and benzodiazepines (such as Xanax and Valium) unless there is a specific medical indication.
- Talk with pregnant women who are dependent on prescription painkillers about treatment options, such as opioid agonist therapy.
- Use prescription drug monitoring programs (PDMPs) - electronic databases that track all controlled substance prescriptions in the state - to identify patients who may be improperly using prescription painkillers and other drugs.

However, women themselves must be considered as a category to which an awareness raising plan should be directed. Being aware that they are just as at-risk as men is very important. Women themselves must take an active part in the battle against this serious phenomenon. The CDC has done an excellent job in setting out what women should do to avoid falling into the addiction trap, or how they can get out of it if they are already victims. Here below are the indications of the CDC.

- Discuss all medications they are taking (including over-the-counter) with their health care provider.
- Use prescription drugs only as directed by a health care provider, and store them in a secure place.
- Dispose of medications properly, as soon as the course of treatment is done. Do not keep prescription medications around “just in case.”
- Help prevent misuse and abuse by not selling or sharing prescription drugs. Never use another person’s prescription drugs.
- Discuss pregnancy plans with their health care provider before taking prescription painkillers.
- Get help for substance abuse problems.

References

AIHW, Australian Institute of Health and Welfare, 2007 National Drug Strategy Household Survey: detailed findings, Statistics series 22, Canberra.

CASA, National Center on Addiction and Substance Abuse at Columbia University, The formative Years: Pathways to Substance Abuse among Girls and Young Women ages 8-22, 2003.

http://www.casacolumbia.org/articlefiles/380-formative_years_pathways_to_substance_abuse.pdf

CASA, National Center on Addiction and Substance Abuse at Columbia University, Under the Rug: Substance Abuse and The Mature Woman, 1998.

<http://www.casacolumbia.org/articlefiles/379-Under%20the%20Rug.pdf>

CDC, Center for Disease Control and Prevention, Policy impact: prescription painkiller overdoses.

<http://www.cdc.gov/homeandrecationalsafety/rxbrief/>

CDC, Center for Disease Control and Prevention, Prescription Painkiller Overdoses, CDC Vital signs, 2013.

<http://www.cdc.gov/vitalsigns/PrescriptionPainkillerOverdoses/>

CDC, Center for Disease Control and Prevention, Emergency Department Visits Involving Non-medical Use of Selected Prescription Drugs, U.S. 2004-2008, 2010.

CDC, Center for Disease Control and Prevention, Vital Signs: Overdoses of Prescription Opioid Pain Relievers and Other Drugs among Women, U.S. 1999-2010, Morbidity and Mortality Weekly Report, 2013.

Department for Anti-Drug Policies, Italy, “Main principles of the Italian position against drug use”, 2011.

Department for Anti-Drug Policies, Italy, “National Action Plan on Drugs 2010-2013”, 2010.

Department for Anti-Drug Policies, Italy, “New drugs and National Action Plan”, 2013.

EMCDDA, The State of the drugs problem in Europe, 2011.

ESPAD, The 2007 ESPAD Report, Substance use Among Student In 35 European Countries, European School Survey Project on Alcohol and Other Drugs, 2007.

LITHUANIAN PRESIDENCY of the COUNCIL of the EU, “Misuse of prescribed medicines. A basis for common understanding”, 2013.

NIH, T.C. Green, J.M. Grimes Serrano, S.H. Budman, S.F. Butler, Women Who Abuse Prescription Opioids: Findings from the Addiction Severity Index-Multimedia Version Connect Prescription Opioid Database, National Institute of Health, 2010.

ONDCP, Office of National Drug Control Policy, New Data Reveal Doubling of Emergency Department Visits Involving Pharmaceutical Abuse, 2011.
<http://www.whitehouse.gov/ondcp/news-releases-remarks/new-data-reveal-doubling-of-emergency-department-visits>

ONDCP, Office of National Drug Control Policy, Ondcp's Prescription Drug Abuse Prevention Plan.
<http://www.whitehouse.gov/ondcp/prescription-drug-abuse>

SAMHSA, The Substance Abuse and Mental Health Service Administration, Result from the 2008 National Survey on Drug Use and Health: National Findings, U.S. Department of Health and Human Services, 2009.

SAMHSA, The Substance Abuse and Mental Health Service Administration, Prescription drug misuse remains a top public health concern, 2013.
<http://www.samhsa.gov/newsroom/advisories/1301084404.aspx>

SAMHSA, The Substance Abuse and Mental Health Service Administration, State Estimates of Non-medical Use of Prescription Pain Relievers, 2013.
<http://www.samhsa.gov/data/2k12/NSDUH115/sr115-nonmedical-use-pain-relievers.htm>

SAMHSA, The Substance Abuse and Mental Health Service Administration, Prevent Prescription Drug Abuse, 2009.
<http://www.samhsa.gov/rxsafety/>

UNODC, World Drug Report 2012, United Nations Vienna, 2012.

UNODC, The non-medical use of prescription drugs: policy direction issues, United Nations Vienna, 2011.

WHITE HOUSE, Epidemic: Responding to America's Prescription Drug abuse Crisis, 2011.
http://www.whitehouse.gov/sites/default/files/ondcp/issues-content/prescription-drugs/rx_abuse_plan.pdf

Preventing and addressing intimate partner violence

**Joan Colom (1), Heinrich Geldschläger (2), Oriol Ginés (2),
Montse Plaza (2), Álvaro Ponce(2), Lidia Segura (1), Ester Valls (1)**

(1) Program on Substance Abuse, Public Health Agency of Catalonia, Barcelona, Spain

(2) Association Conexus, Barcelona, Spain

Introduction

Justification

Violent conduct related to alcohol and substance abuse, particularly intimate partner violence (IPV) has long been recognized as a serious psychosocial, healthcare, and judicial problem (WHO European Centre for Environment and Health, 2005). Both the acute effects (i.e. intoxication) and the chronic patterns (e.g. addiction) of alcohol and drug consumption are associated with violence in emotional relationships, not only when exercising but also when suffering, and a growing number of empirical studies worldwide corroborate this relationship (Klostermann and Fals-Stewart, 2006).

Studies indicate that between 25 and 33 percent of domestic violence is carried out after drinking alcohol and that a smaller proportion of victims have also drunk alcohol before being assaulted (Leonard, 2001; Finney, 2004; Kaufman, Kantor and Straus, 1990). In Spain, a representative survey shows that consuming alcohol or other drugs multiplies the probability of both inflicting and suffering violence in a romantic relationship by three to ninefold (Sánchez et al., 2004).

According to various studies on specialized services in the treatment of substance abuse, between 40 and 80 percent of those who receive treatment there, are either perpetrators or victims of domestic violence (Bennet and Williams, 2003; Murphy et al., 2001; Brown et al., 1998; for a review Fals-Stewart and Kennedy, 2005). Other studies produce similar results for men in domestic violence rehabilitation services (Bennett and Williams, 2003; Gondolf, 2002; Moore and Stuart, 2004).

A meta-analysis by Stith et al. (2004) on different risk factors for the use of physical intimate partner violence calculated a medium correlation of $r = .24$ with alcohol abuse (from 22 studies with a total number of 14,541 respondents) and of $r = .31$ with illegal drug abuse (from 5 studies with a total number of 4,496 respondents). Another meta-analysis of the relationship between alcohol consumption and IPV (Gil-González et al., 2006) confirmed that the probability of using violence against a partner was on average 4.5 times higher for men who drink alcohol than for those who do not (from 11 studies with a total number of

25,116). More recently, two meta-analytical studies summarized, statistically, the research on the relationship between IPV and alcohol consumption (Foran and O'Leary, 2008) and the consumption of other drugs (Moore et al., 2008). Foran and O'Leary (2008) summarize 55 studies published between 1980 and 2006 regarding the correlation found between alcohol consumption and violence used against the partner including different moderating variables that may have an influence thereon. From 47 studies with 21,155 male respondents, the average correlation between alcohol consumption and physical violence used by men against their partner was $r = .23$, while, in the case of women, this correlation was only $r = .14$ (based on 8 studies with a total of 3,003 women). On the other hand, Moore et al. (2008) summarize the results of 96 published and unpublished studies between 1966 and 2005 on the relationship between indicators of drug consumption (use, abuse, dependence, problems) and different types of IPV (physical, psychological, sexual, mixed). The principal results of the relationship between drug use (both by the victim and by the aggressor) and IPV (perpetrated by both men and women, users or not) are the following: the medium on all types of drugs and all types of violence was $d = 0.32$. The drug most related to IPV was cocaine ($d = 0.45$), followed by multiple consumption or mixed consumption ($d = 0.38$), marijuana ($d = 0.22$), other stimulants ($d = 0.19$), hallucinogens ($d = 0.12$), sedatives and tranquilizers ($d = 0.10$) and opiates ($d = 0.04$). For types of violence, the one most related to drug use was psychological ($d = 0.42$), followed by physical ($d = 0.33$), mixed ($d = 0.31$) and sexual abuse and coercion ($d = 0.28$).

In summary, an increasing number of empirical studies corroborate the correlation between substance use and intimate partner violence, a fact which has led various authors to highlight the necessity to tackle the twin problems in treatment services (Fernández- Montalvo, López-Goñi and Arteaga, 2011; Temple, Stuart and O'Farrell, 2009).

In this regard, the Program on Substance Abuse of the Public Health Agency of Catalonia, which is responsible for the administration of the Network of Substance Abuse Treatment Centers (XAD) attending around 13,000 people per year, carries out actions designed to promote research on these two problems, to improve the training of professionals, and to seek prevention and care solutions. This network's efforts led to the creation of the Programme for addressing intimate partner violence in substance abuse treatment centres, which is briefly described later in this chapter.

Institutional frame

The Programme for addressing intimate partner violence in substance abuse treatment centres is framed, firstly, within the continued efforts that are being made by the Public Health Agency of Catalonia to integrate the gender perspective in its health promotion and prevention efforts (for example relating to tobacco, mother-infant health, drugs, etc.). Secondly, it is framed within the commitments orchestrated by the "Framework Protocol for a Coordinated Intervention against Gender-based Violence" (Catalan Women's Institute, 2009) and the National commission for a coordinated intervention against gender-based violence, which

aims to provide a unified, coordinated and appropriate response to gender-based violence in Catalonia, thus consistent with Law 5/2008 of 24th April, on the right of women to eradicate sexist violence.

This protocol has been translated into two relevant documents: the Protocol for Tackling Sexist Violence in the Ambit of Health in Catalonia, published in December 2009, and the corresponding Operative Document On Substance Abuse, published in February 2010.

Terminology

Acknowledging that intimate partner violence is more often committed by men against women, and without wishing to minimize it in any way, we have opted for the World Health Organization's definition of IPV (Krug et al., 2002, p.89) because violent acts committed against partners by women and/or in homosexual relationships would be explicitly excluded by the definitions of sexist violence¹ or gender-based violence² given by Catalan and Spanish law, respectively.

"Intimate partner violence refers to any behaviour within an intimate relationship that causes physical, psychological or sexual harm to those in the relationship. Such behaviour includes:

- Acts of physical aggression – such as slapping, hitting, kicking and beating.
- Psychological abuse – such as intimidation, constant belittling and humiliating.
- Forced intercourse and other forms of sexual coercion.
- Various controlling behaviours – such as isolating a person from their family and friends, monitoring their movements, and restricting their access to information or assistance.

[...] Intimate partner violence occurs in all countries, irrespective of social, economic, religious or cultural group.

Although women can be violent in relationships with men, and violence is also sometimes found in same-sex partnerships, the overwhelming burden of partner violence is borne by women at the hands of men." (WHO, 2005)

¹ Law 5/2008, of 24th April, on the right of women to eradicate sexist violence, defines this as "violence that is perpetrated against women as a manifestation of discrimination and the situation of inequality in the framework of a system of power relations of men over women and which, produced by physical, economic or psychological means, including threats, intimidation and coercion, results in physical, sexual or psychological harm or suffering, whether it is produced in the public or private spheres".

² Organic Law 1/2004 of 28 December, on Comprehensive Protection Measures against Gender-based Violence defines this as that "violence exercised against women by their present or former spouses or by men with whom they maintain or have maintained analogous affective relations, with or without cohabitation, as an expression of discrimination, the situation of inequality and the power relations prevailing between the sexes" and "encompasses all acts of physical and psychological violence, including offences against sexual liberty, threats, coercion and the arbitrary deprivation of liberty."

Background

In 2005, the Program on Substance Abuse created a working group on drugs and violence formed by experts both in the ambit of substance abuse treatment and that of intervention in intimate partner violence with the objective of leading and coordinating the necessary actions to make the program possible.

In the ensuing sections, the group's main efforts (listed below) are briefly summarized:

- Bibliographic review on the relationship between substance abuse and intimate partner violence, and the creation of a conceptual and explanatory model.
- Survey of opinions, practices, and needs in order to address intimate partner violence in substance abuse treatment centers.
- Advocacy and participation in the formulation of strategic documents.
- Training of professionals.
- Study on the prevalence of intimate partner violence and its risk factors in men attending substance abuse treatment centers.
- The creation of guides for professionals: a general one for addressing and preventing intimate partner violence at the individual level, and one for preventing and addressing the issue in groups.

Review of the literature and proposal for a model to explain the relationship between substance use and intimate partner violence

This document outlines the conceptual and theoretical bases of the program through a critical review of the relevant literature and by proposing a conceptual model. The processual and multidimensional model proposed is founded on the empirical evidence extracted from the different bibliographical sources consulted and seeks to integrate the different explanatory levels (biological, psychological, relational and socio-cultural) encountered.

Principal perspectives on the relationship between substance use and intimate partner violence

1 There's empirical evidence from different theoretical levels that corroborates and explains the relationship between alcohol or drug consumption and violence. We distinguish four principal perspectives from which the relationship between alcohol consumption and violence has been studied:

The biological perspective maintains that the ingestion of alcohol or other substances produces physiological changes at a synaptic and hormonal level, which dis-inhibit the centers of cerebral control, provoking an outbreak of conducts habitually inhibited, such as violence. It establishes that the ingestion of alcohol has a pharmacological effect that increases aggressiveness in humans (Exum, 2006). These explanations focus principally on alterations or deficits in the cognitive system and the control

- of impulses (Giancola, 2007, Pihl et al., 2003, George et al., 2004).
- 2 The psychological perspective is founded on theories of learning that affect personal belief systems and expectations about the use of alcohol, which would have a significant influence on violent conduct. Thus, models of social learning will play an important role in the development of both substance use and intimate partner violence (White and Widom, 2003; Boles and Miotto, 2003; Chermarck and Giancola, 1997).
 - 3 The relational and interpersonal perspective maintains that the characteristics and dynamics of family and partner relationships may lead to both alcohol and drug consumption, and violent behavior (Bowlby, 1984; Babcock et al., 2000; Crittenden, 2000; Crittenden and Claussen, 2002; Fonagy, 2001).
 - 4 The socio-cultural perspective is based on the processes of socialization. It gives particular importance to socially permitted and prohibited conducts, and to the processes that culturally promote attribution, justification, and explanation of one's own behavior when alcohol or another drug is ingested. The socio-cultural perspective maintains that drug abuse and gender violence problems are understood principally through aspects referring to the dynamics of power and the manner of transmission of these cultural practices that prescribe behaviors aimed at establishing and maintaining power and control in a relationship (Fox, 2008; Zubretsky and Digirolamo, 1996; Leonard, 2002; Galvani, 2004).

A complex processual model

The proposed complex processual model considers the four explanatory levels described above, and enables us to understand the close relationship that

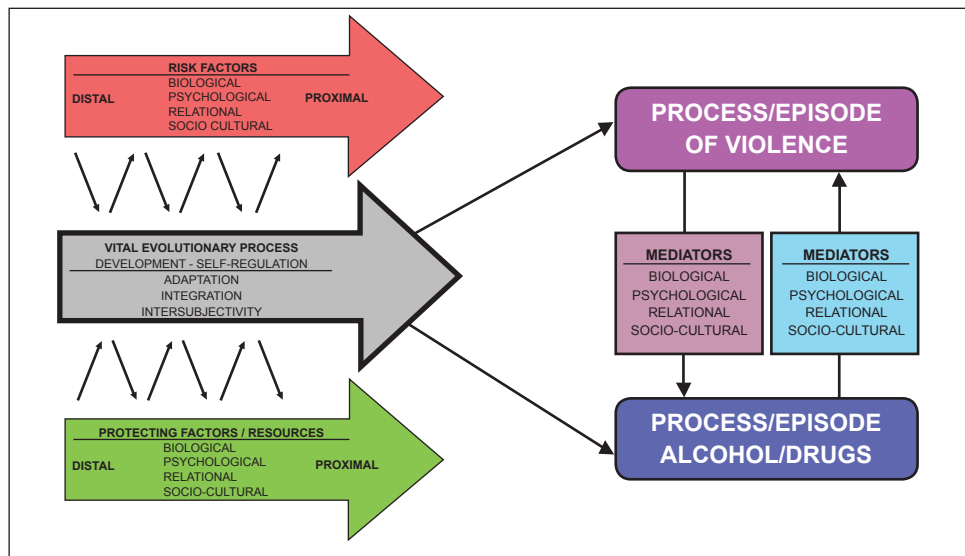


Figure 1: Model of the relationship between substance use and intimate partner violence

	Common risk factors / processes	
	Distal	Proximal
Biological	Genetic Prenatal harm caused by alcohol / drugs Posterior structural harm Cerebral and neuro-chemical alterations	
Psychological and relational	Traumas (sexual and physical abuse, negligence or abandonment) and their consequences Deficient upbringing Personality disorders Low self-esteem, personal insecurity, anxiety Cognitive disorders (executive function) Learning to use violence / alcohol and drugs as a confrontation strategy Insecure attachment Negative models of oneself, others and relationships Lack of social abilities (communication, empathy, resolution of conflicts)	Negative self-evaluation in terms of the demands of one's environment Feeling of failure, inferiority, impotence, inadequacy Perception of frustration or provocation Difficulties with emotional self-regulation Mental rigidity, low cognitive complexity Relational conflicts and dissatisfaction (frequent criticisms / complaints by partner) Reduced social network
Socio-cultural	Models of gender and power which propose consumption of alcohol / drugs and the use of violence as signs of masculinity and which do not permit emotions related with vulnerability, etc. Permissive / enabling culture regarding alcohol / drugs and violence (removal of responsibility, impunity etc.)	Socioeconomic stress factors (unemployment, economic problems, separation or divorce, etc.) Permissive / enabling environment regarding alcohol / drugs and violence (removal of responsibility, impunity etc.)

Table 1: Risk factors / processes common to substance use and intimate partner violence

exists between substance use and situations of intimate partner violence. The model has as its starting point four basic suppositions:

- 1 Interpretation of the phenomenon, from a perspective oriented to processes, as an evolutionary framework inserted within a praxis of living, and not as an isolated, de-contextualized and a historical fact.
- 2 Consideration that a single reason or explanatory level for the phenomenon does not exist.
- 3 Acknowledgement of the “epistemic subject,” a proactive subject who constructs his or her own reality and takes a position, rather than a neutral and passive observer before the world.

- 4 A gender perspective, which considers that the dynamics of power and the ways in which cultural practices for becoming a man or a woman are transmitted, are aimed at establishing and maintaining the power and control of some over the others.

From a processual perspective we consider these two problems (substance abuse and IPV) as expressions or manifestations of an evolutionary personal process of living (Figure 1). This evolutionary process generates forms of self-regulation and self-organization which will become established and translated into a definite position before existence, a praxis of living, and a way of acting when faced with different situations (Guidano, 1991, Crittenden, 2000, Mahoney, 1991, Arciero, 2004). It is formed principally by three dimensions:

- **Adaptation:** the creation of a regularity, which makes possible the constitution of a “familiar” world and which continues in time, and can be anticipated.
- **Integration:** enables the assimilation of elements and occurrences that are inconsistent with this continuity.
- **Intersubjectivity:** provides a symbolic reality which superimposes itself upon material “reality”, generating a personal and shared meaning of one’s own world, and that of others.

The evolutionary process of living and its dimensions (adaptation, integration and intersubjectivity) are affected by modifiers (evasion and compensation) that are habitual in human processes, but critical to the organization of identities of persons with problems with drugs and/or violence. Therefore, in the first instance, the concurrence of a process or episode of violence and a process or episode of substance abuse can occur in parallel, due to an evolutionary process of living with risk factors and processes common to both phenomena.

Among the common distal risk factors, we can highlight those family conditions that shape attachment relationships during the first years of life. Among the common proximal risk factors, we include those which are most contingent to the present processes of substance abuse and/or intimate partner violence (Table 1).

Another area of interaction is shaped by mediating factors, which act as bridges between the processes of violence and the processes of substance abuse, or vice versa, and which act on the different levels previously mentioned (biological, psychological, relational and social) leading a person with a problem of substance abuse to use violence, or vice versa (Table 2).

Survey of opinions, practices and needs to address intimate partner violence in substance abuse treatment centers

A survey (Jou, Valls and Segura, 2008) was conducted at 34 centers (57% of all the substance abuse treatment centers in Catalonia). The following is a summary of the results:

	Mediators	
	Drugs - violence	Violence - drugs
Biological	Acute pharmacological effect (intoxication effects neurocortical control of thoughts and actions) Neurophysiological deterioration due to chronic abuse	Self medication (use of the sedative amnesiac properties of alcohol to avoid violence as well as after using or suffering it)
Psychological and relational	Expectations about the consequences of alcohol (more power, aggressiveness, etc.) Mood swings and build-up of emotion Feelings of guilt, shame, failure, etc Conflicts caused by or aggravated by alcohol and drug use (problems with partner, economic problems, problems at work, irritability due to withdrawal symptoms, etc.)	Attempts to reduce feelings of guilt or shame due to use of violence (drinking to forget) Attempts to reduce anxiety or depression as consequences of violence (rupture) Avoiding / breaking off any possibility of interacting with the partner or of confronting the conflict
Socio-cultural	Culture which facilitates the use of violence under the effects of alcohol and drugs (impunity, permissiveness, etc.) Processes of belonging and group bonding through substance use	Consumption of alcohol or drugs as alibi / excuse for planned assaults (due to socio-cultural impunity) Need to establish bonds within a violent relationship or with other violent people (victims or aggressors)

Table 2: Processes / factors mediating between substance use and intimate partner violence

- The detection of possible victims is only regularly done in 32% of the centres and the detection of possible aggressors in only 27%.
- In 85% of the centers there is no system of detection of violence upon the first visit.
- More than half of the centers (53%) do not have a protocol for action on intimate partner violence.
- Only 35% of the centers have trained professionals to act in cases of IPV.
- In 94% of centers there is no recordings of cases of IPV.
- 47% of centers strongly agree with the need to have a protocol of action.
- 70% agree fairly strongly or strongly with the need to have a single model for recording IPV.
- 88% of centers agree fairly strongly or strongly with the idea of designing a guide to recommendations and action.
- 90% of centers say that specific training in the XAD is necessary and should focus particularly on the acquisition of skills and knowledge of the resources available.

Substance Abuse Treatment Centers (CAS) are in a privileged position for the detection, diagnosis and prevention of intimate partner violence in substance users who are often victims or aggressors of a variety of typologies of violence. Their continued and prolonged therapeutic relationship permits early detection and intervention of both problems.

Advocacy and participation in the formulation of strategic documents

Members of the working group participated in formulating two strategic documents: the Protocol for Addressing Sexist Violence in the Health Sector In Catalonia (Department of Health, 2009), and the corresponding Operative Document on Substance Abuse (Department of Health, 2010). In the protocol the consumption of substances was included, with no difficulties, as a risk factor. In the operative document, significant stress was placed on the specificities of the context of substance abuse and possible profiles, but also on the practical sections on addressing intimate partner violence in prevention, detection, and intervention as well as referral to specialist services and coordination with them.

At the level of advocacy, among other things, the program has been presented in different work sessions of the Barcelona Circuit to combat violence against women in both 2009 and 2010, which allowed creating links of collaboration and exchange with the network of attention for intimate partner violence.

Training of professionals

To address the need for training detected in the above-mentioned survey of centers, the “Course for professionals of the XAD: Intimate partner violence and its relationship with consumption of alcohol and other substances” was designed, with a duration of two days (16 hours), consisting of the following basic modules which, in different editions, are complemented with examples of the praxis of different centers of the XAD:

- Gender perspective in substance abuse.
- The relationship between substance use and intimate partner violence: empirical data and explanatory model.
- Profiles of victims and aggressors being treated in substance abuse treatment centers.
- Intimate partner violence: the professionals’ perspective.
- Legal aspects and the process of judicial intervention.
- Strategies, tools, and skills for interviewing women (presumed victims).
- Strategies, tools, and skills for interviewing men (presumed aggressors).
- Children of victims and aggressors who are consumers: consequences and approach.
- Protocols, circuits and resources related to gender violence;
- Experiences in substance abuse treatment centers and case work.
- Addressing intimate partner violence in the XAD: debate and conclusions.

From the five courses that have been administered thus far, over 100 professionals have been trained from more than 30 different CAS. These professionals have provided especially positive evaluations in response to the “interest and relevance of the [course] contents”, the fulfillment of expectations, and satisfaction with the course.

Furthermore, we have trained professionals from the local circuits to combat violence against women in the city of Barcelona, in which basic concepts were covered regarding prevalence and the theoretical explanation of the dual problem, as well as strategies for addressing it in the participating services. These training sessions contributed to the elimination of myths and false beliefs about the relationship between substance use and intimate partner violence, raising awareness of the work done by substance abuse treatment centers in this sector and thus promoting collaboration and coordination between professionals and services from both attention areas.

Study of the prevalence of intimate partner violence in men under treatment for substance abuse

The study Men, Relationships and Health (Gilchrist et al., forthcoming) sought to determine the prevalence of intimate partner violence among men who are receiving treatment in centers for substance abuse treatment in Catalonia and the associated risk factors to corroborate whether the data found on the international level can be applied to our setting.

The research consisted of two phases and used a mixed methodology (qualitative and quantitative), which was divided into a transversal study through questionnaires and some qualitative interviews with male consumers who had perpetrated IPV. 33% of all the substance abuse treatment centers in Catalonia were chosen at random to participate in the study.

The first stage of the study included a questionnaire, consisting of validated questions or scales to measure the perpetration of different types of violence on the one hand, and variables identified as possible risk factors (such as, among others, having witnessed inter-parental violence, having suffered abuse in infancy, having divorced or absent parents, criminal record, rage, personality disorders, consumption of alcohol or drugs, unemployment, beliefs about aggressiveness related with consumption and about masculinity) on the other.

Of the 219 men from 20 substance abuse treatment centers, 34% had perpetrated some type of violence (sexual or physical) against their partner during the last year of their relationship, and 68% had used psychological violence in the last twelve months of the relationship.

Furthermore, the principal risk factors associated with the use of violence against a partner were having experienced the separation of one’s parents during childhood, having suffered physical or sexual abuse before the age of 16, having abused alcohol in the previous year, or being in treatment for cocaine use.

The second, qualitative stage sought to determine the reasons for perpetrating violence against women, through an analysis of what men say about their violence and its causes. Two thematic axes were identified in their

arguments: a) minimizing and using euphemisms to describe the violence perpetrated, and b) various justifications and claims that the violence was an effect of their substance use, their jealousy, a provocation by the partner, and/or negative experiences from childhood.

The following treatment implications are drawn from this study: A) the need for interventions to reduce intimate partner violence and improve couple relations; B) the need to incorporate treatments for intimate partner violence in treatment for substance use disorder; often, substance users are excluded from interventions for perpetrators and victims with drug use problems feel stigmatized in groups of “non-consumer” victims; C) the need to address the problem of “acceptance” of intimate partner violence, on the part of service-givers, as being “the lifestyle” of substance users, and; D) the lack of appropriate staff for dealing with intimate partner violence.

Creation of two guidelines for professionals of the XAD

In order to address the need for specific guidelines and recommendations for professional use, two guides were created, one for addressing intimate partner violence on the individual level, and another for prevention and intervention in group work.

Intimate partner violence and substance use: guidelines for professionals of the XAD

These guidelines (Valls, Geldschläger et al., 2013) were created in order to assist professionals of substance abuse treatment centers when addressing intimate partner violence. The guidelines are structured around detection, intervention, referral, and coordination, and they include chapters on basic concepts on violence, profiles of possible victims and aggressors, and general indications for action in centers. In the section on detection, specific indicators and questions are highlighted regarding intimate partner violence both for women and for men, as well as the importance of exploring the different consumption constellations of the couple (both consume, only the aggressor, or only the victim). The section on intervention distinguishes different situations: a) there is no suspicion of IPV, b) there is suspicion of IPV, but the user does not express it verbally, and c) the user verbally expresses a situation of IPV, indications are made to assess the risk, and a safety plan is prepared for the victim, as well as protection for children and adolescents. Furthermore, the annex contains documents to go more deeply into some theoretical and practical aspects (such as prevention, the judicial area) as well as forms to use during treatment (such as a model for the request for a protection order and a safety plan).

Intimate partner violence and substance use: guide for group work

This guide (Valls, LaFarga, et al., 2013) seeks to prevent the occurrence of intimate partner violence, and to facilitate its early detection within centers. Taking

advantage of the long trajectory of group work in substance abuse treatment centers, it offers activities which can be adapted to the needs of every treatment group for substance users.

The activities are prepared for groups of women, groups of men, and mixed groups, and are divided into three thematic blocks: A) socialization, stereotypes, and gender roles, B) emotions and relationships, and C) violence. For each group dynamic proposed, there are clear guidelines on the objectives of the activity, the materials needed, its duration and level of difficulty, and instructions on how to run the activity, with a file containing the principal material.

The programme for addressing intimate partner violence at the network of substance abuse treatment centers (XAD)

Objectives

The objective of the Programme for addressing intimate partner violence at the Network of Substance Abuse Treatment Centers is to improve the safety of those treated at these centers, which also suffer intimate partner violence. The specific objectives of the programme are:

- To reduce the false beliefs and/or myths surrounding intimate partner violence related with substance use.
- To promote recognition of the dual problem and the specific needs for addressing it.
- To improve detection of possible victims and aggressors of intimate partner violence among the people using the center.
- To promote specific prevention and intervention on intimate partner violence.
- To improve the knowledge and skills of when addressing intimate partner violence in the context of addiction.
- To create informative spaces for discussion and ongoing training, on the subject matter.
- To promote referral to services specialized in intimate partner violence.
- To improve the coordination and collaboration between substance abuse treatment centers and centers for specifically addressing intimate partner violence.
- To detect and reduce difficulties of access to services of the network of attention for intimate partner violence presented by people who use substances.

Who is the program intended for?

The program is aimed principally for:

- Professionals of substance abuse treatment centers.
- Professionals of the services which participate in local circuits against intimate partner violence.

- Other professionals working with to people who consume substances or have problems of intimate partner violence.

Implementation in Catalonia

Between May 2012 and January 2013 a pilot project was carried out at a selected CAS with the objective of evaluating its viability, and detecting and correcting possible difficulties or problems before extending it to the rest of the XAD. This pilot project was carried out at the FontSanta CAS in Cornellà de Llobregat, in close collaboration with the Circuit against sexist violence in St. Joan Despí, one of the municipalities served by the FontSanta CAS.

Implemented actions

The following actions were carried out:

- Joint training of the professionals of the CAS and the Circuit, lasting six hours and consisting of mutual presentation and familiarization of services and professionals, a training session on the correlation between the two phenomena to create a common conceptual base, and joint work on referral of cases and coordination between services.
- Specific training to the whole team of the FontSanta CAS (nine professionals) lasting six hours and focusing on detection and approach to women who are possible victims and men who are possible aggressors, and on case work, while promoting the practical application of the guides.
- Two sessions of feedback and follow-up on the pilot project, one at CAS FontSanta and the other at the St. Joan Despí Circuit against sexist violence.

Evaluation of the project

The project was evaluated using a mixed quantitative and qualitative methodology and pre-post design of A) the results of the implementation, which includes a pre-post comparison of indicators relevant to the objectives of the programme and B) the process of implementation which includes the evaluation of the actions carried out by the people participating, professionals of the FontSanta CAS and of the services participating in the St. Joan Despí Circuit against sexist violence.

Interviews were carried out both before and after the pilot project:

- With the FontSanta CAS team about their knowledge of and their professional praxis regarding detection, intervention, and referral to intimate partner violence services and, in the post-test, about changes and assessments of the project.
- With professionals from services of attention for male gender violence about referrals and coordination with the CAS, as well as about their knowledge of and professional praxis related to cases with problematic consumption of alcohol or other drugs. The questions were identical or complementary to those of the interviews with CAS professionals.

- With users of the CAS, in convenience samples which approached a representative distribution according to the drug for which they were admitted and their sex, about the actions of the professionals on intimate partner violence.

Files and clinical histories of CAS users were selected according to a representative distribution by drug for which they were admitted and their sex, and analyzed qualitatively and quantitatively with regard to records of detections, interventions, referrals, and co-ordinations in cases of intimate partner violence.

Annual reports and statistics were analyzed, not only from domestic violence services (on the referrals and co-ordinations with the CAS as well as the detection of cases with substance use) but also from the CAS (on detections, interventions, referrals and co-ordinations in cases of intimate partner violence).

The results indicate improvements, although not statistically significant, A) in the detection of IPV and referrals by professionals of the CAS (according to the interviews with service users and analysis of files) and B) in the evaluation that the professionals make in the interviews regarding their knowledge and actions. In the CAS more questions are asked about IPV and more IPV is detected in women users than in men, and significant changes have occurred in the way that violence is recorded in the files of the CAS, reducing the number of unclear records or those that implied a justification of the violence and increasing the number of explicit records which define the problem as IPV and the records which state that IPV has been asked about but not detected.

Moreover, the professionals provided a positive evaluation of the project, particularly of training in the CAS, the exchange between services and professionals from both ambits, and the materials created. They also highlight the importance of having tools of detection and having continuity in the support and counselling of the program in the form of training and clinical sessions and supervisions, for example. One of the most significant results is the fact that the professionals from the circuit against sexist violence also asked to have specific training and materials on addressing drug use in their services.

Next steps

We propose the progressive roll-out of this program to all of Catalonia's Substance abuse Treatment Network by means of, among other things, the identification of a professional of reference in each unit of the XAD. In this way, the person of reference in each unit will receive specific training in order to be able to pass on the information and train his or her team, will participate in the corresponding circuit against sexist violence, and will receive continued support and counselling from the program.

The Programme for addressing intimate partner violence at the Network of Substance Abuse Treatment Centers will offer:

- Support for coordination and networking between the XAD and the circuits of attention for violence through joint training actions.
- Specific training sessions that will enable the persons of reference in the units of the XAD to transmit to their teams the expertise to address

- intimate partner violence, making the materials developed available for use.
- Continued counselling and support for persons of reference both in the management of incidents and to improve coordination.
 - Occasional clinical sessions or supervision of cases to deal with incidents or difficulties, such as addressing aggressors.
 - A virtual space for exchange, consultation, and up to date information.
 - Materials and action guides.
 - A tool to detect intimate partner violence for the whole XAD.
 - Inclusion of the programme activities in the contract of the services of the XAD.
 - An up to date list of resources for addressing sexist violence throughout Catalonia.

In addition to identifying a person of reference in the program, the participating units of the XAD will commit themselves to creating an organizational and work context of support in order to promote the approach (detection, prevention, intervention) and the registering of intimate partner violence, as well as referral and co-ordination with specialist services and evaluation of actions.

The next step will be to analyse the present situation and to identify the different needs of each resource in the territory, by means of the evaluation of the charter of services and interviews with the coordinators of the CAS and the territorial circuits against sexist violence. Furthermore, both the introduction of a unified instrument to detect intimate partner violence at the XAD and the development of prevention materials will be agreed upon through a consensus process. Finally, the interdepartmental coordination has to guarantee the coordinated rollout in the territory, both in the circuits against male gender violence and in other health services.

Conclusions

From the experience accumulated in the Programme to address intimate partner violence in the XAD we can extract the following conclusions and recommendations to achieve sustained improvements in the prevention of and approach to this dual problem:

- The collaboration of specialists on substance abuse and on intimate partner violence at every phase and level of the program (constitution of the working group, institutional cooperation, creation of guide, training of professionals, implementation) is fundamental to design specific actions and materials which are useful in practice.
- Corroborating the empirical data from international studies in the local context helps to convince both the professionals in the centers and those responsible at the institutional level of the need for a specific program.
- Basing the actions of the program on a survey on current practices and needs in substance abuse treatment centers promotes its practical usefulness and the involvement of the centers in the project.

- Presenting a complex and processual model of the dual problem avoids simplistic causal interpretations, destroys myths, and creates the conceptual base for interventions adapted to the complexity of the phenomenon and for collaboration between services and professionals from both fields of attention.
- Bearing in mind and addressing the specific contexts of substance abuse when creating guides and training sessions for addressing intimate partner violence enables their acceptance and application on the part of the professionals. Specifically, it is necessary to give tools for addressing violence with men, who represent the vast majority of the people in substance abuse treatment centers (Fernández-Montalvo et al., 2011), since in the general protocols for health services the corresponding indications or tools are scarce (Kimberg, 2008). Moreover, specific profiles, indicators, and procedures must be provided for the detection of violence suffered by women substance users, to overcome their double stigmatization.
- A specific training for professionals working in substance abuse, to transmit the expertise and skills for addressing intimate partner violence, is necessary (Timko et al., 2012), but not sufficient for achieving a sustained change in treatment practice. Measures that promote changes at the organizational or system level, such as the implementation of a consensual tool of detection and recording, are also necessary (Kunins et al., 2007), creating a favorable working environment and improving the professionals' confidence when faced with this dual problem (Anderson et al., 2003).
- To achieve improvements in the referral, coordination, and collaboration between the two ambits, as well as providing a common conceptual framework, it is essential to promote case work, and as much as possible, joint planning of treatment (Macy & Goodbourn, 2012).

Besides the progressive implementation of the program throughout Catalonia, the main challenges we may face in the future are as follows:

- To create specific guidelines on addressing problematic substance abuse and tools for detecting and recording it in treatment services for intimate partner violence and to update the corresponding training for professionals.
- To identify and reduce the barriers to treatment services for intimate partner violence, which are still encountered by people who are substance users, both victims and aggressors.
- Going beyond coordinated and parallel responses to the dual problem, to create services that give an integrated response to female substance users who suffer intimate partner violence and to male substance users who practice it (Timko et al., 2012).

Acknowledgements

For their collaboration, feedback and contributions we would like to thank all of the people and entities who have participated in the working group on drugs and violence, the authors of the materials and documents created, all of the people who have participated in the various training activities, the centers which participated in the survey, the FontSanta CAS and the St Joan de Despí circuit against sexist violence for their participation in the pilot program and the users of the FontSanta CAS who participated in the evaluation study. Special thanks also to the entities collaborating with the Programme during this time: the Fundació Institut de Reinserció Social, the Fundació Salut i Comunitat, the Institut Hospital del Mar d'Investigacions Mèdiques and the Associació Conexus.

References

- Anderson, P., Kaner, E., Wutzke, S., Wensing, M., Grol, R., Heather, N. & Saunders, J.** (2003). Attitudes and management of alcohol problems in general practice: descriptive analysis based on findings of a WHO international Collaborative Survey. *Alcohol and Alcoholism*, 38, 597-601.
- Arciero, G.** (2004). Estudios y diálogos sobre la identidad personal: Reflexiones sobre la experiencia humana. Las Palmas: Ilustre Colegio Oficial de Psicólogos de las Palmas de Gran Canaria.
- Babcock, J. C., Jacobson, N. S., Gottman, J. M. & Yerington, T. P.** (2000). Attachment, emotional regulation, and the function of marital violence: Differences between secure, preoccupied and dismissing violent and non-violent husbands. *Journal of Family Violence*, 15, 391-409.
- Bennett, L. & Williams, O.** (2003). Substance abuse and men who batter: issues in theory and practice. *Violence Against Women*, 9, 558-575.
- Boles, S. M. & Miotto, K.** (2003). Substance abuse and violence: a review of the literature. *Aggression and Violent Behavior*, 8, 155-174.
- Bowlby, J.** (1984). Violence in the family as disorder of the attachment and care-giving system. *American Journal of Psychoanalysis*, 44, 9-27.
- Brown, T.; Caplan, T.; Werk, A. & Seraganian, P.** (1998). The incidence and characteristics of violent men in substance abuse treatment. *Addictive Behaviours*, 23, 573-586.
- Centro de Investigaciones Sociológicas** (2001). Estudio no. 2.425: Percepción social de las drogas en la comunidad de Madrid.
- Centro de Investigaciones Sociológicas** (2005). Estudio no. 2.597: Barómetro de marzo.
- Chermack, S. T. & Giancola, P. R.** (1997). The relation between alcohol and aggression: an integrated biopsychosocial conceptualization. *Clinical Psychology Review*, 17, 621-649.
- Crittenden, P. M. & Claussen, A. H.** (2002). Perspectivas de la psicopatología evolutiva sobre el abuso de sustancias y la violencia en las relaciones. A: Nueva simplicaciones clínicas de la teoría del apego. València: Promolibro.
- Crittenden, P. M.** (2000). Moldear la arcilla: El proceso de construcción del self y su relación con la psicoterapia. *Revista de psicoterapia*, 11, 67-82.
- Departament de Salut** (2009). Protocol per al'abordatge de la violènciamasclista en l'àmbit de la salut a Catalunya. Document marc. Barcelona: Departament de Salut, Direcció General de Planificació i Avaluació.
- Departament de Salut** (2010). Protocol per al'abordatge de la violènciamasclista en l'àmbit de la salut a Catalunya. Dossier 4: Document operatiu de drogo dependències. Barcelona: Departament de Salut, Direcció General de Planificació i Avaluació.
- Exum, M. L.** (2006). Alcohol and aggression: an integration of findings from experimental studies. *Journal of Criminal Justice*, 34, 131-145.

Fals-Stewart, W. & Kennedy, C. (2005). Addressing intimate partner violence in substance-abuse treatment. *Journal of Substance Abuse Treatment*, 29, 5-17.

Fergusson, D. M. & Horwood, L. J. (1998) Exposure to interparental violence in childhood and psychosocial adjustment in young adulthood. *Child Abuse and Neglect*, 22, 339-357.

Fernández-Montalvo, J., López-Goñi, J. J. y Arteaga, A. (2011). Tratamiento de agresores contra la pareja en programas de atención a drogodependientes: un reto de futuro. *Adicciones*, 23, 5-9.

Finney, A. (2004). Alcohol and intimate partner violence: key findings from the research. *Findings*, 216, 1-6.

Fonagy, P. (2001). The psychoanalysis of violence. Paper presented to the Dallas Society for Psychoanalysis Psychotherapy, March 15, 2001.

Foran, H. M. & O'Leary, K. D. (2008). Alcohol and intimate partner violence: a meta-analytic review. *Clinical Psychology Review*, 28, 1222 – 1234.

Fox, A. (2008) Sociocultural factors that foster or inhibit alcohol-related violence. A: International Center for Alcohol Policies (Ed.), *Alcohol and Violence: Exploring Patterns and Responses* (pp. 1-28). Washington: International Center for Alcohol Policies.

Galvani, S. (2004). Responsable Desinhibition: Alcohol, men and violence to women. *Addiction Research and Theory*, 12, 357-371.

George, D. T., Rawlings, R. R., Williams, W. A., Phillips, M. J., Fong, G., Kerich, M., Momenan, R., Umhau, J. C. & Hommer, D. (2004). A select group of perpetrators of domestic violence: evidence of decreased metabolism in the right hypothalamus and reduced relationships between cortical/sub-cortical brain structures in position emission tomography. *Psychiatry Research*, 130, 11-25.

Giancola, P. R. (2007). The underlying role of aggressivity in the relation between executive functioning and alcohol consumption. *Addictive Behaviors*, 32, 765-783.

Gilchrist, G., Blazquez, A. & Torrens, M. (2013). Homes, relacions i salut. Barcelona: Agència de Salut Pública de Catalunya, Subdirecció General de Drogodependències.

Gilchrist, G., Blazquez, A., Segura, L., Geldschläger, H., Valls, E., Colom, J. & Torrens, M. (in press). Factors associated with physical or sexual intimate partner violence perpetration among males in substance abuse treatment in Catalunya: a mixed methods study. *Journal of Interpersonal Violence*, submitted for publication.

Gil-González, D., Vives-Cases, C., Álvarez-Dardet, C. & Latour-Pérez, J. (2006). Alcohol and intimate partner violence: do we have enough information to act? *European Journal of Public Health*, 16, 278-284.

Gondolf, E. W. (2002). *Batterer Intervention Systems*. Thousand Oaks, CA: Sage.

Gual, A., Segura, L., Montserrat, O. & Colom, J. (2006). Catalonia. En N. Heather (Ed). *Development of Country-Wide Strategies for Implementing Early Identification and Brief Intervention in Primary Health Care* (p. 51-62). Geneva: WHO.

Guidano, V. F. (1991). *El sí mismo en proceso: Hacia una terapia cognitiva posracionalista*. Barcelona: Paidós.

Hiese, L. (1998) Violence Against Women: An Integrated, Ecological Framework. *Violence Against Women*, 4(3), 262-290.

Institut Català de les Dones (2008). Pla de Polítiques de Dones del Govern de la Generalitat de Catalunya 2008-2011. Barcelona: Institut Català de les Dones.

Institut Català de les Dones (2009). Protocol Marc per a una intervenció coordinada contra la violència masclista. Barcelona: Institut Català de les Dones.

Institut Català de les Dones (2013). Pla estratègic de polítiques de dones del Govern de la Generalitat de Catalunya 2012-2015. Barcelona: Institut Català de les Dones.

Irons, R. & Schneider, J. P. (1997). When is domestic violence a hidden face of addiction? *Journal of Psychoactive Drugs*, 29, 337-344.

Jou, J., Valls, E. & Segura, L. (2008). Resultats del qüestionari sobre violència contra la parella i en l'àmbit familiar en centres de la XAD. Informe no publicat. Barcelona: Subdirecció General de Drogodependències, Generalitat de Catalunya.

Kaufman Kantor, G. & Straus, M. (1990). The "drunken bum" theory of wife beating. A: M. A. Straus & R. J. Gelles (Eds.). *Physical violence in American families: Risk factors and adaptations to violence in 8.145 families* (pp. 203-224). New Brunswick, NJ: Transaction.

Kimberg, L. (2008). Addressing intimate partner violence with male patients: a review and introduction of pilot guidelines. *Journal of General Internal Medicine*, 23, 2071-2078.

Klostermann, K. C. & Fals-Stewart, W. (2006). Intimate partner violence and alcohol use: exploring the role of drinking in partner violence and its implications for intervention. *Aggression and Violent Behavior*, 11, 587-597.

Krug, E. G., Dahlberg, L. L., Mercy, J. A., Zwi, A. B. & Lozano, R. (eds.) (2002). *World report on violence and health*. Geneva: World Health Organization.

Kunins, H., Gilbert, L., Whyte-Etere, A., Meissner, P., & Zachary, M. (2007). Substance abuse treatment staff perceptions of intimate partner victimization among female clients. *Journal of Psychoactive Drugs*, 39, 251-257.

Leonard K. (2001). Domestic Violence and alcohol: what is known and what do we need to know to encourage environmental interventions. *Journal of Substance Use*, 6, 235-247.

Leonard, K. E. (2002) Alcohol's role in domestic violence: a contributing cause or an excuse. *Acta Psychiatrica Scandinavica* 106, 412, 9 - 14.

Llei 5/2008, de 24 d'abril, del dret de les dones a eradicar la violència masclista. Diari Oficial de la Generalitat de Catalunya Núm. 5123.

Macy, R. C. & Goodbourn, M. (2012). Promoting Successful Collaborations Between Domestic Violence and Substance Abuse Treatment Service Sectors: A Review of the Literature. *Trauma, Violence and Abuse*, 13, 234-251.

Mahoney, M. J. (1991). *Human Change Processes*. New York: Basic Books.

Moore, T. M. & Stuart, G. L. (2004). Illicit substance use and intimate partner violence among men in batterers' intervention. *Psychology of Addictive Behaviors*, 18, 385-389.

Moore, T. M., Stuart, G. L., Meehan, J. C., Rhatigan, D. L., Hellmuth, J. C. & Keen, S. M. (2008). Drug abuse and aggression between intimate partners: A meta-analytic review. *Clinical Psychology Review*, 28, 247 - 274.

Murphy, C. M. & O'Farrell, T.J., Fals-Stewart, W. & Feehan, M. (2001). Correlates of intimate partner violence among male alcoholic patients. *Journal of Consulting and Clinical Psychology*, 69, 528-540.

Pihl, R. O., Assaad, J. M. & Hoaken, P. N. S. (2003). The alcohol-aggression relationship and differential sensitivity to alcohol. *Aggressive Behavior*, 29, 302-315.

Ponce, A., Geldschläger, H., Ginés, O. & Plaza, M. (2013). Violència contra la parella i consum de substàncies: Revisió i model integrador. Barcelona: Agència de Salut Pública de Catalunya, Subdirecció General de Drogodependències.

Sánchez, L., Navarro, J. & Valderrama, J. C. (2004). Estudio Internacional sobre Género, Alcohol y Cultura: "Proyecto GENACIS". Alicante: Sociedad Española de Toxicomanias.

Stith, S. M., Smith, D. B., Penn, C. E. Ward, D. B. & Tritt, D. (2004). Intimate partner physical abuse perpetration and victimization risk factors: a meta-analytic review. *Aggression and Violent Behavior*, 10, 65- 98.

Temple, J. R., Stuart, G. L. & O'Farrell, T. J. (2009). Prevention of intimate partner violence in substance-using populations. *Substance Use & Misuse*, 44, 1318-1328.

Timko, C., Valenstein, H., Lin, P. Y., Moos, R. H., Stuart, G. L. & Cronkite, R. C. (2012). Addressing substance abuse and violence in substance use disorder treatment and batterer intervention programs. *Substance Abuse Treatment, Prevention, and Policy*. 7:37.

Valls, E., Geldschläger, H. & LaFarga, S. (2013). Violència contra la parella i consum de substàncies: Guia per a professionals de la XAD. Barcelona: Agència de Salut Pública de Catalunya, Subdirecció General de Drogodependències.

Valls, E., LaFarga, S., Ginés, O., Ponce, A. & Geldschläger, H. (2013). Violència contra la parella i consum de substàncies: Guia per al treball grupal. Barcelona: Agència de Salut Pública de Catalunya, Subdirecció General de Drogodependències.

White, H. R., & Widom, C. S. (2003). Intimate partner violence among abused and neglected children in young adulthood: the mediating effects of early aggression, antisocial personality, hostility, and alcohol problems. *Aggressive Behavior*, 29, 332-345.

WHO European Centre for Environment and Health (2005). Alcohol and Interpersonal Violence: Policy Briefing. Roma: WHO European Centre for Environment and Health.

Zubretsky, T.; Digirolamo, C., (1996) The false connection between adult domestic violence and alcohol. *Violence update*, 4, 1-8.

Chapter III

Gender Responsive treatment approaches for women with substance use disorders

Christine E. Grella

UCLA Integrated Substance Abuse Programs, Semel Institute for Neuroscience and Human Behavior, Los Angeles, (CA) USA

Gender has an important influence on the development and progression of substance use disorders, pathways that individuals take to treatment, clinical profile and treatment needs of patients, and the outcomes of their treatment participation. In the past two decades, traditional approaches to substance abuse treatment have been modified to take account of gender differences, particularly the higher severity profile of substance-abusing women, their exposure to abuse and trauma, and their needs for services related to parenting, employment, and mental and physical health problems. A growing body of research has examined these gender-specific treatment programs and approaches, and evidence-based interventions have been developed, or modified, to specifically address treatment for women. This chapter provides a review of how gender influences treatment utilization, needs, and outcomes of women with substance use disorders; research on the characteristics of gender-specific treatment programs for women and the outcomes of women treated in these programs; specific issues pertaining to substance-abusing women in the criminal justice system; and current evidence-based treatments that have been developed for treating women with substance use disorders.

Treatment access and utilization among women with substance use disorders

The pathways into substance abuse treatment for men and women are strongly differentiated based on an individual's economic, employment, and parental status, which may serve as barriers or facilitators of treatment utilization. In the United States, a much higher proportion of men than women are referred into treatment through the criminal justice system (40% vs. 28%), whereas about twice as many women access treatment by referral from other community agencies (e.g., welfare, child welfare, health care providers; 15% vs. 6%; Office of Applied Studies [OAS], 2006). Studies have shown that women are more likely than men to enter treatment via the mental health and child welfare systems, whereas men are more likely to enter treatment through the criminal justice system (Schmidt & Weisner, 1995). Similarly, there are differences between men and women in their sources of payment for treatment, with a greater proportion

of men reporting self-pay (26% vs. 18%) and a relatively greater proportion of women being dependent upon public insurance to pay for treatment (26% vs. 12%; OAS, 2006).

Moreover, men and women may view their substance use differently, in ways that either hinder or facilitate their treatment entry. In a study of 50 alcoholics in outpatient treatment, half of whom were women, the women frequently failed to identify their drinking as problematic and were averse to being labeled as "alcoholic" (Thom, 1986). They minimized the harmfulness of their drinking and emphasized that their drinking had not impaired their ability to fulfill their roles as wives and mothers. In fact, for many women, drinking with their spouses was integral to their marital relationships, and their spouses contributed to defining their drinking as non-problematic. In contrast, nearly all of the men in the study who were living with a spouse or partner reported that they had been encouraged or supported by that person to enter treatment (Thom, 1987). Similarly, another study showed that more negative social consequences related to drinking, such as traffic accidents, arrests, and family-, legal-, and work-related problems, were associated with treatment entry among men, but not among women; however, employment and prior treatment history were related to treatment entry for both men and women (Weisner, 1993).

There are similar findings with respect to individuals with drug use disorders. A study of couples in methadone treatment in the 1980s showed that patterns of drug use and decisions to enter treatment were often jointly made (Anglin, Kao, Harlow, Peters, & Booth, 1987). Other research has shown that a greater adherence to traditional gender roles among men in methadone treatment is positively related to psychological dominance and "couple drug involvement," which in turn is associated with their perpetration of intimate partner violence (El Bassel et al., 2004). Substance-abusing men who were in relationships with women who also used illicit drugs were more than twice as likely as men in relationships with non-using partners to perpetrate intimate partner violence, and nearly four times as likely to perpetrate "severe" forms of violence (El-Bassel, Gilbert, Wu, Chang, & Fontdevila, 2007). This effect may be exacerbated among pregnant women who are in abusive relationships. One study showed that, among pregnant women in substance abuse treatment, those who were in abusive relationships were more likely to have partners who also used alcohol and drugs, had more severe alcohol and family/social problems, and had higher rates of psychiatric problems and comorbidity compared to those who were not in abusive relationships (Tuten, Jones, Tran, Svikis, 2004). Hence, the threat of intimate partner violence may limit women's ability to enter and stay in treatment if drug use is embedded within the relationship (Tuten & Jones, 2003).

A study conducted with individuals in drug treatment demonstrates the contrary influences of marital relationships and social stigma on treatment participation for men and women. Using data from a national multi-site treatment outcome study in the United States, Grella and Joshi (1999) examined the factors associated with having a history of substance abuse treatment among individuals who were sampled from residential, outpatient, hospital inpatient, and methadone maintenance programs. More severe drug use history and

greater involvement in criminal behavior were related to treatment participation for both men and women. Yet, among men, prior drug treatment was associated with higher levels of family opposition to their drug use and more support for their treatment participation. Men were more likely to have been referred to prior treatment by their family, an employer, or the criminal justice system. In contrast, treatment participation for women was associated with having been referred by a social worker, having a diagnosis of antisocial personality disorder, having engaged in sex work, and having initiated treatment. Hence, the factors that facilitate or inhibit treatment participation for men and women are highly variable.

Given the greater centrality of their role as caregivers for children, the potential effects of women's treatment participation (or non-participation) on their relationships with children may have a central influence on their decisions whether or not to enter treatment. Several studies have shown that most women entering into substance abuse treatment are mothers of dependent children, and at least half have had contact with child welfare (Connors et al., 2004; Grella, Scott, Foss, Joshi, & Hser, 2003). However, less than half of mothers entering treatment are living with all of their children, and up to one third have lost their parental rights to at least one child (Knight & Wallace, 2003; Schilling, Mares, & El-Bassel, 2004; Tracy & Martin, 2007). Mothers involved with the child welfare system have been shown to be younger, to have a history of physical abuse, and to have fewer economic resources than other mothers in treatment (Grella, Hser, & Huang, 2006). One study showed that mothers, who were injecting drug users, were more likely to enter into methadone maintenance treatment (versus other forms of treatment) if they were living with their children, compared with mothers who did not reside with their children (Lundgren, Schilling, Fitzgerald, Davis, & Amodeo, 2003). Mothers entering into methadone maintenance were also more likely to be employed and stably housed compared with others, underscoring the importance of economic resources for their ability to participate in treatment.

The influence of children on parental substance use and mothers' motivation for and participation in treatment is complex (Collins, Grella, & Hser, 2003). Children (and pregnancy) may impede treatment participation if women fear it will jeopardize their custody of their children (Haller, Miles, & Dawson, 2003). This was evident in a study in which involvement with child welfare was negatively associated with treatment motivation among mothers (Wilke, Kamata, & Cash, 2005). The authors suggested that the negative influence of child-welfare involvement on treatment motivation reflects the practical or emotional issues associated with having to leave children with other caregivers, as well as the fear of losing custody of their children. Similarly, another study found that among mothers who were opiate users, greater parenting responsibility, defined as number of children, was inversely related to number of treatment episodes, although this relationship was moderated by ethnicity and relationship status (McMahon, Winkel, Suchman & Luthar, 2002). However, among incarcerated women, child-welfare involvement has been associated with higher motivation to enter treatment, suggesting that treatment participation may be critical to reunification with their children (Grella & Rodriguez, 2011).

Logistical issues and access to resources also facilitate or inhibit treatment participation among women. In a study of cocaine-dependent, criminally involved women both in and not in treatment, Saum, Hiller, Leigey, Inciardi, & Surratt (2007) showed that enabling factors, such as being legally employed, having health insurance, having custody of children, and knowing where to go to get treatment, appeared to be the most influential predictors of treatment participation (as compared with predisposing and service need factors). In a study of individuals seeking publicly funded treatment in Washington State, women were found to spend longer on a wait list for treatment and to be less likely to eventually enter treatment compared with men (Downey, Rosengren, & Donovan, 2003). The authors noted that pregnant women, who were given priority for admission to treatment, were excluded from the analyses; hence, women who were not pregnant may have had longer wait times stemming from the remaining limited capacity of inpatient and residential beds for women. They further surmised that women postpone treatment entry due to lack of childcare arrangements, thus prolonging their time on the wait list.

A qualitative study conducted in Australia examined barriers to treatment participation among 32 women who sustained recovery for more than one year without participation in either treatment or self-help groups (Copeland, 1997). The sample identified the following barriers to treatment: social stigma and labeling, lack of awareness of the range of treatment options, concerns about childcare, the economic and time costs of residential treatment, concerns about the confrontational approaches that were pervasive in traditional substance abuse treatment, as well as stereotyped perceptions of treatment services (e.g., the “religious” nature of 12-step groups). Moreover, several studies have shown that women with co-occurring mental disorders and/or who are homeless may be reluctant to enter into treatment because of their greater vulnerability, which is often related to histories of trauma and victimization (Padgett, Hawkins, Abrams, & Davis, 2006; Watkins, Shaner, & Sullivan, 1999). A recent study conducted with national survey data showed that among individuals with alcohol or drug dependence disorders, women were less likely to seek treatment or other services for their disorders than men. However, women who had sought help were more likely to have multiple substance dependencies, comorbid mental health problems, and lower rates of employment compared with female substance users who had not sought treatment (Grella & Stein, 2013). Thus, although generally women are less likely to seek treatment for substance use problems, and they often encounter several barriers in doing so, those who do enter treatment tend to have greater problem severity.

Treatment needs of women with substance use disorders

Research from epidemiological and clinical studies has consistently shown that women progress from alcohol or drug use initiation to dependence more quickly than men do, a phenomenon that may arise from underlying sex differences in the neurobiology of addiction (Elton & Kilts, 2009). Women also

tend to enter substance use disorder treatment after fewer years of substance use, but arrive to treatment with a more severe clinical profile compared to men. In particular, women report greater psychological distress and mental health problems, most often mood and anxiety disorders; more interpersonal conflicts with family and family-related needs, particularly issues related to parenting; greater exposure to childhood and adult trauma and victimization and associated trauma symptoms; and more problems related to lack of employment vocational skills, and economic resources (Wechsberg, Craddock & Hubbard 1998; Stewart et al. 2003; McKay et al. 2003; Chatham et al. 1999; Brady et al. 1993).

Consistent with this clinical profile, women in substance abuse treatment have lower quality of life as compared with women in the general population, particularly related to their history of trauma and lack of recovery support from friends and others (Tracy et al., 2012). Women substance abusers also have higher rates of sexual risk behaviors than men, particularly among women with greater alcohol use and psychiatric severity, which puts them at higher risk of contracting HIV (Brooks et al., 2010). As previously noted, women are more likely to be adversely affected by their spouse or partner's substance use, including a greater likelihood of victimization, injury, mood and anxiety disorders, physical health problems, and overall poorer quality of life (Dawson et al. 2007). Thus, relationship issues, and the role of substance use within the relationship dynamic, are central issues for women's treatment and recovery.

Moreover, there are significant differences in the treatment needs of women by age, ethnicity, sexual orientation, culture and religious orientation, and parental status. In one study of women opiate users who were seeking methadone treatment, four clusters were identified that were characterized by different areas of problem severity: unemployment, medical illness, psychiatric distress, and higher social functioning (McMahon & Luthar, 2000). African American women were over represented in the group defined primarily by poor vocational-education history, whereas white women were over represented in the group that had high psychiatric distress as well as in the higher-functioning group. Among a study of women in the criminal justice system, white women reported the highest needs for family- and psychological-related services, whereas African American women expressed higher needs for health-related services (Grella & Greenwell, 2007). Other studies have shown that experiences of socio-economic disadvantage, exposure to community violence, criminal justice system interactions, and access to resources among women vary by ethnicity and influence perceptions of treatment needs and coping behaviors (Amaro et al., 2005, 2007).

Older women are particularly at risk of depression and misuse of alcohol and/or prescription medications given their generally higher rates of prescription medication use and their risks of social isolation and chronic health problems (Simoni-Wastila, Ritter, & Strickler, 2004; Simoni-Wastila & Yang, 2006). Among older adults with a history of heroin dependence, women report more mental and physical health problems compared to their male counterparts, and more severe mental health problems than women of comparable age in the general population (Grella & Lovinger, 2011). Thus, treatment approaches for women need to be tailored to address heterogeneity among women, particularly related to age, parenting status, cultural background, and socio-economic resources.

Substance abuse treatment processes and outcomes for women

Treatment processes and outcomes appear to be influenced by gender in complex ways (Green, 2006). Among patients treated in a health maintenance setting, Green et al. (2002) found that although time spent in treatment and rates of treatment completion did not differ by gender, treatment retention and completion for both men and women were associated with different participant characteristics. An extensive review of the literature by Greenfield and colleagues (2007) found that gender itself is not a significant predictor of treatment retention, completion, or outcomes, but different factors may predict outcomes for men and women. The authors concluded that psychological distress and psychiatric symptoms; socioeconomic status, such as higher income, employment, and educational attainment; social support; and personal and social stability are all associated with treatment retention and substance use outcomes, although relationships vary by gender.

Similarly, in an experimental study of participants in therapeutic community programs, Messina, Wish, and Nemes (2000) found that for both men and women treatment completion was the strongest predictor of improved drug use, employment, and criminal justice outcomes, although women benefited from longer time in treatment. Access to services also appears to differentially influence outcomes for men and women. In a multi-site national study that examined the relationship of services received to outcomes, the receipt of educational, housing, and income support services was related to reduced post treatment substance abuse for both women and men; however, receipt of mental health services was more closely related to reductions in post treatment substance use for women than for men (Marsh, Cao, & D'Aunno, 2004).

Studies have shown few gender differences in rates of post treatment relapse to alcohol use, although the evidence is mixed in regard to relapse to drug use. There are gender differences, however, in the situations or conditions that are associated with relapse to substance use. For males, these include living alone, positive affect, and social pressures, whereas for females, relapse has been associated with not living with one's children, being depressed, having a stressful marriage, and being pressured to use by their sexual partners (Zywiak et al., 2006; Walitzer & Dearing, 2006; Saunders et al., 1993; Rubin, Stout & Longabaugh, 1996). In addition, some research has shown that women tend to engage more than men in self-help participation following treatment (Humphreys, Mavis & Stofflemyr, 1991) and in successive treatment episodes (Hser et al., 2004), both of which may influence the course of recovery following treatment.

Gender differences in longitudinal recovery outcomes

More in-depth information on how gender influences the dynamic course of substance use, treatment participation, and recovery outcomes is obtained from longitudinal studies. In one longitudinal study of a Chicago-based treatment sample, men and women did not differ in the prevalence of substance use reported at a 24-month follow-up, but there was more persistent use of alcohol and marijuana among men and use of cocaine among women (Grella et al., 2003). Moreover, women were more likely to return to treatment over time, whereas men were more likely to return to prison. For women, living with a substance user following treatment predicted a greater likelihood of their own substance use at 24 months, but this relationship was not significant among men.

According to a 36-month assessment conducted with this same study cohort, there were no differences between men and women in the proportion who reported any alcohol or drug use; however, there were persistent gender differences in several areas of psychosocial functioning, including greater psychological distress among women and greater criminal justice involvement among men (Grella, Scott & Foss, 2005). Women continued to have lower rates of employment and to report more interpersonal problems than men, but they had greater increases in self-help participation. Another study conducted with this cohort examined transitions across various recovery statuses (e.g., abstinent, using, treatment) for up to 6 years. In multivariate models controlling for other characteristics, women were one-third less likely than men to transition from recovery to using over this time. Moreover, self-help participation was a stronger predictor of transitioning from using to recovery (or, conversely, of remaining in recovery) for women (Grella et al., 2008). In contrast, having an external mandate was a much more powerful factor influencing treatment re-entry among men; there was a 12-fold greater likelihood of moving from using to treatment for men who were mandated to treatment compared with women. Another transition-based analysis, conducted with a sample of individuals who received treatment for cocaine use over a 6-month period, showed that men were twice as likely as women to transition across statuses, either from using to abstinent or vice versa, controlling for level of treatment received over the interval (Gallop et al., 2007).

Similar findings have been obtained in a longitudinal study of individuals who sought help for alcohol problems. This study found that women were more likely than men to participate in self-help groups and to have greater reductions in drinking associated with their self-help participation over an 8-year follow-up period (Timko, Finney & Moos, 2005; Timko et al., 2002). Moreover, these findings have endured over a 16-year follow-up period (Moos, Moos & Timko, 2006). Another longitudinal follow-up study compared outcomes following treatment among older adults (aged 55 and over) sampled from a managed care provider. At the 5-year follow-up point, women had higher rates of abstinence compared with men, and older women had better outcomes compared with younger women (Satre et al., 2004). At the 7-year follow-up point, older women were about twice as likely as older men to be abstinent; however, duration in the index treatment episode was the strongest predictor of outcomes for both (Satre et al., 2007).

Taken together, these studies suggest that the course of recovery for men and women may be mediated through their differential interactions with treatment, criminal justice, and 12-step groups, and the social influences on their substance use. Women appear to sustain better outcomes over time, related to their initial treatment participation and ongoing 12-step participation. Continuing care interventions for substance use disorders can build upon these findings regarding gender dynamics that influence recovery trajectories in order to develop more tailored interventions for both men and women.

Gender-specific treatment programs for women with substance use disorders

Gender-specific treatment services for women have increased in the past several decades, but still remain far from universal (Grella & Greenwell, 2004). Data from the 2011 National Survey of Substance Abuse Treatment Services (N-SSATS), an annual census of facilities providing substance abuse treatment in the United States, shows that close to one-third (31.5%) of facilities that provide substance abuse treatment in the United States provide treatment programs or groups specifically designed for women (Substance Abuse and Mental Health Services Administration [SAMHSA], 2012). Moreover, the rates are somewhat higher when examined only for specialty addiction providers (34.7%), as compared with providers of mental health services, combined mental health and substance abuse treatment services, or general health care services. Facilities that are funded by local, county, or community government or state also have higher rates of offering special programs or groups for women 39.9% and 42.5% respectively (SAMHSA, 2012).

Studies have shown that treatment facilities that provide services to women only, or in which there is a higher concentration of women, typically provide a wider range of services designed to meet women's specific treatment needs (Uziel-Miller & Lyons, 2000; Grella et al., 1999). Similar findings have been shown for treatment programs that receive a majority of their funding from private (i.e. non-governmental) sources. Private-sector programs in which women were the majority of patients were more likely than programs with fewer women to provide child care, have family involvement in treatment, provide treatment for psychiatric disorders, employ counselors with master's level degrees, receive referrals from mental health sources and fewer workplace referrals, and accept payment through public insurance (Tinney et al., 2004).

Another survey of outpatient substance abuse treatment programs examined the organizational factors related to the provision of women's health services, such as gynecological exams, reproductive services, and prenatal services. Programs providing these services were more likely to receive funding earmarked for women's treatment, to be methadone providers, to have a greater proportion of staff who were specifically trained in women's treatment issues, and to be private not-for-profit and public units, rather than for-profit (Campbell & Alexander, 2005). A study using data from the National Treatment Center Study, a national survey of public and privately funded treatment programs, found

that fewer than half of the publicly funded programs screened for or provided referrals for eating disorders, and few programs actually provided on-site treatment for these disorders (Gordon et al., 2008). About one-fifth of privately funded programs provided treatment for eating disorders (Killeen et al., 2011). Overall, rates of screening, referral, and treatment for these disorders were low, given the prevalence of eating disorders among women with substance use disorders.

A study using N-SSATS data from 2000 showed that programs providing “special services” for women (e.g., a women-specific program, group, or treatment track) were more likely to provide other services that address women’s treatment needs (e.g., child care, transportation assistance, housing assistance, domestic violence counseling, employment counseling), and that units that were primarily publicly financed or not-for-profit were more likely to provide these services than those that were for-profit (Olmstead & Sindelar, 2004). Moreover, a panel study compared the provision of services relevant to women’s treatment needs (e.g., prenatal care, child care, single-sex therapy, same-sex therapists, staff trained in women’s treatment) in outpatient treatment programs in 1995 and 2005 (Campbell et al., 2007). The study found that there were significant declines over this period in the provision of single-sex therapy and the percentage of staff trained to work with women in outpatient programs. Furthermore, private for-profit treatment units became more prevalent over the study period, and these programs were less likely than others to provide the range of services defined by women’s treatment needs. There were also significant declines in the provision of same-gender group therapy in methadone programs from 1995 to 2000, as well as declines in same-gender individual and group therapy in non-methadone outpatient programs from 1995 to 2005. However, despite these decreases, same-gender group therapy was more prevalent among methadone than drug-free (non-methadone) outpatient programs (Alexander et al., 2008).

Overall, the availability of services targeted to women’s needs have become more prevalent within the treatment system over the past 25 years, largely due to increases in funding for these services and the development of women-specific programs. However, the availability of these services often depends on other organizational characteristics, including the type of treatment modality and the source of program revenue. Moreover, there remain gaps in the provision of needed services to women. As seen in one study of women who were referred into a women-specific program by the child welfare system, fewer than half of the women who indicated they had specific treatment needs for child care, family counseling, job training, housing assistance, and benefits assistance actually received these services while in treatment (Smith & Marsh, 2002). Thus, the provision of services dedicated to women is neither universal nor comprehensive throughout the broader treatment system.

Characteristics and outcomes of women treated in gender-specific programs

Table 1 provides a summary of published studies that examine the characteristics and outcomes of women who receive treatment in women-only substance use treatment programs, including some studies that compare women in mixed-gender and women-only programmes. As seen in this table, several studies suggest that women who receive treatment in women-only programs have a more severe profile of treatment needs at admission, but have better treatment retention, compared to women in mixed-gender programs. In an early study conducted in Australia, women treated in women-only residential programs were more likely to have been sexually abused as children, to be lesbian, and to have dependent children, compared to women in mixed-gender residential programs (Copeland & Hall, 1992b). Yet these women were also less likely to drop out of the women-only program compared with a mixed-gender program (Copeland & Hall, 1992a).

In another study conducted in Los Angeles, women who were treated in women-only residential programs had more severe problems before treatment entry, but were twice as likely as women in mixed-gender programs to complete treatment (Grella 1999). Another multi-site study in California compared women treated in women-only and mixed-gender programs, including both residential and outpatient programs. Women in women-only programs had greater problem severity in a number of domains including alcohol, drug, family, medical, and psychiatric (Niv & Hser, 2007). Moreover, they utilized more treatment services and had better drug and legal outcomes at follow-up compared to women in mixed-gender programs.

A study that used national data from a multi-site treatment outcome study in the United States found that pregnant and parenting women who were treated in residential programmes with higher proportions of other such women had longer stays in treatment, which were positively associated with post-treatment abstinence (Grella, Joshi, & Hser, 2000). These programmes also provided more comprehensive services, including services that addressed family, parenting, and mental health needs. Using national multi-site data, Brady and Ashley (2005) showed that women in women-only residential programs stayed in treatment an average of 83 days compared to 22 days for those in mixed-gender programs. Similarly, Greenfield and colleagues (2004) found that women were retained longer in gender-specific residential programs in three national treatment outcome studies. With regard to post-treatment outcomes of women treated in women-only versus mixed-gender programs, findings have been mixed. In a non-experimental study conducted in Australia, there were no outcome differences in drug use, severity of depression, self-esteem, or social support network between women in women-only and mixed-gender programs (Copeland et al., 1993). Prendergast and colleagues (2011) compared women treated in women-only versus mixed-gender outpatient programs; at one year follow-up, women who participated in the women-only treatment reported significantly less substance use and criminal activity than women in the mixed-gender treatment, but there were no differences in arrest or employment status at follow-up. Claus and colleagues (2007) showed that women who were treated in specialized residential treatment programs for women in Washington State were more likely than

those in standard mixed-gender programs to participate in continuing care following their discharge.

Another study used administrative records to examine post-treatment outcomes for up to 8 years among 500 mothers treated in women-only programs (across modalities) and a matched sample of 500 mothers treated in mixed-gender programs in California (Hser, Evans, Huang & Messina, 2011). They found that women treated in women-only programs had lower levels of arrest, mental health services utilization rates, and drug treatment participation during the first year after drug treatment. No differences were found, however, between the two groups in the long-term trajectories except that the women-only program participants had lower incarceration rates during the third year after treatment. In the same study, outcomes were examined specifically for Hispanic women. Hispanic women treated in women-only programs were underrepresented (relative to mixed-gender programs), and also had more severe treatment needs, indicated by greater severity in drug and alcohol use, health and mental health problems, economic status, and criminal justice involvement at admission. Hispanic women treated in women-only programs had higher mental health service utilization over 8 years post-treatment admission, although no differences were found in trajectories of arrests and incarceration (Hser, Hunt, Evans, Chang & Messina, 2012).

As shown in Table 1, most evaluations of women-only programs have used observational designs that capitalize on samples from women-only and mixed-gender programmes. There have been only a few experimental studies that compare the outcomes of treatment in women-only versus mixed-gender treatment programs. An experimental study of women in the “early stages” of alcohol dependence conducted in Sweden found that women treated in women-only programs had a greater reduction in alcohol use and better social adjustment compared to women who were treated in mixed-gender programs (Dahlgren & Willander, 1989). The authors surmised that women may be more likely to enter into women-only programs at an earlier stage of their addiction careers. In contrast, Kaskutas and colleagues found no beneficial effects of women-specific treatment in an experimental study that randomly assigned participants to a community-based women-only, community mixed-gender day treatment, or a hospital-based program (Kaskutas et al., 2005).

Overall, a large body of research has demonstrated that women have higher rates of treatment completion and better outcomes under the following conditions: (1) in residential treatment programs that have live-in accommodations for children (Wobie et al., 1997; Szuster et al., 1996; Stevens & Patton, 1998; Hughes et al., 1995); (2) in outpatient treatment that includes the provision of family therapy (Zlotnick et al., 1996), individual counseling (Volpicelli et al., 2000), and family services (Wingfield & Klempner, 2000); and (3) when treatment includes comprehensive supportive services, such as case management, pregnancy-related services, parenting training/classes, childcare, vocational training, and aftercare (Weisdorf et al., 1999; Strantz & Welch, 1995; Lanehart et al., 1996; Howell, Heiser & Harrington, 1999; Camp & Finkelstein, 1997). In addition, women in substance abuse treatment who receive a wider range of health and social services, or enhanced services, report better outcomes and greater satisfaction with treatment (Sanders, Trinh & Sherman, 1998), particularly when services are matched with their needs (Smith & Marsh, 2002; Marsh, D’Aunno & Smith, 2000).

In a systematic review of program factors related to successful treatment outcomes among women in 35 studies, five factors were identified: (1) single-versus mixed-gender programs; (2) treatment intensity; (3) provision of child care; (4) case management; and (5) supportive staff and the provision of individual counseling (Sun, 2006). Similarly, a systematic review of 38 studies of substance abuse treatment for women, most of which were non-experimental designs, identified six elements associated with better outcomes regarding treatment completion, length of stay, decreased use of substances, reduced mental health symptoms, improved birth outcomes, employment, self-reported health status, and HIV risk reduction (Ashley, Marsden & Brady, 2003). These elements are: (1) child care; (2) prenatal care; (3) women-only program composition; (4) supplemental services and workshops that address women-focused topics; (5) mental health services; and (6) comprehensive programming.

These comprehensive reviews also identified several methodological shortcomings to the extant body of research on women's treatment programs. These included a limited range of treatment outcomes examined, lack of experimental studies with randomized assignment to conditions, lack of standardized measures, lack of consistent definitions for treatment factors and outcomes, small sample sizes, lack of thorough program description, lack of thorough statistical analyses, small effect sizes for observed outcomes, and limited follow-up periods. Further, although it is assumed that the therapeutic process within women-specific programs differ from those in mixed-gender programs (Hodgins, el-Guebaly & Addington, 1997), few studies have measured the dynamic aspects of treatment provided in women-only as compared with mixed-gender programs. Some have noted that merely changing the program composition from mixed-gender to women-only may not substantially change the treatment process in order to fully address women's treatment needs (Bride, 2001). Others have noted that traditional therapeutic community (TC) programs, even if gender-specific, may be clinically inappropriate if their emphasis on confrontation is not modified to accommodate the greater likelihood of trauma and abuse history among women, particularly among women in the criminal justice system where TC programs have been widely adopted (Eliason, 2006).

One recent study validated three scales that measured different domains of "gender-sensitive" treatment (Grella, 2008), using data from site visits and semi-structured interviews with program directors, clinical directors, and counselors in 13 mixed-gender outpatient treatment programs from Washington State (Tang, Claus, Orwin, Kissin & Arieira, 2012). The unique domains included: (1) treatment orientation and staff training (i.e., program orientation toward behavioral health services and staff training related to women's treatment, such as trauma, parenting, cultural issues, domestic violence), (2) general and women-specific services (i.e., treatment assessment and services related to vocational counseling, trauma, life skills, parenting needs, medical needs) and (3) program physical environment (i.e., safety, privacy, livability of the program and surrounding area, such as cleanliness, recreational areas, number of clients per bedroom/bathroom). However, the relationship of these specific domains with treatment outcomes among women treated in women-specific programs has not been examined.

An important consideration with regard to the adoption of gender-specific services is the generally higher cost of these services, due to the longer duration of

treatment and inclusion of services such as medical services, services for children, mental health services, housing, etc. that increase costs (Burgdorf et al., 2004). One study found that a mixed-gender aftercare treatment program was less cost-effective for women compared with men because of the higher costs associated with women's more severe baseline characteristics (e.g., more employment needs; Yeom & Shepard, 2007). Yet several studies have shown that despite the generally higher costs of gender-specific treatment for women, these costs are offset by the improved outcomes they yield. Cost-benefit analyses have shown favorable results in residential versus outpatient treatment for women (Daley et al., 2000); in specialized versus standard residential programs for women (French et al., 2002); and in a multidisciplinary, comprehensive treatment program for pregnant women versus standard care (Svikis et al. 1997). Moreover, a cost-outcome study of SAMHSA's multi-site Women, Co-Occurring Disorders and Violence Study showed that there was no added cost for trauma-integrated treatment over standard treatment (Domino et al., 2005).

Study	Research Design	Sample Site / Location	Findings
Dahlgren & Willander, 1989	Experimental study of women alcoholics in "specialized female unit" vs. MG programmes	N = 200 Sweden	Reduced alcohol use and better social adjustment in WO programs at 2-year follow-up.
Copeland, Hall, Didcott, & Biggs, 1993 Copeland & Hall, 1992a, 1992b	Non-experimental comparison of "specialized women's services" vs. MG programmes	N = 160 Australia	Women in WO programs were more likely to have dependent children, to be Lesbian, to have a maternal history of drug and alcohol problems, and to have history of childhood sexual abuse. No differences between WO and MG in alcohol or drug use, depression, self-esteem, or social support network at 6-month follow-up. Lesbians, women with a history of childhood sexual abuse and women with dependent children had better retention in WO programmes.
Grella, 1999	Observational comparison of WO vs. MG residential programs using administrative data	N = 4,117 Los Angeles	Women in WO programmes were more likely to be pregnant, homeless, or on probation; to use methamphetamines; and to have prior treatment. They were twice as likely to complete treatment compared to women in MG programs.
Bride, 2001	Comparison of clients in MG programs before/after change to single-gender programmes	N = 102 (women) N = 305 (men) Southeastern U.S.	No differences in treatment retention or completion for men or women treated in MG or single-gender programs.
Kaskutas, Zheng, French, & Witbrodt, 2005	Randomized clinical trial of one community-based WO day treatment programme, 2 MG community programmes, and one MG hospital-based programme	N = 122 Northern California	No differences in psychiatric severity, problems with family or friends, and drug use at 6- and 12-month follow-up. Higher odds of total abstinence for women in MG hospital programme vs. WO programme, although average treatment cost was higher in MG than WO programme.
Hser & Niv, 2006	Observational study of pregnant women in 7 WO programmes vs. 29 MG programmes	N = 407 California	Pregnant women in WO programmes had greater severity in drug use, legal problems, and psychiatric problems; and they were more likely to be unemployed and homeless at admission.
Niv & Hser, 2007	Observation comparison of WO vs. MG public programmes	N = 1,060 California	Women in WO programmes were more likely to be white, less educated, physically abused in past 30 days, and in residential (vs. outpatient) treatment. They also had greater problem severity (alcohol, drug, family, medical, psychiatric), utilized more services, and had better drug and legal outcomes at 9-month follow-up.
Claus, Orwin, Kissin, Krupski, Campbell, & Stark, 2007	Observational study of 7 "specialized" WO vs. 9 MG residential programmes	N = 1,570 Washington State	Women in WO programmes were more likely to participate in continuing care after treatment discharge, especially if they completed treatment.

Prendergast, Messina, Hall, & Warda, 2011	Observational study of WO vs. MG outpatient programmes	N = 291 Los Angeles	Women in WO programmes had less drug use and criminal activity at 1 year follow-up. There were no differences in arrests or employment status.
Hser, Evans, Huang, & Messina, 2011	Observational study of mothers in WO programmes vs. a matched sample in MG programmes; 8-year follow-up using administrative records	N = 500 in each group; California	Women in WO programmes had lower levels of arrest, mental health services use, and drug treatment participation in 1st year post-treatment. There were no differences in years 2-8, except lower incarceration rates for WO clients in year 3.
Hser, Hunt, Evans, Chang, & Messina, 2012	Hispanic sub-sample in above study from 40 treatment programmes	N = 979 California	Hispanic women were underrepresented in WO programmes. Hispanic women in WO programmes had more severe treatment needs (alcohol and drug severity, physical and mental health problems, and criminal justice involvement), poorer economic status, higher mental health services use. There were no differences in arrests or incarceration over 8-year follow-up.
Messina, Calhoun, & Warda, 2012	Experimental study of women drug court participants in WO vs. MG outpatient treatment	N = 150 San Diego, CA	Women in WO programmes had fewer jail sanctions while in treatment and greater reduction in PTSD symptoms at 18 month follow-up. Women in MG programmes increased in one PTSD symptom domain (re-experiencing). No difference in arrest at 2 years post-treatment.

Table 1. Summary of Research on Women-Only vs. Mixed-Gender Treatment Programs
 WO = women-only; MG = mixed-gender

Substance abuse treatment for criminal justice involved women

Given their higher rates of arrest and incarceration in recent years, particularly for drug-related crime, women substance abusers are increasingly being referred to treatment under court supervision (Grella, 2008). As with substance-abusing women in community treatment, criminal justice-involved women with substance use problems typically report a more severe clinical profile compared to justice-involved men (Belenko & Houser, 2012), and are in need of a wider range of services (Adams, Leukefeld & Peden, 2008; Messina, Burdon, & Prendergast, 2003). Yet women offenders often face barriers to accessing health care, treatment and other services in the community if they lack employment and/or health insurance coverage (Fearn & Parker, 2005; Staton, Leukefeld, & Webster, 2003). They may feel intimidated or stigmatized in their interactions with health care providers (Staton, Leukefeld, & Logan, 2001; Plugge, Douglas, & Fitzpatrick, 2011), which further limits their use of health care and prevention-oriented services.

Studies have shown that incarcerated women have significantly higher rates of psychiatric disorders than incarcerated men (Binswanger et al., 2010; Sacks, 2004; Teplin et al., 1996). About one half of women on probation or parole have a past-year mental disorder, which is approximately twice the rate of women in the general population (National Survey on Drug Use and Health, 2012). Women offenders are 2 - 4 times more likely to have a history of various types of trauma and abuse compared to women in the general population of comparable socio-demographics (Grella, Lovinger, & Warda, 2013; Messina & Grella, 2006). Further, because of their high rates of trauma exposure, women offenders are at high risk of PTSD. Rates of lifetime PTSD among women offenders typically range from

one quarter to one third (Hutton et al., 2001). Incarcerated women are especially at risk for trauma re-exposure and PTSD if they engage in prostitution (Millay et al., 2009). Addressing their treatment needs related to trauma exposure and associated trauma-related symptoms is paramount, as studies have shown that offenders with mental health problems are more likely than others to return to prison (Messina, Burdon, Hagopian, & Prendergast, 2004).

Women offenders typically have limited employment skills and work history, and repeated prior interactions with the criminal justice system (Langan & Pelissier, 2001; Pelissier & Jones, 2005; Grella & Greenwell, 2007). Many women substance abusers that enter into the criminal justice system have been separated from their children and are involved with the child welfare system. They often lack basic parenting skills and display poor parental attitudes that are indicative of a higher risk for child abuse (Grella & Greenwell, 2006).

In addition, women offenders often have physical health problems that stem from the effects of their substance abuse and associated unhealthy behaviors, which are exacerbated by their lack of access to or utilization of health care services (Staton, Leukefeld, & Logan, 2001). Research has shown that substance-abusing women offenders are at risk of a range of chronic physical health problems; these include TB, hepatitis, toxemia, anemia, hypertension, diabetes, and obesity (Langan & Pelissier, 2001). Women offenders often have reproductive health problems, including unplanned pregnancies, inconsistent use of birth control, and high rates of STDs (Clarke et al., 2006; Fogel, 1993).

Several studies have shown high rates of sexual risk behaviors among women offenders, which make them vulnerable to HIV and other STDs (Guydish et al., 2011; Scott & Dennis, 2012). Female offenders have high rates of infectious diseases, STDs, and high-risk behaviors for HIV/AIDS stemming from their involvement in prostitution and sexual contact with high-risk sex partners (Schilling et al., 1994; Vlahov et al., 1991; Guyon et al., 1999; Magura et al., 1993). Studies have also shown that women inmates have limited access to medical services (Plugge & Fitzpatrick, 2005; Plugge, Douglas & Fitzpatrick, 2008; Douglas, Plugge, & Fitzpatrick, 2009) and receive poor health care, especially gynaecological services (Stoller, 2000) while incarcerated. Without adequate intervention, these women are at high risk for chronic health problems that could have been averted with improved health behaviors. For example, one study in England found that over 85% of a sample of incarcerated women smoked cigarettes, were inactive, and did not eat adequate amounts of fruits and vegetables, and 30% were overweight or obese (Plugge et al., 2009). Unemployment and lower education were both associated with higher levels of health risk behaviors, in particular hypertension (Shah, Plugge & Douglas, 2011). The rate of smoking among female offenders far exceeds that of women in the general population, and there is an urgent need for smoking cessation interventions for this population – both for their own health status and that of their children who are exposed to second-hand smoke (Cropsey et al., 2004, 2008).

Because women in the criminal justice system have more severe problems related to their drug use and background, they are more likely to need higher intensity treatment, including residential treatment, treatment for a longer duration, and continuing care (Belenko & Peugh, 2005). One study showed

that women in prison were more likely than men of comparable drug-related problems to participate in treatment, particularly among women with a history of opiate, cocaine, or methamphetamine use (Belenko & Houser, 2012). Yet some research has shown that women in prison receive fewer services than their male counterparts (Oser et al., 2009) and that they face additional barriers to accessing services in the community (Jordan et al., 2002; Staton, Leukefeld & Logan, 2001). Moreover, women released from jail have high rates of relapse and need for treatment; one study of female arrestees shows that approximately three quarters of women relapsing to drug use within 90 days of their release (Scott & Dennis, 2012).

Several randomized controlled studies have found better outcomes for women offenders who are treated in “gender-responsive” programs designed specifically for women (Covington & Bloom, 2006). In one study, women in drug court who received gender-responsive outpatient treatment, compared to women who received usual care, had better in-treatment performance, more positive perceptions of treatment, and a trend for greater reductions in symptoms of PTSD (Messina, Calhoun & Warda, 2012). Another study of women in prison showed that those who received a manual-guided gender-responsive treatment program had significantly lower re-incarceration rates 12 months after parole compared to participants in a standard, therapeutic community program (31% vs. 45%, respectively). They were also more likely to participate in aftercare following parole (Messina, Grella, Cartier & Torres, 2010). Lastly, women in prison who participated in a “gender-sensitive” modified therapeutic community had better outcomes regarding drug use, mental health functioning, criminal activity, trauma exposure, and recidivism, compared to women who received usual care outpatient substance abuse treatment (Sacks, McKendrick & Hamilton, 2012).

In sum, women offenders with substance use problems share similar characteristics to women in community-based substance abuse treatment, although their problems are typically more severe. They generally present a more severe clinical profile in relation to men, particularly regarding mental and physical health, history of trauma and abuse, parenting, and employment needs. Given their high need for services, both in correctional and community settings, and the effects of their incarceration on themselves and their families, a priority should be placed on developing gender-responsive interventions for substance-abusing women who are involved in the criminal justice system.

Evidence-based treatment approaches for women substance abusers

In the past, studies of the effectiveness of substance abuse treatment often failed to take into consideration either gender differences or specific approaches developed for women (Greenfield et al., 2011). Yet recently, there is a growing literature based on the findings of comparative effectiveness studies that examine treatment protocols that have been developed, or modified, specifically for women. In Table 1 we briefly review findings from research on the predominant evidence-based treatment approaches that have been examined for women.

Pharmacotherapy

Several studies have examined the use of opiate-substitution therapies in the treatment of pregnant women, examining outcomes related to prenatal exposure and birth outcomes, and the relationship with dosing (Kaltenbach, Berghella & Finnegan 1998; Johnson et al., 2001; Fischer et al., 2000). Pharmacological treatment of opiate-dependent pregnant and post-partum women requires careful consideration of the assessment and selection of appropriate maintenance medication; induction and stabilization; and medication management in relation to the various stages of pregnancy, delivery, post-partum, and aftercare. A large, multi-site double-blind study recently showed that opiate-dependent pregnant women who receive buprenorphine have similar or improved outcomes (with regard to treatment adherence, birth outcomes, neonatal status) as pregnant women who receive methadone maintenance treatment (Jones et al., 2012; Gaalema et al., 2012).

Apart from issues related to pregnancy, few clinically significant gender differences have been identified in the use of buprenorphine (a medication with both opioid-agonist and antagonist properties) and methadone (an opioid agonist). There is some evidence suggesting gender differences in dose-response to medications used to treat substance abuse (Pettinati et al. 2007; Pettinati, Dundon & Lipkin 2004), with poorer outcomes regarding side effects, retention, and abstinence observed among women than men. Other studies have identified gender differences in response to different dosing schedules (Marsch et al. 2005). However, a recent study found no significant gender differences among individuals in a large clinical trial for prescription opioid dependence in medication dose, treatment retention, or opioid outcomes (McHugo et al., 2013). There were differences, however, in baseline characteristics, with women reporting significantly greater functional impairment, greater psychiatric severity, and more use of opioids to cope with negative emotions and pain than men, and men reporting more alcohol problems than women.

There is some evidence suggesting that, among patients with cocaine and alcohol dependence being treated with naltrexone (an opioid receptor antagonist), women have more side effects, less treatment adherence, more treatment attrition, and lower rates of abstinence in response to the same dose, compared to men. Gender differences in pharmacokinetics (e.g., processes related to the absorption, distribution, metabolism, and elimination of a drug) may underlie differential responses to medications and their effectiveness in treating alcohol or drug dependence; however, research in this area is still limited.

Cognitive behavioral therapy/relapse prevention

Cognitive behavioral therapies use structured protocols to teach patients skills for managing their symptoms and avoiding relapse (i.e., relapse prevention). Patients are taught how to recognize “cues” or “triggers” of substance use and to use strategies for avoiding relapse in those situations. As noted previously, research has shown that different factors are associated with relapse to substance use following treatment for men and women, particularly related to social situations and relationships. Several small pilot studies have tested cognitive behavioral therapy approaches delivered to women in group settings.

A behavioral therapy trial conducted by Greenfield and colleagues (Greenfield et al. 2007b) aims to parcel out the effects of a women-specific group therapy that uses cognitive behavioral techniques. The trial compares the outcomes of women who participate in an all-women's group that focuses on the factors that precipitate and consequences of women's alcohol and drug use. Results from a pilot study show promising outcomes for the all-women group compared with standard group therapy, but at present it is unclear if the group dynamics, such as the level of comfort and support and nature of interaction in the all-women's group, versus the content of discussion regarding women's specific cues and triggers, or both processes, underlie the superior outcomes. In addition, there are significant reductions in psychiatric symptoms up to 6-months post-treatment among participants in both treatment groups, and these are greater among women with higher degrees of severity (McHugh & Greenfield, 2010). Another pilot study testing a women-specific group counseling intervention, using a workbook-based psycho-education approach, shows promising results regarding retention and satisfaction, but has not yet been tested in an experimental trial (Najavits et al., 2007b).

Motivational enhancement interventions

Motivational enhancement interventions use therapeutic strategies to increase the individual's awareness of their substance abuse problems and to engage their commitment to behavior change. These approaches can build upon the issues that are central to motivating women to address their substance abuse problems, particularly related to their identity, self-esteem, health, and relationships with children, other family members, and friends. Motivational interventions can also build upon the specific coping styles used by women, which may be more emotionally focused than those of men (Cook, Epperson & Gariti, 2005) as well as more reliant on religious or spiritual coping methods (Fallot & Heckman, 2005).

Few studies have actually looked at gender differences in the effectiveness of motivational approaches (Vasilaki, Hosier & Cox, 2006). Most of these studies have focused on pregnant substance-abusing women, since pregnant women may decline to enter into treatment if they fear doing so will jeopardize their custody of their children (Jessup et al., 2003; Haller, Miles & Dawson, 2003). Moreover, pregnancy may be a "window of opportunity" during which women are potentially more receptive to motivational interventions that can be delivered within prenatal care visits (Jessup & Brindis, 2005; DiClemente, Dolan-Millun & Windsor, 2000). In one study, a brief motivational intervention was used to address alcohol use among pregnant women in primary health care settings; information on the health effects of alcohol use during pregnancy was provided, with the aim of motivating women based on their desire to protect the health of their child (Handmaker, Miller & Manicke, 1999). Participants who had the highest blood alcohol levels during early pregnancy had greater reductions in alcohol use at a 2-month follow-up if they received the motivational interview, compared to participants that merely received an informational pamphlet. Similarly, in another experimental study, pregnant women with the highest levels of alcohol consumption had significantly greater reductions in use after a single-session brief intervention compared with a

usual care group; furthermore, the effect was enhanced when the woman's partner participated in the session (Chang et al., 2005).

An experimental study conducted in the NIDA-sponsored Clinical Trials network examined the effectiveness of the Motivational Enhancement Therapy for Pregnant Substance Users (three sessions) versus treatment as usual (three individual counseling sessions) among pregnant women recruited from four programs. Although there were no overall beneficial effects of the motivational intervention for the study sample as a whole, minority women who received the intervention tended to have better substance use outcomes at the one-month follow-up (Ondersma et al., 2009).

Contingency management

Contingency management approaches employ a schedule of rewards to strengthen the practice of desired behaviors (e.g., abstinence). These rewards are small gifts, cash, or vouchers that can be accumulated according to the duration of abstinence attained, and they can be reversed upon a relapse. These approaches have been successfully used in smoking reduction programs for pregnant women who are in treatment for drug abuse (Donatelle et al., 2004), most commonly in methadone maintenance treatment (Svikis et al., 1997b; Jones et al., 2001; Jones et al., 2000; Tuten, Fitzsimons, Chisolm, Nuzzo & Jones, 2012). Use of contingency-based incentives has also been combined with motivational interventions to increase participation in counseling sessions among pregnant women seeking prenatal care (Jones et al., 2004).

Trauma-specific interventions

As noted previously, women in substance abuse treatment, either community- or correctional-based, have higher rates of co-occurring post-traumatic stress disorder (PTSD) compared to men and to women in the general population. Women with both substance use disorders and PTSD are more impaired at admission to treatment and show less improvement over time in measures of substance use and psychosocial functioning (Najavits et al., 2007a). Similarly, exposure to childhood abuse and trauma among women has been associated with less improvement in substance use severity and mental health status following substance abuse treatment (Sacks, McKendrick & Banks, 2007) and with higher rates of relapse.

Several interventions have been developed to integrate treatment for trauma exposure and PTSD within the context of substance abuse treatment (McHugo et al. 2005). SAMHSA's Women, Co-Occurring Disorders and Violence Study has provided a rich basis of empirical support for the inclusion of trauma-specific services within the context of substance abuse treatment for women. This multi-site, quasi-experimental initiative tested the effectiveness of a menu of trauma-related interventions that were integrated into substance abuse treatment, in comparison with substance abuse treatment-as-usual. The outcome showed that women who received trauma-informed treatment had greater improvements in trauma and mental health-related symptoms at 12-month follow-up, compared with those in the usual-care comparison condition, although there were no differences

between groups in substance use outcomes (Morrissey et al., 2005). The strongest effects were found in sites where counseling sessions (either individual or group) integrated trauma-related, substance abuse, and mental health issues, yielding greater reductions in mental health symptoms and alcohol and drug use problem severity (Cocozza et al., 2005).

Several trauma-specific interventions have been developed. These include: Seeking Safety, which integrates cognitive behavioral strategies with group psychotherapy to address both PTSD and substance abuse disorders (Najavits et al., 1998; Najavits, 2002); Beyond Trauma, which employs “relational theory” to build upon the importance of relationships in women’s emotional well-being (Covington, 2003); and the Trauma Recovery and Empowerment Model (TREM), which uses group therapy to promote recovery skills and social functioning (Fallot & Harris, 2002).

Many of these protocols are currently undergoing clinical studies in the field to test their effectiveness with different populations. One experimental study conducted as part of the NIDA-sponsored Clinical Trials Network examined the effectiveness of Seeking Safety (12 sessions) relative to a control condition for women in 7 outpatient treatment programs. Both treatment groups reduced their PTSD symptoms, with marginally greater improvements among participants in Seeking Safety who attended more sessions, although there were no differences in substance use outcomes (Hien et al., 2009). Further, individuals who participated in Seeking Safety, and who had more severe substance use disorders at baseline, had better improvements in substance use outcomes contingent upon prior reductions in PTSD symptoms (Hein et al., 2010).

Conclusion

There have been tremendous gains in recent years in our understanding of the influence of gender on the differential pathways into treatment, the clinical and service need profiles of women who enter into treatment, and the factors related to their treatment retention and outcomes. Moreover, there is a growing body of research on the organizational characteristics of the programs in which women receive substance abuse treatment, the types of services that are provided in these programs, and the relationship of services received to treatment outcomes, including the cost effectiveness of “specialized” treatment for women. The growing emphasis on evidence-based treatment approaches within the field of addiction treatment provides further opportunities to tailor treatment protocols to increase their effectiveness with women, particularly cognitive behavioral therapies, motivational enhancement interventions, contingency management, and trauma-specific interventions. At the same time, the emerging emphasis on developing treatment protocols that are “gender responsive” provides a framework for treatment services that are based in an understanding of how gender influences the development and progression of substance use disorders and treatment processes and outcomes. It is critical to continue to develop, implement, disseminate, and sustain effective treatment approaches that are specifically tailored to addressing women’s treatment needs.

References

- Adams, S., Leukefeld, C. G., & Peden, A. R.** (2008). Substance abuse treatment for women offenders: A research review. *Journal of Addictions Nursing*, 19, 61-75.
- Alexander, J. A., Nahra, T. A., Lemak, C. H., Pollack, H., & Campbell, C. I.** (2008). Tailored treatment in the outpatient substance abuse treatment sector: 1995-2005. *Journal of Substance Abuse Treatment*, 34(3), 282-292.
- Amaro, H., Dai, J., Arevalo, S., Acevedo, A., Matsumoto, A., Nieves, R., & Prado, G.** (2007). Effects of integrated trauma treatment on outcomes in a racially/ethnically diverse sample of women in urban community-based substance abuse treatment. *Journal of Urban Health*, 84(4), 508-522.
- Amaro, H., Larson, M. J., Gampel, J., Richardson, E., Savage, A., & Wagler, D.** (2005). Racial/ethnic differences in social vulnerability among women with co-occurring mental health and substance abuse disorders: Implications for treatment services. *Journal of Community Psychology*, 33(4), 495-511.
- Anglin, M.D., Kao, C.F., Harlow, L.L., Peters, K., & Booth, M.W.** (1987). Similarity of behavior within addict couples: Part I. Methodology and narcotics patterns. *International Journal of the Addictions*, 22, 497-524.
- Ashley, O. S., Marsden, M. E., & Brady, T. M.** (2003). Effectiveness of substance abuse treatment programming for women: A review. *American Journal of Drug and Alcohol Abuse*, 29(1), 19-53.
- Belenko, S., & Houser, K.** (2012). Gender differences in prison-based drug treatment participation. *International Journal of Offender Therapy and Comparative Criminology*, 56(5), 790-810.
- Belenko, S., & Peugh, J.** (2005). Estimating drug treatment needs among state prison inmates. *Drug and Alcohol Dependence*, 77, 269-281.
- Binswanger, I. A., Merrill, J. O., Krueger, P. M., White, M. C., Booth, R. E., & Elmore, J. G.** (2010). Gender differences in chronic medical, psychiatric, and substance-dependence disorders among jail inmates. *American Journal of Public Health*, 100(3), 476-482.
- Brady, T. M., & Ashley, O. S.** (Eds.) (2005). *Women in substance abuse treatment: Results from the Alcohol and Drug Services Study (ADSS)* (DHHS Publication NO. SMA 04-3968, Analytic Series A-26). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.
- Brady, K. T., Grice, D. E., Dustan, L., & Randall, C.** (1993). Gender differences in substance use disorders. *American Journal of Psychiatry*, 150(11), 1707-1711.
- Bride, B.E.** (2001). Single-gender treatment of substance abuse: Effect on treatment retention and completion. *Social Work Research*, 25, 223-232.
- Brooks, A., Meade, C.S., Potter, J.S., Lokhnygina, Y., Calsyn, D.A., & Greenfield, S. F.** (2010). Gender differences in the rates and correlates of HIV risk behaviors among drug abusers. *Substance Use & Misuse*, 45(14), 2444-2469.

Burgdorf, K., Dowell, K., Chen, X., Roberts, T., & Herrell, J. M. (2004a). Birth outcomes for pregnant women in residential substance abuse treatment. *Evaluation and Program Planning*, 27, 199-204.

Burgdorf, K., Layne, M., Roberts, T., Miles, D., & Herrell, J. M. (2004b). Economic costs of residential substance abuse treatment for pregnant and parenting women and their children. *Evaluation and Program Planning*, 27, 233-240.

Camp, J. M., & Finkelstein, N. (1997). Parenting training for women in residential substance abuse treatment: Results of a demonstration project. *Journal of Substance Abuse Treatment*, 14(5), 411-422.

Campbell, C. I., & Alexander, J. A. (2005). Health services for women in outpatient substance abuse treatment. *Health Services Research*, 40(3), 781-810.

Campbell, C. I., Wells, R., Alexander, J. A., Jiang, L., Nahra, T. A., & Lemak, C. H. (2007). Tailoring of outpatient substance abuse treatment to women, 1995-2005. *Medical Care*, 45(8), 775-780.

Chang, G., McNamara, T. K., Orav, E. J., Koby, D., Lavigne, A., Ludman, B., Wilkins-Haug, L. (2005). Brief intervention for prenatal alcohol use: A randomized trial. *Obstetrics & Gynecology*, 105(5 Pt 1), 991-998.

Chatham, L. R., Hiller, M. L., Rowan-Szal, G. A., Joe, G. W., & Simpson, D. D. (1999). Gender differences at admission and follow-up in a sample of methadone maintenance clients. *Substance Use & Misuse*, 34(8), 1137-1165.

Clarke, J. G., Hebert, M. R., Rosengard, C., Rose, J. S., DaSilva, K. M., & Stein, M. D. (2006). Reproductive health care and family planning needs among incarcerated women. *American Journal of Public Health*, 96(5), 834-839.

Claus, R. E., Orwin, R. G., Kissin, W., Krupski, A., Campbell, K., & Stark, K. (2007). Does gender-specific substance abuse treatment for women promote continuity of care? *Journal of Substance Abuse Treatment*, 32, 27-39.

Cocozza, J. M., Jackson, E. W., Hennigan, K., Morrissey, J. P., Reed, B. G., Fallot, R., & Banks, S. (2005). Outcomes for women with co-occurring disorders and trauma: Program-level effects. *Journal of Substance Abuse Treatment*, 28, 109-119.

Collins, C., Grella, C.E., & Hser, Y.I. (2003). Effects of gender and level of parental involvement among parents in drug treatment. *American Journal of Drug and Alcohol Abuse*, 29(2), 237-261.

Conners, N. A., Bradley, R. H., Mansell, L. W., Liu, J. Y., Roberts, T. J., Burgdorf, K., & Herrell, J. M. (2004). Children of mothers with serious substance abuse problems: An accumulation of risks. *American Journal of Drug and Alcohol Abuse*, 30, 85-100.

Cook, L. S., Epperson, L., & Gariti, P. (2005). Determining the need for gender-specific chemical dependence treatment: Assessment of treatment variables. *American Journal on Addictions*, 14, 328-338.

Copeland, J. (1997). A qualitative study of barriers to formal treatment among women who self-managed change in addictive behaviours. *Journal of Substance Abuse Treatment*, 14(2), 183-190.

Copeland, J., & Hall, W. (1992a). A comparison of predictors of treatment drop-out of women seeking drug and alcohol treatment in a specialist women's and two traditional mixed-sex treatment services. *British Journal of Addiction*, 87(6), 883-890.

Copeland, J., & Hall, W. (1992b). A comparison of women seeking drug and alcohol treatment in a specialist women's and two traditional mixed-sex treatment services. *British Journal of Addiction*, 87(9), 1293-1302.

Copeland, J., Hall, W., Didcott, P., & Biggs, V. (1993). A comparison of a specialist women's alcohol and other drug treatment service with two traditional mixed-sex services: Client characteristics and treatment outcome. *Drug and Alcohol Dependence*, 32(1), 81-92.

Covington, S. S. (2003). *Beyond trauma: A healing journey for women: Facilitator's guide*. Center City, MN: Hazelden.

Covington, S., & Bloom, B. (2006). Gender responsive treatment and services in correctional settings. In E. Leeder (Ed.), *Inside and out: Women, prison, and therapy*. Binghamton, NY: Haworth Press.

Cropsey, K., Eldridge, G. D., & Ladner, T. (2004). Smoking among female prisoners: An ignored public health epidemic. *Addictive Behaviors*, 29, 425-431.

Cropsey, K., Eldridge, G. D., Weaver, M., Villalobos, G., Stitzer, M., & Best, A. (2008). Smoking cessation intervention for female prisoners: Addressing an urgent public health need. *American Journal of Public Health*, 98, 1894-1901.

Dahlgren, L., & Willander, A. (1989). Are special treatment facilities for female alcoholics needed? A controlled 2-year follow-up study from a specialized female unit (EWA) versus a mixed male/female treatment facility. *Alcoholism: Clinical and Experimental Research*, 13(4), 499-504.

Daley, M., Argeriou, M., McCarty, D., Callahan, J. J., Shepard, D. S., & Williams, C.N. (2000). The costs of crime and the benefits of substance abuse treatment for pregnant women. *Journal of Substance Abuse Treatment*, 19, 445-458.

Dawson, D. A., Grant, B. F., Chou, S. P., & Stinson, F. S. (2007). The impact of partner alcohol problems on women's physical and mental health. *Journal of Studies on Alcohol and Drugs*, 68, 66-75.

Di Clemente, C. C., Dolan-Millun, P., & Windsor, R. A. (2000). The process of pregnancy smoking cessation: Implications for interventions. *Tobacco Control*, 9(Suppl. 3), 16-21.

Domino, M. E., Morrissey, J. P., Chung, S., Huntington, N., Larson, M. J., & Russel, L. A. (2005). Service use and costs for women with co-occurring mental and substance use disorders and a history of violence. *Psychiatric Services*, 56(10), 1223-1232.

Donatelle, R. J., Hudson, D., Dobie, S., Goodall, A., Hunsberger, M., & Oswald, K. (2004). Incentives in smoking cessation: Status of the field and implications for research and practice with pregnant smokers. *Nicotine & Tobacco Research*, 6(Suppl2), 163-179.

Douglas, N., Plugge, E., & Fitzpatrick, R. (2009). The impact of imprisonment on health: What do women prisoners say? *Journal of Epidemiology and Community Health*, 63(9), 749-754.

Downey, L., Rosengren, D. B., & Donovan, D. M. (2003). Gender, waitlists, and outcomes for public-sector drug treatment. *Journal of Substance Abuse Treatment*, 25(1), 19-28.

El-Bassel, N., Gilbert, L., Golder, S., Wu, E., Chang, M., Fontdevila, J., & Sanders, G. (2004). Deconstructing the relationship between intimate partner violence and sexual HIV risk among drug-involved men and their female partners. *AIDS and Behavior*, 8(4), 429-439.

El-Bassel, N., Gilbert, L., Wu, E., Chang, M., & Fontdevila, J. (2007). Perpetration of intimate partner violence among men in methadone treatment programs in New York City. *American Journal of Public Health*, 97(7), 1230-1232.

Eliason, M. J. (2006). Are therapeutic communities therapeutic for women? *Substance Abuse Treatment, Prevention, and Policy*, 1(3), 1-7.

Elton, A., & Kilts, C.D. (2009). The role of sex differences in the drug addiction process. In K.T. Brady, S.E. Back, & S.F. Greenfield (Eds.), *Women and addiction: A comprehensive handbook* (pp. 147-170). New York: Guilford Press.

Erickson, S., & Tonigan, J. (2008). Trauma and intravenous drug use among pregnant alcohol/other drug abusing women: Factors in predicting child abuse potential. *Alcoholism Treatment Quarterly*, 26(3), 313-332.

Fallot, R. D., & Harris, M. (2002). The Trauma Recovery and Empowerment Model (TREM): Conceptual and practical issues in a group intervention for women. *Community Mental Health Journal*, 38(6), 475-485.

Fallot, R. D., & Heckman, J. P. (2005). Religious/spiritual coping among women trauma survivors with mental health and substance use disorders. *Journal of Behavioral Health Services & Research*, 32(2), 215-226.

Fearn, N. E., & Parker, K. (2005). Health care for women inmates: Issues, perceptions and policy considerations. *Californian Journal of Health Promotion*, 3(2), 1-22.

Fischer, G., Johnson, R. E., Eder, H., Jagsch, R., Peternell, A., Weninger, M., Aschauer, H. N. (2000). Treatment of opioid-dependent pregnant women with buprenorphine. *Addiction*, 95(2), 239-244.

Fogel, C. (1993). Pregnant inmates: Risk factors and pregnancy outcomes. *Journal of Obstetric and Gynecological Neonatal Nursing*, 22, 33-39.

French, M. T., McCollister, K. E., Cacciola, J., Durell, J., & Stephens R. L. (2002). Benefit-cost analysis of addiction treatment in Arkansas: Specialty and standard residential programs for pregnant and parenting women. *Substance Abuse*, 23(1), 31-51.

Gaalema, D. E., Scott, T. L., Heil, S. H., Coyle, M. G., Kaltenbach, K., Badger, G. J., Jones, H. E. (2012). Differences in the profile of neonatal abstinence syndrome signs in methadone-versus buprenorphine-exposed neonates. *Addiction*, 107 (Suppl 1), 53-62.

Gallo, R. J., Crits-Christoph, P., Ten Have, T. R., Barber, J. P., Frank, A., Griffin, M. L., & Thase, M. E. (2007). Differential transitions between cocaine use and abstinence for men and women. *Journal of Consulting and Clinical Psychology*, 75(1), 95-103.

- Gordon, S. M., Johnson, J. A., Greenfield, S. F., Cohen, L., Killeen, T., & Roman, P. M.** (2008). Assessment and treatment of co-occurring eating disorders in publicly funded addiction treatment programs. *Psychiatric Services*, 59(9), 1056-1059.
- Green, C. A.** (2006). Gender and use of substance abuse treatment services. *Alcohol Research & Health*, 29(1), 55-62.
- Green, C. A., Polen, M. R., Dickinson, D. M., Lynch, F. L., & Bennett, M. D.** (2002). Gender differences in predictors of initiation, retention, and completion in an HMO-based substance abuse treatment program. *Journal of Substance Abuse Treatment*, 23(4), 285-295.
- Greenfield, L., Burgdorf, K., Chen, X., Porowski, A., Roberts, T., & Herrell, J.** (2004). Effectiveness of long-term residential substance abuse treatment for women: Findings from three national studies. *American Journal of Drug and Alcohol Abuse*, 30(3), 537-550.
- Greenfield, S. F., Brooks, A. J., Gordon, S. M., Green, C. A., Kropp, F., McHugh, K., Miele, G. M.** (2007a). Substance abuse treatment entry retention, and outcome in women: A review of the literature. *Drug and Alcohol Dependence*, 86(1), 1-21.
- Greenfield, S. F., Rosa, C., Putnins, S. I., Green, C. A., Brooks, A. J., Calsyn, D. A., Winhusen, T.** (2011). Gender research in the National Institute on Drug Abuse National Treatment Clinical Trials Network: A summary of findings. *American Journal of Drug and Alcohol Abuse*, 37(5), 301-312.
- Greenfield, S. F., Trucco, E. M., McHugh, R. K., Lincoln, M., & Gallop, R. J.** (2007b). The women's recovery group study: A stage I trial of women-focused group therapy for substance use disorders versus mixed-gender group drug counseling. *Drug and Alcohol Dependence*, 90(1), 39-47.
- Grella, C.E.** (2008). From generic to gender-responsive treatment: Changes in social policies, treatment services, and outcomes of women in substance abuse treatment. *Journal of Psychoactive Drugs*, SARC Supplement 5, 327-343.
- Grella, C. E.** (1999). Women in residential drug treatment: Differences by program type and pregnancy. *Journal of Health Care for the Poor & Underserved*, 10(2), 216-229.
- Grella, C. E., & Greenwell, L.** (2004). Substance abuse treatment for women: Changes in settings where women received treatment and types of services provided, 1987-1998. *Journal of Behavioral Health Services & Research*, 31(4), 367-383.
- Grella, C.E., & Greenwell, L.** (2006). Correlates of parental status and attitudes toward parenting among substance-abusing women offenders. *The Prison Journal*, 86(1), 89-113.
- Grella, C. E., & Greenwell, L.** (2007). Treatment needs and completion of community-based aftercare among substance-abusing women offenders. *Women's Health Issues*, 17(4), 244-255.
- Grella, C.E., Hser, Y.I., & Huang, Y. C.** (2006). Mothers in substance abuse treatment: Differences in characteristics based on involvement with child welfare. *Child Abuse and Neglect*, 30, 55-73.

- Grella, C. E., & Joshi, V.** (1999). Gender differences in drug treatment careers among clients in the national drug abuse treatment outcome study. *American Journal of Drug and Alcohol Abuse*, 25(3), 385-406.
- Grella, C. E., Joshi, V., & Hser, Y. I.** (2000). Program variation in treatment outcomes among women in residential drug treatment. *Evaluation Review*, 24(4), 364-383.
- Grella, C.E., & Lovinger, K.** (2011). 30-year trajectories of heroin and other drug use among men and women sampled from methadone treatment in California. *Drug and Alcohol Dependence*, 118, 251-258.
- Grella, C.E., Lovinger, K., & Warda, U.** (2013). Relationships among trauma exposure, familial characteristics, and PTSD: A case-control study of women in prison and in the general population. *Women and Criminal Justice*, 23(1), 63-79.
- Grella, C. E., Polinsky, M. L., Hser, Y. I., & Perry, S. M.** (1999). Characteristics of women-only and mixed-gender drug abuse treatment programs. *Journal of Substance Abuse Treatment*, 17(1/2), 37-44.
- Grella, C.E., & Rodriguez, L.** (2011). Motivation for treatment among women offenders in prison-based treatment and longitudinal outcomes among those who participate in community aftercare. *Journal of Psychoactive Drugs*, 43(S1), 58-67.
- Grella, C. E., Scott, C. K., & Foss, M. A.** (2005). Gender differences in long-term drug treatment outcomes in Chicago PETS. *Journal of Substance Abuse Treatment*, 28(2S), S3-S12.
- Grella, C. E., Scott, C. K., Foss, M., & Dennis, M. L.** (2008). Gender similarities and differences in the treatment, relapse, and recovery cycle. *Evaluation Review*, 32(1), 113-137.
- Grella, C. E., Scott, C. K., Foss, M. A., Joshi, V., & Hser, Y.** (2003). Gender differences in drug treatment outcomes among participants in the Chicago Target Cities Study. *Evaluation and Program Planning*, 26(3), 297-310.
- Grella, C. E., & Stein, J. S.** (2013). Remission from substance dependence: Differences between individuals in a general population longitudinal survey who do and do not seek help. *Drug and Alcohol Dependence*.
- Grella, C.E., Stein, J.A., & Greenwell, L.** (2005). Associations among childhood trauma, adolescent problem behaviors, and adverse adult outcomes in substance-abusing women offenders. *Psychology of Addictive Behaviors*, 19(1), 43-53.
- Guydish, J., Chan, M., Bostrom, A., Jessup, M. A., Davis, T. B., & Marsh, C.** (2011). A randomized trial of probation case management for drug-involved women offenders. *Crime & Delinquency*, 57(2) 167-198.
- Guyon, L., Brochu, S., Parent, I., & Desjardins, L.** (1999). At-risk behaviors with regard to HIV and addiction among women in prison. *Women & Health*, 29(3), 49-66.
- Haller, D. L., Miles, D. R., & Dawson, K. S.** (2003). Factors influencing treatment enrollment by pregnant substance abusers. *American Journal of Drug and Alcohol Abuse*, 29(1), 117-131.

Handmaker, N. S., Miller, W. R., & Manicke, M. (1999). Findings of a pilot study of motivational interviewing with pregnant drinkers. *Journal of Studies on Alcohol*, 60(2), 285-287.

Hien, D. A., Jiang, H., Campbell, A. N., Hu, M. C., Miele, G. M., Cohen, L. R., Nunes, E. V. (2010). Do treatment improvements in PTSD severity affect substance use outcomes? A secondary analysis from a randomized clinical trial in NIDA's Clinical Trials Network. *American Journal of Psychiatry*, 167(1), 95-101.

Hien, D. A., Wells, E. A., Jiang, H., Suarez-Morales, L., Campbell, A. N., Cohen, L. R., Nunes, E. V. (2009). Multisite randomized trial of behavioral interventions for women with co-occurring PTSD and substance use disorders. *Journal of Consulting and Clinical Psychology*, 77(4), 607-619.

Hodgins, D. C., el-Guebaly, N., & Addington, J. (1997). Treatment of substance abusers: Single or mixed gender programs? *Addiction*, 92(7), 805-812.

Howell, E. M., Heiser, N., & Harrington M. (1999). A review of recent findings on substance abuse treatment for pregnant women. *Journal of Substance Abuse Treatment*, 16(3), 195-219.

Hser, Y. I., Evans, E., Huang, D., & Messina, N. (2011). Long-term outcomes among drug-dependent mothers treated in women-only versus mixed-gender programs. *Journal of Substance Abuse Treatment*, 41(2), 115-123.

Hser, Y. I., Huang, D., Teruya, C., & Anglin, M. D. (2004). Gender differences in treatment outcomes over a three-year period: A path model analysis. *Journal of Drug Issues*, 34(2), 419-439.

Hser, Y. I., Hunt, S. A., Evans, E., Chang, Y. J., & Messina, N. P. (2012). Hispanic parenting women in women-only versus mixed-gender drug treatment: A 10-year prospective study. *Addictive Behaviors*, 37(6), 729-735.

Hughes, P. H., Coletti, S. D., Neri, R. L., Urmann, C. F., Stahl, S., Sicilian, D. M., & Anthony, J. C. (1995). Retaining cocaine abusing women in a therapeutic community: The effect of a child live-in program. *American Journal of Public Health*, 85, 1149-1152.

Humphreys, K., Mavis, B., & Stofflemayr, B. (1991). Factors predicting attendance at self-help groups after substance abuse treatment: Preliminary findings. *Journal of Consulting and Clinical Psychology*, 59(4), 591-593.

Hutton, H. E., Treisman, G. J., Hunt, W. R., Fishman, M., Kendig, N., Swetz, A., & Lyketsos, C. G. (2001). HIV risk behaviors and their relationship to posttraumatic stress disorder among women prisoners. *Psychiatric Services*, 52(4), 508-513.

Jessup, M. A., & Brindis, C. D. (2005). Issues in reproductive health and empowerment in perinatal women with substance use disorders. *Journal of Addictions Nursing*, 16, 97-105.

Jessup, M. A., Humphreys, J. C., Brindis, C. D., & Kathryn, A. L. (2003). Extrinsic barriers to substance abuse treatment among pregnant drug dependent women. *Journal of Drug Issues*, 33(2), 285-304.

Johnson, R. E., Jones, H. E., Jasinski, D. R., Svikis, D., Haug, N. A., Jansson, L. M., Lester, B. M. (2001). Buprenorphine treatment of pregnant opioid-dependent women: Maternal and neonatal outcomes. *Drug and Alcohol Dependence*, 63(1), 97-103.

Jones, H. E., Haug, N., Silverman, K., Stitzer, M., & Svikis, D. (2001). The effectiveness of incentives in enhancing treatment attendance and drug abstinence in methadone-maintained pregnant women. *Drug and Alcohol Dependence*, 61(3), 297-306.

Jones, H. E., Haug, N. A., Stitzer, M. L., & Svikis, D. S. (2000). Improving treatment outcomes for pregnant drug-dependent women using low-magnitude voucher incentives. *Addictive Behaviors*, 25(2), 263-267.

Jones, H. E., Heil, S. H., Baewert, A., Arria, A. M., Kaltenbach, K., Martin, P. R., Fischer G. (2012). Buprenorphine treatment of opioid-dependent pregnant women: A comprehensive review. *Addiction*, 107(Suppl 1), 5-27.

Jones, H. E., Svikis, D., Rosado, J., Tuten, M., & Kulstad, J. L. (2004). What if they do not want treatment? Lessons learned from intervention studies of non-treatment-seeking, drug-using pregnant women. *American Journal on Addictions*, 13(4), 342-357.

Jordan, B. K., Federman, E. B., Burns, B. J., Schlenger, W. E., Fairbank, J. A., & Caddell, J. M. (2002). Lifetime use of mental health and substance abuse treatment services by incarcerated women felons. *Psychiatric Services*, 53, 317-325.

Kaltenbach, K., Berghella, V., & Finnegan, L. (1998). Opioid dependence during pregnancy. Effects and management. *Obstetrics and Gynecology Clinics of North America*, 25, 139-151.

Kaskutas, L. A., Khang, L., French, M. T., & Witbrodt, J. (2005). Women's programs versus mixed-gender day treatment: Results from a randomized study. *Addiction*, 100, 60-69.

Killeen, T. K., Greenfield, S. F., Bride, B. E., Cohen, L., Gordon, S. M., & Roman, P. M. (2011). Assessment and treatment of co-occurring eating disorders in privately funded addiction treatment programs. *American Journal on Addictions*, 20(3), 205-211.

Knight, D. K., & Wallace, G. (2003). Where are the children? An examination of children's living arrangements when mothers enter residential drug treatment. *Journal of Drug Issues*, 33, 305-324.

Lanehart, R. E., Clark, H. B., Rollings, J. P., Haradon, D. K., & Scrivner, L. (1996). The impact of intensive case-managed intervention on substance-using pregnant and postpartum women. *Journal of Substance Abuse*, 8(4), 487-495.

Langan, N. P., & Pelissier, B. M. (2001). Gender differences among prisoners in drug treatment. *Journal of Substance Abuse*, 13, 291-301.

Lundgren, L., Schilling, R., Fitzgerald, T., Amodeo, M, & Davis, K. (2003). Parental status differences of women injection drug users and entry to methadone maintenance. *Substance Use & Misuse*, 38(8), 1109-1132.

Magura, S., Kang, S., Shapiro, J., & O'Day, J. (1993). HIV risk among women injecting drug users who are in jail. *Addiction*, 88(10), 1351-1360.

Marsch, L. A., Bickel, W. K., Badger, G. J., & Jacobs, E. A. (2005). Buprenorphine treatment for opioid dependence: The relative efficacy of daily, twice and thrice weekly dosing. *Drug and Alcohol Dependence*, 77(2), 195-204.

Marsh, J. C., Cao, D., & D'Aunno, T. (2004). Gender differences in the impact of comprehensive services in substance abuse treatment. *Journal of Substance Abuse Treatment*, 27(4), 289-300.

Marsh, J. C., D'Aunno, T. A., & Smith, B. D. (2000). Increasing access and providing social services to improve drug abuse treatment for women with children. *Addiction*, 95(8), 1237-1247.

McHugh, R. K., Devito, E. E., Dodd, D., Carroll, K. M., Potter, J. S., Greenfield, S. F., Weiss, R. D. (2013). Gender differences in a clinical trial for prescription opioid dependence. *Journal of Substance Abuse Treatment*.doi: 10.1016/j.jsat.2012.12.007. [Epub ahead of print]

McHugh, R. K., & Greenfield, S. F. (2010). Psychiatric symptom improvement in women following group substance abuse treatment: Results from the women's recovery group study. *Journal of Cognitive Psychotherapy*, 24(1), 26-36.

McHugo, G. J., Kammerer, N., Jackson, E. W., Markoff, L. S., Gatz, M., Larson, M. J., Hennigan, K. (2005). Women, co-occurring disorders, and violence study: Evaluation design and study population. *Journal of Substance Abuse Treatment*, 28(2), 91-107.

McKay, J. R., Lynch, K. G., Pettinati, H. M., & Shepard, D. S. (2003). An examination of potential sex and race effects in a study of continuing care for alcohol- and cocaine-dependent patients. *Alcoholism: Clinical and Experimental Research*, 27(8), 1321-1323.

McMahon, T. J., & Luthar, S. S. (2000). Women in treatment: Within-gender differences in the clinical presentation of opioid-dependent women. *Journal of Nervous and Mental Disease*, 188(10), 679-687.

McMahon, T. J., Winkel, J. D., Suchman, N. E., & Luthar, S. S. (2002). Drug dependence, parenting responsibilities, and treatment history: Why doesn't mom go for help? *Drug and Alcohol Dependence*, 65, 105-114.

Messina, N., Burdon, W., Hagopian, G., & Prendergast, M. (2004). One year return to custody rates among co-disordered offenders. *Behavioral Sciences and the Law*, 22, 503-518.

Messina, N., Burdon, W., & Prendergast, M. (2003). Assessing the needs of women in institutional therapeutic communities. *Journal of Offender Rehabilitation*, 37(2), 89-106.

Messina, N., Calhoun, S., & Warda, N. (2012). Gender-responsive drug court treatment: A randomized controlled trial. *Criminal Justice & Behavior*, 39(12), 1539-1558.

Messina, N., & Grella, C. (2006). Childhood trauma and women's health in a California prison population. *American Journal of Public Health*, 96(10), 1842-1848.

Messina, N., Grella, C., Cartier, J., & Torres, S. (2010). A randomized experimental study of gender-responsive substance abuse treatment for women in prison. *Journal of Substance Abuse Treatment*, 38, 97-107.

Messina, N., Wish, E., & Nemes, S. (2000). Predictors of treatment outcomes in men and women admitted to a therapeutic community. *American Journal of Drug and Alcohol Abuse*, 26(2), 207-227.

Millay, T. A., Satyanarayana, V. A., O'Leary, C. C., Crecelius, R., & Cottler, L. B. (2009). Risky business: Focus-group analysis of sexual behaviors, drug use and victimization among incarcerated women in St. Louis. *Journal of Urban Health*, 86(5), 810-817.

Moos, R. H., Moos, B. S., & Timko, C. (2006). Gender, treatment and self-help in remission from alcohol use disorders. *Clinical Medicine & Research*, 4(3), 163-174.

Morrissey, J. P., Jackson, E. W., Ellis, A. R., Amaro, H., Brown, V. B., & Najavits, L. M. (2005). Twelve-month outcomes of trauma-informed interventions for women with co-occurring disorders. *Psychiatric Services*, 56(10), 1213-1222.

Mullings, J. L., Hartley, D. J., & Marquart, J. W. (2004). Exploring the relationship between alcohol use, childhood maltreatment, and treatment needs among female prisoners. *Substance Use & Misuse*, 39(2), 277-305.

Najavits, L. M. (2002). *Seeking Safety: A treatment manual for PTSD and substance abuse*. New York: Guilford Press.

Najavits, L. M., Harned, M. S., Gallop, R. J., Butler, S. F., Barber, J. P., Thase, M. E., & Crits-Christoph, P. (2007a). Six-month treatment outcomes of cocaine-dependent patients with and without PTSD in a multisite national trial. *Journal of Studies on Alcohol and Drugs*, 68(3), 353-361.

Najavits, L. M., Rosier, M., Nolan, A. L., & Freeman, M. C. (2007b). A new gender-based model for women's recovery from substance abuse: Results of a pilot outcome study. *American Journal of Drug and Alcohol Abuse*, 33(1), 5-11.

Najavits, L. M., Weiss, R. D., Shaw, S. R., & Muenz, L. R. (1998). "Seeking safety": Outcome of a new cognitive-behavioral psychotherapy for women with posttraumatic stress disorder and substance dependence. *Journal of Traumatic Stress*, 11(3), 437-456.

National Survey on Drug Use and Health (NSDUH). (2012). Half of women on probation or parole experience mental illness. Rockville, MD: Center for Behavioral Health Statistics and Quality: Data Spotlight, Substance Abuse & Mental Health Services Administration.

Niv, N., & Hser, Y. I. (2007). Women-only and mixed-gender drug abuse treatment programs: Service needs, utilization and outcomes. *Drug and Alcohol Dependence*, 87(2-3), 194-201.

Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration. (2006). Treatment Episode Data Set (TEDS) Highlights - 2005 national admissions to substance abuse treatment services: 1995-2005. Rockville, MD: U.S. Department of Health and Human Services. Retrieved from <http://oas.samhsa.gov/teds2k5/TEDSHi2k5.htm>

Olmstead, T., & Sindelar, J. (2004). To what extent are key services offered in treatment programs for special populations? *Journal of Substance Abuse Treatment*, 27, 9-15.

Ondersma, S. J., Winhusen, T., Erickson, S. J., Stine, S. M., & Wang, Y. (2009). Motivation enhancement therapy with pregnant substance-abusing women: Does baseline motivation moderate efficacy? *Drug and Alcohol Dependence*, 101(1-2), 74-79.

Oser, C., Knudsen, H., Staton-Tindall, M., & Leukefeld, C. (2009). The adoption of wraparound services among substance abuse treatment organizations serving criminal offenders: The role of a women-specific program. *Drug and Alcohol Dependence*, 103(Suppl 1), S82-S90.

Padgett, D. K., Hawkins, R. L., Abrams, C., & Davis, A. (2006). In their own words: Trauma and substance abuse in the lives of formerly homeless women with serious mental illness. *American Journal of Orthopsychiatry*, 76, 461-467.

Pelissier, B., & Jones, N. (2005). A review of gender differences among substance abusers. *Crime & Delinquency*, 51(3), 343-372.

Pettinati, H. M., Dundon, W., & Lipkin, C. (2004). Gender differences in response to sertraline pharmacotherapy in Type A alcohol dependence. *American Journal on Addictions*, 13, 236-247.

Pettinati, H. M., Kampman, K. M., Lynch, K. G., Suh, J. J., Dackis, C. A., Oslin, D. W., & O'Brien C. P. (2007). Gender differences with high-dose naltrexone in the patients with co-occurring cocaine and alcohol dependence. *Journal of Substance Abuse Treatment*, 34(4), 378-390.

Plugge, E., Douglas, N., & Fitzpatrick, R. (2008). Imprisoned women's concepts of health and illness: The implications for policy on patient and public involvement in healthcare. *Journal of Public Health Policy*, 29(4), 424-439.

Plugge, E., Douglas, N., & Fitzpatrick, R. (2011). Changes in health-related quality of life following imprisonment in 92 women in England: A three month follow-up study. *International Journal for Equity in Health*, 10:21.

Plugge, E., & Fitzpatrick, R. (2005). Assessing the health of women in prison: A study from the United Kingdom. *Health Care for Women International*, 26, 62-68.

Plugge, E.H., Foster, C.E., Yudkin, P.L., & Douglas, N. (2009). Cardiovascular disease risk factors and women prisoners in the UK: The impact of imprisonment. *Health Promotion International*, 24(4), 334-343.

Prendergast, M. L., Messina, N. P., Hall, E. A., & Warda, U. S. (2011). The relative effectiveness of women-only and mixed-gender treatment for substance-abusing women. *Journal of Substance Abuse Treatment*, 40(4), 336-348.

Rubin, A., Stout, R. L., & Longabaugh, R. (1996). Gender differences in relapse situations. *Addiction*, 91(Suppl), 111-120.

Sacks, J. Y. (2004). Women with co-occurring substance use and mental disorders (COD) in the criminal justice system: A research review. *Behavioral Sciences and the Law*, 22(4), 449-466.

Sacks, J. Y., McKendrick, K., & Banks, S. (2007). The impact of early trauma and abuse on residential substance abuse treatment outcomes for women. *Journal of Substance Abuse Treatment*, 34(1), 90-100.

Sacks, S., Sacks, J. Y., McKendrick, K., Pearson, F. S., Banks, S., & Harie, M. (2004). Outcomes from a therapeutic community for homeless addicted mothers and their children. *Administration and Policy in Mental Health*, 31(4), 313-338.

Sanders, L. M., Trinh, C., & Sherman, B. R. (1998). Assessment of client satisfaction in a peer counseling substance abuse treatment program for pregnant and postpartum women. *Evaluation and Program Planning*, 21, 287-296.

Satre, D. D., Blow, F. C., Chi, F. W., & Weisner, C. (2007). Gender differences in seven-year alcohol and drug treatment outcomes among older adults. *American Journal on Addictions*, 16(3), 216-221.

Satre, D. D., Mertens, J. R., Aream, P. A., & Weisner, C. (2004). Five-year alcohol and drug treatment outcomes of older adults versus middle-aged and younger adults in a managed care program. *Addiction*, 99(10), 1286-1297.

Saum, C., Hiller, M., Leigey, M., Inciardi, J., & Surratt, H. (2007). Predictors of substance abuse treatment entry for crime-involved, cocaine-dependent women. *Drug and Alcohol Dependence*, 91(2/3), 253-259.

Saunders, B., Baily, S., Phillips, M., & Allsop, S. (1993). Women with alcohol problems: Do they relapse for reasons different to their male counterparts? *Addiction*, 88(10), 1413-1422.

Schilling, R., El-Bassel, N., Ivanoff, A., Gilbert, L., Su, K. H., & Safyer, S. M. (1994). Sexual risk behavior of incarcerated, drug-using women, 1992. *Public Health Reports*, 109(4), 539-547.

Schilling, R.F., Mares, A.S., & El-Bassel, N. (2004). Women in detoxification: Loss of guardianship of their children. *Children and Youth Services Review*, 26(5), 463-480.

Schmidt, L., & Weisner, C. (1995). The emergence of problem-drinking women as a special population in need of treatment. In M. Galanter (Ed.), *Recent developments in alcoholism*, Vol. 12: Alcoholism and women (pp. 309-334). New York: Plenum Press.

Scott, C. K., & Dennis, M. L. (2012). The first 90 days following release from jail: Findings from the recovery management checkups for women offenders (RMCWO) experiment. *Drug and Alcohol Dependence*, 125, 110-118.

Shah, S., Plugge, E. H., & Douglas, N. (2011). Ethnic differences in the health of women prisoners. *Public Health*, 125(6), 349-356.

Simoni-Wastila, L., Ritter, G., & Strickler, G. (2004). Gender and other factors associated with the nonmedical use of abusable prescription drugs. *Substance Use & Misuse*, 39, 1-23.

Simoni-Wastila, L., & Yang, H. K. (2006). Psychoactive drug abuse in older adults. *American Journal of Geriatric Pharmacotherapy*, 4(4), 380-394.

Smith, B. D., & Marsh, J. C. (2002). Client-service matching in substance abuse treatment for women with children. *Journal of Substance Abuse Treatment*, 22(3), 161-168.

Staton, M., Leukefeld, C., & Logan, T. K. (2001). Health service utilization and victimization among incarcerated female substance users. *Substance Use & Misuse*, 36, 701-716.

Staton, M., Leukefeld, C., & Webster, J.M. (2003). Substance use, health, and mental health: Problems and service utilization among incarcerated women. *International Journal of Offender Therapy and Comparative Criminology*, 47(2), 224-239.

Stevens, S. J., & Patton, T. (1998). Residential treatment for drug addicted women and their children: Effective treatment strategies. *Drugs & Society*, 13(1-2), 235-249.

Stewart, D., Gossop, M., Marsden, J., Kidd, T., & Treacy, S. (2003). Similarities in outcomes for men and women after drug misuse treatment: Results from the National Treatment Outcome Research Study (NTORS). *Drug and Alcohol Review*, 22, 35-41.

Stoller, N. (2000). Improving access to health care for California's women prisoners. The California program on access to care. Retrieved from <http://www.ucop.edu/cprc>.

Strantz, I. H., & Welch, S. P. (1995). Postpartum women in outpatient drug abuse treatment: Correlates of retention/completion. *Journal of Psychoactive Drugs*, 27(4), 357-373.

Substance Abuse and Mental Health Services Administration. National Survey of Substance Abuse Treatment Services (N-SSATS): 2011. (2012). Data on substance abuse treatment facilities (BHSIS Series: S-64, HHS Publication No. [SMA] 12-4730). Rockville, MD: Substance Abuse and Mental Health Services Administration, 2012. Retrieved from: http://www.samhsa.gov/data/DASIS/2k11nssats/NSSATS_2011Chp4.htm#ClientTypes

Sun, A. (2006). Program factors related to women's substance abuse treatment retention and other outcomes: A review and critique. *Journal of Substance Abuse Treatment*, 30(1), 1-20.

Svikis, D. S., Golden, A. S., Huggins, G. R., Pickens, R. W., McCaul, M. E., Velez, M. L., Ball, C. E. (1997a). Cost-effectiveness of treatment for drug-abusing pregnant women. *Drug and Alcohol Dependence*, 45, 105-113.

Svikis, D. S., Lee, J. H., Haug, N. A., & Stitzer, M. L. (1997b). Attendance incentives for outpatient treatment: Effects in methadone- and nonmethadone-maintained pregnant drug dependent women. *Drug and Alcohol Dependence*, 48(1), 33-41.

Szuster, R. R., Rich, L. L., Chung, A., & Bisconer, S. W. (1996). Treatment retention in women's residential chemical dependency treatment: The effect of admission with children. *Substance Use & Misuse*, 31, 1001-1013.

Tang, Z., Claus, R. E., Orwin, R. G., Kissin, W. B., & Arreira, C. (2012). Measurement of gender-sensitive treatment for women in mixed-gender substance abuse treatment programs. *Drug and Alcohol Dependence*, 123(1-3), 160-166.

Teplin, L. A., Abram, K. M., & McClelland, G. M. (1996). Prevalence of psychiatric disorders among incarcerated women. *Archives of General Psychiatry*, 53, 505-512.

Thom, B. (1987). Sex differences in help-seeking for alcohol problems: II. Entry into treatment. *British Journal of Addiction*, 82(9), 989-997.

Timko, C., Finney, J. W., & Moos, R. H. (2005). The 8-year course of alcohol abuse: Gender differences in social context and coping. *Alcoholism: Clinical and Experimental Research*, 29(4), 612-621.

Timko, C., Moos, R. H., Finney, J. W., & Connell, E.G. (2002). Gender differences in help-utilization and the 8-year course of alcohol abuse. *Addiction*, 97(7), 877-889.

Tinney, S. M., Oser, C. B., Johnson, J. A., & Roman, P. M. (2004). Predominantly female caseloads: Identifying organizational correlates in private substance abuse treatment centers. *Journal of Behavioral & Health Services Research*, 31(4), 403-417.

Tracy, E. M., Laudet, A. B., Min, M. O., Kim, H., Brown, S., Jun, M. K., & Singer, L. (2012). Prospective patterns and correlates of quality of life among women in substance abuse treatment. *Drug and Alcohol Dependence*, 124(3), 242-249.

Tracy, E. M., & Martin, T. C. (2007). Children's roles in the social networks of women in substance abuse treatment. *Journal of Substance Abuse Treatment*, 32(1), 81-88.

Tuten, M., Fitzsimons, H., Chisolm, M. S., Nuzzo, P. A., & Jones, H. E. (2012). Contingent incentives reduce cigarette smoking among pregnant, methadone-maintained women: Results of an initial feasibility and efficacy randomized clinical trial. *Addiction*, 107(10), 1868-1877.

Tuten, M., & Jones, H. E. (2003). A partner's drug-using status impacts women's drug treatment outcome. *Drug and Alcohol Dependence*, 70(3), 327-330.

Tuten, M., Jones, H. E., Tran, G., & Svikis, D. S. (2004). Partner violence impacts the psychosocial and psychiatric status of pregnant, drug-dependent women. *Addictive Behavior*, 29(5), 1029-1034.

Uziel-Miller, N. D., & Lyons, S. S. (2000). Specialized substance treatment for women and their children: An analysis of program design. *Journal of Substance Abuse Treatment*, 19, 355-367.

Vasilaki, E. I., Hosier, S. G., & Cox, W. M. (2006). The efficacy of motivational interviewing as a brief intervention for excessive drinking: A meta-analytic review. *Alcohol and Alcoholism*, 41(3), 328-335.

Velasquez, M. M., von Sternberg, K., Mullen, P. D., Carbonari, J. P., & Kan, L.Y. (2007). Psychiatric distress in incarcerated women with recent cocaine and alcohol abuse. *Women's Health Issues*, 17(4), 264-272.

Vlahov, D., Brewer, T. F., Castro, K. G., Narkunas, J. P., Salive, M. E., Ullrich, J., & Munoz, A. (1991). Prevalence of antibody to HIV-1 among entrants to US correctional facilities. *Journal of the American Medical Association*, 265(9), 1129-1132.

Volpicelli, J. R., Markman, I., Monterosso, J., Filing, J., & O'Brien, C. P. (2000). Psychosocially enhanced treatment for cocaine-dependent mothers: Evidence of efficacy. *Journal of Substance Abuse Treatment*, 18(1), 41-49.

Walitzer, K. S., & Dearing, R. (2006). Gender differences in alcohol and substance use relapse. *Clinical Psychology Review*, 26, 128-148.

Watkins, K. E., Shaner, A., & Sullivan, G. (1999). The role of gender in engaging the dually diagnosed in treatment. *Community Mental Health Journal*, 35, 115-126.

Wechsberg, W. M., Craddock, S. G., & Hubbard, R. L. (1998). How are women who enter substance abuse treatment different than men? A gender comparison from the Drug Abuse Treatment Outcome Study (DATOS). *Drugs & Society*, 13(1/2), 97-115.

Weisdorf, T., Parran, T. V., Graham, A., & Snyder, C. (1999). Comparison of pregnancy-specific interventions to a traditional treatment program for cocaine-addicted pregnant women. *Journal of Substance Abuse Treatment*, 16, 39-45.

Weisner, C. (1993). Toward an alcohol treatment entry model: A comparison of problem drinkers in the general population and in treatment. *Alcoholism: Clinical and Experimental Research*, 17(4), 746-752.

Weisner, C., & Schmidt, L. (1992). Gender disparities in treatment for alcohol problems. *JAMA*, 268(14), 1872-1876.

Wilke, D. J., Kamata, A., & Cash, S. J. (2005). Modeling treatment motivation in substance-abusing women with children. *Child Abuse & Neglect*, 29, 1313-1323.

Wingfield, K., & Klempner, T. (2000). What works in women-oriented treatment for substance abusing mothers. In M. P. Kluger & G. Alexander (Eds.), *What works in child welfare* (pp. 311-319). Washington, DC: Child Welfare League of America, Inc.

Wobie, K., Eyler, F. D., Conlon, M., Clarke, L., & Behnke, M. (1997). Women and children in residential treatment: Outcomes for mothers and their infants. *Journal of Drug Issues*, 27(3), 585-606.

Yeom, H. S., & Shepard, D. S. (2007). Cost-effectiveness of a mixed-gender aftercare program for substance abuse: Decomposing measured and unmeasured gender differences. *Journal of Mental Health Policy Economics*, 10(4), 207-219.

Zlotnick, C., Franchino, K., St. Claire, N., Cox, K., & St. John, M. (1996). The impact of outpatient drug services on abstinence among pregnant and parenting women. *Journal of Substance Abuse Treatment*, 13(3), 195-202.

Zywiak, W. H., Stout, R. L., Trefry, W. B., Glasser, I., Connors, G. J., Maisto, S. A., & Westerberg, V. S. (2006). Alcohol relapse repetition, gender, and predictive validity. *Journal of Substance Abuse Treatment*, 30(4), 349-353.

Sex differences in barriers to accessing substance abuse treatment, a qualitative study

Gail Gilchrist (1), Alicia Blazquez (1), Alba Pons Rabasa (2), Marta Coronado (2), Joan Colom (3), Marta Torrens (1)

(1) Research Institut. Hospital del Mar (IMIM). Barcelona

(2) Asociación Interferències

(3) Program on Substance Abuse. Public Health Agency of Catalonia. Barcelona.

Background

Barriers to accessing substance abuse treatment

In Spain, one of the key objectives of the National Strategy on Drugs 2009-2016 and the Action Plan on Drugs 2009-2012 is to improve access to substance abuse treatment and to increase gender-specific care programmes for clients. In order to do this, understanding the barriers that limit access to treatment for both male and female substance users was very important.

Reported barriers include: lack of motivation, belief that the quality of treatment is poor or ineffective, location of services, stigma, negative staff attitudes, poor health, and concerns about treatment access - e.g. assessment, appointments, referrals etc. - (Neale et al., 2008).

A recent study (Improvement of Access to Treatment for People with Alcohol and Drug Related Problems, IATPAD Project) on patients who were receiving treatment for substance abuse in two care centres for drug addiction (CAS) in Barcelona reported that the barriers to accessing treatment may be personal (acceptance of the problem, motivation to seek treatment, etc.) and/or systemic (opening hours, waiting lists, length of consultation with the professional, location, etc.). Participants described the importance of recommendations from other users of the service, previous experiences of treatment, and the visibility of services in contributing to their decision to seek treatment (Gilchrist et al., 2011; Fonseca et al., 2012).

However, this study did not consider users who were not seeking or receiving treatment at CAS, nor did it analyze the results by gender. Furthermore, the study included only service users from Barcelona and therefore, the opinions and experiences of users from outside of Barcelona remain unknown.

Objectives

- 1 To determine the barriers to accessing substance abuse treatment among substance users who were not receiving or seeking treatment in care centres for drug addictions (CAS).
- 2 To examine sex differences in the barriers reported.

Methodology

Design

In-depth qualitative interviews were conducted.

Methods

A “purposive sample” (Pope and Mays, 1995) in which effort was made to include “atypical values” was generated, stratified by factors of influence including sex, the substances that were object of abuse, age, history of treatment, and the referral source to generate the maximum range of perspectives and experiences, and to reach saturation (or the point at which no new information/matter is observed in the data), which usually occurs with 12-15 interviews (Guest et al., 2006).

Participants

Users of both licit and illicit substances were eligible to enter the study. Patients were eligible if they had been referred to a CAS by mental health centres, primary healthcare centres, psychiatric liaison services, emergency units or harm reduction centres, but who had not attended their appointment or had failed to engage with the CAS or who were in treatment for the use of one substance but who continued to use another substance for which they were not receiving treatment were invited to participate, or who were in treatment for the use of one substance but who continued to use another substance for which they were not receiving treatment.

It was proposed to recruit a convenience sample of 40 participants (20 men and 20 women) from a total of 39 centres in Catalonia, Spain (table 1). The selected centres were informed of the objectives of the study.

Analysis

The qualitative interviews were recorded and transcribed verbatim. The data were organized and coded using NVivo 8 software by GG and AB.

A qualitative research framework approach was used for the analysis: familiarisation, identifying a thematic framework, indexing, charting and mapping and interpretation (Pope et al., 2000). Attention was paid to analysis of “deviant” cases (i.e. those that contradicted “the emerging explanation of the phenomenon being studied” (Pope et al., 2000) to “refine the analysis to the point that it can explain all or the vast majority of the cases under scrutiny” (Pope et al., 2000)).

Study	Females sought	Females recruited	Males sought	Males recruited
Harm reduction centres	4	6	4	2
Primary healthcare centres (PHC)	4	2	4	4
Adult mental health centres (AMHC)	4	2	4	2
Emergency Units	4	0	4	5
Psychiatric Liaison	4	1	4	3
Total	20	11	20	16

Table 1. Centres Number of participants sought and recruited by centre and sex

Results

Twenty seven participants were recruited from 25 of the 39 centres included in the study. In the remaining 14 centres, participants did not present for interview on the date arranged in 7 centres and the remaining 7 centres reported that they did not have any eligible patients (Table 1).

Of the 27 participants interviewed, 6 had been referred to the CAS but had never attended; 9 had been referred to the CAS but had not been linked to treatment (despite having attended at least one appointment), and 12 were receiving treatment for one of the substances they were using but not for another/ others (Table 2).

Barriers to entering treatment

Both individual and service barriers to entering treatment were identified (see Table 3, below). The main barriers included lack of motivation and denial of having a substance abuse problem that requires treatment, waiting time to enter treatment, negative staff attitudes, stigma and fear of treatment failure based on previous treatment attempts.

Individual barriers

Lack of recognition of problem

Participants identified that a lack of recognition of the problem “*it’s not that serious*” or “*I don’t need it so much*” (ID 16, Male, 35 years old, Emergency Unit) resulted in not seeking treatment. “*Because I hadn’t looked for (treatment), I’d never worried about my habit, I didn’t care, if I’ve got some, then I’ll have a smoke*” (ID 9, Female, 19 years old, PHC)

Motivation and willpower

Many commented that there were no barriers to accessing treatment other than the substance abuser themselves, who often lacked motivation to enter and remain in treatment. “*Whenever I’ve asked for treatment they’ve given it to me...*

Group*	ID	Sex	Age	Receiving treatment in a CAS	Present use	Referring centre
1	1	Female	27	No	Heroin/ Cocaine	Harm reduction
1	2	Male	48	No	Heroin/ Cocaine	Harm reduction
1	3	Female	48	No	Alcohol	AMHC
2	4	Female	45	No	Cocaine	Psychiatric liaison
2	5	Female	42	No	Heroin/ Cocaine/ Alcohol	Harm reduction
2	6	Female	25	No	Heroin	Harm reduction
2	7	Female	27	No	Heroin/ Cocaine	Harm reduction
2	8	Male	60	No	Alcohol	PHC
1	9	Female	19	Yes (cocaine/ alcohol)	Cocaine/ Marijuana	PHC
1	10	Male	38	Yes (heroin)	Cocaine/ Alcohol	Emergency unit
3	11	Female	43	No	Heroin/ Cocaine	Harm reduction
2	12	Female	33	Yes (heroin)	Heroin/ Cocaine	AMHC
3	13	Female	24	Yes (heroin)	Marijuana/ Designer drugs	Harm reduction
3	14	Male	38	Yes (heroin)	Heroin	PHC
3	15	Male	2	Yes (heroin/ cocaine)	Alcohol	PHC
3	16	Male	2	Yes (heroin)	Alcohol	Emergency unit
3	17	Male	2	Yes (alcohol)	Cocaine/ Marijuana	AMHC
3	18	Male	2	Yes (alcohol)	Alcohol/ Marihuana	AMHC
3	19	Male	2	Yes (alcohol)	Alcohol	Emergency unit
3	20	Male	2	Yes (alcohol)	Heroin/ Cocaine	Emergency unit
3	21	Female	2	Yes (cocaine)	Alcohol	PHC
3	22	Male	2	Yes (alcohol)	Alcohol/ Benzodiazepines	PHC
3	23	Male	2	Yes (heroin)	Heroin/ Cocaine	Harm reduction
2	24	Male	2	No	Alcohol	Psychiatric liaison
2	25	Male	2	No	Alcohol	Psychiatric liaison
1	26	Male	2	No	Alcohol	Psychiatric liaison
2	27	Male	2	Yes (alcohol)	Alcohol	Emergency unit

Table 2. Participant information

1. Referred to CAS but had never attended.
2. Referred to CAS but had not been linked to/ engaged in treatment.
3. In treatment for one of the substances they were using, but not receiving treatment for the use of an additional substance

the thing is, they don't want to, I reckon they don't want to, because if they wanted to they'd do it, so if someone has the will power..." (ID 21, Female, 40 years old, PHC). *"There aren't any barriers, the barrier is each person's will power, if they want to do the treatment or not"* (ID 8, Male, 36 years old, PHC).

Despite the availability of help, it was recognised that it was the individual's responsibility to stop using it *"(methadone) doesn't get you off the habit, in the end I was taking methadone and using, because the taking that stuff doesn't get you off it...that's up to you"* (ID 6, Female, 25 years old, Harm Reduction Centre). *"You have to put in the will power... I reckon there are enough tools"* (ID 10, Male, 37 years old, Emergency Unit).

Furthermore, this lack of motivation or "will power" to stop using substances, often resulted in giving up treatment and a return to substance use. *"I've tried*

(treatment) but the truth is it's got so much control of my head, I start lots of times but I've never finished, I leave in a hurry, I don't go, I only think about getting drugs whatever way I can " (ID 2, Male, 48 years old, Harm Reduction Centre).

Willpower was often tested further as drugs were readily available and many continued to have drug using friends/ partners, which often "tempted" them to continue using. *"Having drugs on hand"* (ID 9, Female, 19 years old, PHC); *"For me the people who are.... let's say, close to me, right? Well lots of times I saw them with the mentality that most users have, their mind's only on taking drugs, once I'm with them the mentalities join together, accumulate, become one, and then you just think about the same thing, let's go and find this, let's go and do that"* (ID 20, Male, 40 years old, Emergency Unit). One woman talked about her lack of self-esteem affecting her ability to seek treatment, believing that she was a "nuisance" to staff. (ID 1, Female, 27 years old, Harm Reduction Centre).

Previous experience

Some had previous experience of substance abuse treatment, which in many cases, influenced their decisions to return to treatment. One woman spoke about a previous treatment experience where as a result of her involvement with the CAS, her children had been taken into care. *"Because I didn't feel good, I needed more because I had more cravings, I was explaining, you told me you can't do that, I was pregnant, I started using again and in the end they took my child away, and I don't want to go to the CAS because I don't like the CAS, things don't go well for me there "* (ID 7, Female, 27 years old, Harm Reduction Centre).

Stigma

Some participants were reluctant to enter treatment due to the stigma of having to attend a CAS. Some users *"Thought that I wasn't like them (other drug users)"* (ID 25, Male, 40 years old, Psychiatric Liaison) who were using the same services, which may act as a barrier to accessing treatment in a CAS.

"And the shame you feel when you go, you know? It affects you a lot, I don't know, you feel bad... you say, "Hell, look where I've ended up", you know? Here I am and it's... you know? In the place where people come to get methadone, you know? You think, "What am I doing here? I'm not like them! The thing is, if someone who doesn't smoke joints sees me the same way as them, I mean, if I see them that way, the people who don't smoke joints, how do they see me? " (ID 9, Female, 19 years old, PHC).

Service barriers

Negative staff attitudes

Experiencing stigma and negative attitudes or "treatment" from staff was highlighted as a barrier to treatment. *"I don't like the way they treat you (in the CAS), besides, they don't treat you properly, they treat you like that, like a drug addict, not like a person, they de-value you... they don't make you feel like a person... they make you feel like a drug addict instead of a sick person. Really, we are sick, we're*

like any other person, we have a problem but that doesn't make us a piece of shit. What do they do to make you feel that they treat you like that? The way that they talk to you, they look down on you. No, and anything that you do, they're always picking you up on it, "don't do that, you can't do that, whatever..." I don't know, they get on your back, but it's the way they talk to you, looking down on you". (ID 1, Female, 27 years old, Harm Reduction Centre).

Waiting times

While some reported they were treated “*very quickly*” (ID 11, Female, 43 years old, Harm Reduction Centre), many participants reported long waiting times to enter treatment which often resulted in their loss of motivation. “*Because they give you an appointment, you say 'I'm going', you've made up your mind, today I got up and I said, 'I don't want any more, my life is a disaster, I can't take any more', they give me an appointment in three months time but that day you want to take some, just on that day you don't want to give up the drug... you go back to ask for an appointment, they tell you they won't give you one because you always do the same thing, but it's obvious, give it to me now, let me go now. As if it wasn't hard enough to say 'I'm going to give up', help us at that moment that we decide we need it*” (ID 11, Female, 43 years old, Harm Reduction Centre). “*No, if somebody wants to get better I think it's easy for them to come here, ask for help ...when you're hooked and you're on the street you come here, they give you an appointment in two weeks' time. Man, you're on the street, you're hooked, they ought to see you there and then... but you come in off the street, on two grams a day and they tell you "wait three weeks or two weeks" and you go to shit, you fall to pieces*” (ID 16, Male, 35 years old, Emergency Unit).

Lack of flexibility

Several participants commented that in CAS there were “*lots of rules*” (ID 20, Male, 40 years old, Emergency Unit) which often served as a barrier to remaining in treatment. One man described having his methadone treatment discontinued in the CAS because of a positive urine result. While one man who was working reported organising his work around treatment appointments “*I chose a morning or afternoon that I had time off work*” (ID 22, Male, 56 years old, PHC); several male participants stated that treatment or treatment opening hours were not always suitable for those in employment.

Indeed, one participant described leaving treatment in the CAS “*Because I got a job and I can't always be leaving people, leave and say every week I have to go to the doctor, I have to go to the doctor, and in the end they find out where I go and I'm out.... It wasn't compatible, it wasn't compatible with my work hours, and that's the reason, that's the only fault, the only reason, the reason I gave up*” (ID 25, Male, 40 years old, Psychiatric Liaison). “*Well, out of laziness, because I can't be bothered. At the start you say 'OK, go on then,' you start keen enough but then you think about it and you say 'What for, they're going to have me going there every day to have a drink (methadone), they don't give it to you for the whole week, you have to go every day, and then in the end it's the same*

as using because if you have to go every day, what about work?' In what job are they going to let you go every day for half an hour to have a drink? None" (ID 6, Female, 25 years old, Harm Reduction Centre). One man complained that he needed to be registered on the electoral roll in the area where he wanted to seek treatment in the CAS "If you're not registered you can't, well.... Traps of bureaucracy." (ID 20, Male, 40years old, Emergency Unit).

Offer of treatment limited

Several participants complained that the offer of treatment for their substance use was limited, which contributed to their decision to enter or drop out of treatment. "*Methadone makes me panic... because it's one more drug for me and the craving is worse*" (ID 1, Female, 27 years old, Harm Reduction Centre). One participant described stopping methadone maintenance treatment "*all of a sudden and that made me use more, because the craving was pretty strong... because I was fed up of going to the CAS*" (ID 24, Male, 40 years old, Psychiatric Liaison). One man did not want to take medication for his alcohol problem "*Because I don't want the medication, I don't know what harm it can do*"(ID 25, Male, 40 years old, Psychiatric Liaison) and another did not want to be detoxified "*Because I was afraid of going into a hospital*" (ID 22, Male, 56 years old, PHC), and another believed there was no treatment for cocaine addiction (ID 23, Male, 42 years old, Harm Reduction Centre).

Cost of treatment

While treatment in a CAS is offered free of charge to patients, several highlighted that a barrier to accessing therapeutic communities was the cost. Also those with mental health problems highlighted the cost of medications. "*We don't have any money to buy the medication... because it's expensive too, because the pills are expensive, so sometimes it's not that we don't want to work, we're having treatment and we can't work, so they should make it easier for us to make it more affordable for... the medication, just for the users or the ones with psychotic problems like me, my pills cost me nearly 19 euros, you see? And... that's what they should do, because it's a problem, this is an illness, it's not seen. I think it's an illness, because when you're depressed, you turn to the drugs, then from the drugs you go into psychosis, it's an illness because it disconnects a nerve in your brain to take so much and you can't find a solution and so I think they should provide with the medication*" (ID 21, Female, 40 years old, PHC). "*The treatments are expensive, they're very expensive and there are people who can't afford them*" (ID 24, Male, 40 years old, Psychiatric Liaison).

Location

The location and distance required to travel to treatment centres was also seen as a potential barrier due to the expense and time required. "*I had to walk five kilometres, get on the train... and they don't pay for anything at all for you, I asked for something... a payment, they didn't give me anything so in the end I decided*

not to go" (ID 6, Female, 25, Harm Reduction Centre). *"I don't have the means to come every day, I can't. How am I going to come? I don't have a car, I don't have a motorbike, I don't have money for the bus, either. What do I do? I can't"* (ID 8, Male, 60 years old, PHC).

However, one male participant did not want to be near where he lived as a result of the temptation to use drugs and the proximity of drug using friends in their local area and would prefer to attend *"some centre where they did know my old friends or anything"* (ID 23, Male, 42 years old, Harm Reduction Centre).

Facilitators to entering treatment

Most participants had previous treatment experience for substance abuse, mainly from CAS. Individual and service facilitators for entering treatment were identified, reflecting the previously identified barriers (Table 3).

Individual facilitators

Family support/friends

Two females highlighted the *"need for lots of help from the family that supports you ...these are professionals, they're not your family, and if your family doesn't help you after this it doesn't matter how much you come here if they don't help you at home you won't get anywhere, you get home and you get depressed and carry on using, however much you take the medication"* (ID 21, Female, 40 years old, PHC). *"I'm not receiving professional help, or moral help, or help from friends, from family, nothing... The ones who help you are your family, not the doctors. If the doctors help you, you have to go for visits and all that, but it's your family that are by your bedside, giving you the pills, giving you food and seeing that you want to give up the drugs and they're the ones who value what you're doing"* (ID 11, Female, 43 years old, Harm Reduction Centre).

Reputation of service

Participants had heard about CAS through word of mouth from family and friends who had attended. Recommendations from others and what to expect from services also contributed to decisions on entering treatment *"My friends who have been through the same situation, that I see that they're well, I ask them, they tell me where they I have to go, pum , pam, pam"* (ID 2, Male, 48 years old, Harm Reduction Centre).

Knowing what to expect from treatment may facilitate treatment access as several participants described not knowing what to expect from treatment *"Let's see, I wasn't expecting it at all, because it was the first time (treatment at the CAS)... So I didn't know how it went"*(ID 3, Female, 48 years old, AMHC). One suggestion that may help users join or access treatment was *"To find out a bit... get ready for it"* (ID 17, Male, 48 years old, AMHC). Indeed, one male described being prepared for what to expect at his visit to the CAS by a worker from the Harm Reduction Centre stating *"They told me where I had to go, who I had to*

talk to, so that when I went in I was talking in an interview with Tony, I had a good interview with him and he suggested I should go to the doctor, he explained to me how it works, what times I could go, everything” (ID 8, Male, 60 years old, PHC). Another reported dropping out of treatment as it was not what he expected “Because basically when you don’t know something it’s always interesting to get to know it, to know ...what treatment you’re going to have or what’s going to happen, and then you realize that it’s not what you were expecting... you’re not keen, you don’t like it” (ID 24, Male, 40 years old, Psychiatric Liaison).

Awareness of services

While one male participant believed there was no need for “*more information, no, what more information are they going to tell you, I don’t know, it’s all been said*” (ID 15, Male, 36 years old, PHC).

Others felt that better awareness of the types of services available may facilitate treatment seeking. “*Lack of information, but information of all kinds, about the centre, and about ourselves. It’s not all one person’s fault, it has to be shared around*” (ID 26, Male, 60 years old, Psychiatric Liaison).

Service facilitators

Referrals

Being referred to a CAS by another health professional (e.g. GP, AMHC, harm reduction centre, liver specialist etc.) facilitated access. “*So if you are referred by someone it’s easy. I mean, if someone, through psychiatric emergencies, or whatever, refers you immediately... things move and you get in, you’re here and you have a visit*” (ID 15, Male, 36 years old, PHC).

Two men interviewed described how staff from the CAS came to visit them when they were inpatients to “*ask me if I was interested (in attending the CAS)... they recommended it if I want, it’s not obligatory, there’s no obligation, if I want to come to this centre... I said yes but I have to think about it properly, let’s see, at the moment I don’t feel well, I’ve got pancreatitis and it’s pretty complicated and I don’t know, let’s see what the doctor says in the end when I get out, when I’m discharged. Let’s see, it depends, now it depends*” (ID 25, Male, 40 years old, Psychiatric Liaison). Participants were often referred to CAS from AMHC or psychiatric inpatient units, following a specific incident.

Several participants had been “*sent by the courts*” (ID 3, Female, 48 years old, AMHC) to the CAS, which facilitated retention in treatment as “*until 2014, I think it is, I have to be (in treatment in the CAS)... because if not I’m going to prison*” (ID 15, Male, 36 years old, PHC). “*Well, through an episode in Accident and Emergency, with violence... arrest by the police, then everything was forced through so that I would come so I came and that’s it. If you come because you’re referred by someone it’s easy*” (ID 10, Male, 37 years old, Emergency Unit).

Coordination between services

Coordination of care between services, especially for mental health and substance abuse, facilitated access to treatment and ensured that *“they sorted everything out between... because this is a consortium and the Harm Reduction Centre and the other one sorted the whole thing out. You have to come on such and such a day... They coordinate everything. Everything is controlled between the three of them they’ve got everything under control, here everyone knows the same as everyone else (between the Harm Reduction Centre, the AMHC and the CAS)”* (ID 12, Female, 33 years old, AMHC).

Moreover, one man believed the co-location of the AMHC and CAS in the same building assisted him with accessing psychological services *“Well here (the CAS) they leave me alone a bit more because I’ve got the one from above (AMHC) and the one from above is with the one who works below (CAS)”* (ID 17, Male, 48 years old, AMHC). This was considered important as several participants described their GP as not prepared to treat their substance abuse: *“No because my doctors told me that because I was using it was something really expensive for the practice, because I was hooked on this and I didn’t... she didn’t worry about me very much.”* (ID 4, Female, 45 years old, Psychiatric Liaison). *“The GP told me if I was here (CAS) I didn’t need to go to him (PHC) for these things (treatment for substance use), because he gives me stuff for if I have some illness, if I’ve got something, but being here he knows there are doctors who... it’s not necessary for him to give me things for this (substance use)”* ID 8, Male, 60 years old, PHC.

In addition, continuity of care was important for one female participant who did not wish to disclose her history of childhood abuse to an additional staff member. Her usual psychologist was on maternity leave and she was reluctant to see another member of staff because *“the thing is I don’t want to explain my life to anybody... Well, it’s an abuse that I suffered when I was little...”* (ID 11, Female, 43 years old, Harm Reduction Centre).

Quick response

Many stressed the importance of a quick response when seeking treatment to sustain motivation to accessing treatment.

“Of course, you can’t wait a month, you can’t because you don’t know what you’re going to do in a month or how you’re going to be, when you really decide to start treatment they should give it to you at that moment because we’re like that... well, maybe it’s our problem, we’re very immediate and we want everything, but as soon as you’ve decided, they should give it to you, damn it! Because if they make you wait a month, in a month’s time probably you don’t want it” (ID 6, Female, 25 years old, Harm Reduction Centre). *“They gave me (an appointment) in a month, two months and so I forget things, but normally, I need... urgent help. When I have to wait the mind goes... but if I have to wait things change”* (ID 2, Male, 48 years old, Harm Reduction Centre).

Several women believed there was a need for a support service to maintain motivation while patients were awaiting their appointment. One woman explained that after waiting a month for an appointment, she did not go *“because I didn’t feel like it, I mean, what was I going to go there for?”* She believed that having someone

to encourage her may have helped sustain her original motivation “Someone to tell me ‘OK, come on, I’ll go with you, let’s go, I’ll take you,’ then probably I’d have gone, it would have been tough but with a bit of pushing I’d have gone, but just me on my own, since I didn’t say anything, I didn’t tell anyone I had the visit or anything, just my big sister, I said ‘Right, I’m not going, I’m not going, and that’s that” (ID 9, Female, 19 years old, PHC). “Some type of network of accompaniment, until the day of the visit arrives, to have someone you can visit, until the appointment, you’re not going to give up the drug until the day of the appointment, but someone to remind you that you have that day... I don’t know, if the specialist doctor can’t see you for three months, some kind of auxiliary who can see you before, so that you end up going on that day. Someone, that is, other visits that at least you don’t lose the idea of giving up that you had” (ID 11, Female, 43, Harm Reduction Centre). “Well, you said it before, it’s you know, the time you have to wait, you have to go on, you have to... there are lots of... it’s a lot of time that you waste because if you have to wait a week for the first visit, to go in, then you have to wait one week, two weeks or three weeks longer to start the treatment, I mean, and in that time what are you doing? For example it’s a month, a month you’re not going to use because you’re waiting, could be you end up, like I said, having an overdose, you could end up in jail. What will happen to you? What will happen in your life? You waste time. We’re wasting enough time when we use, I don’t mean you have to go the first day and they give it (treatment) to you, no, but come on, a week, three weeks, that’s a long time because we change quickly, and when you ask for help it’s because you don’t feel well, you can’t take any more” (ID 7, Female, 27 years old, Harm Reduction Centre).

Positive staff encounters

Many commented that a positive relationship with staff facilitated treatment access and retention. “The first time you go to a CAS you should feel ok, you should feel good, not feel like... a leper or something like that” (ID 21, Female, 40 years old, PHC). “The relationship with the professionals is pretty good, they help you all they can but that’s it, it doesn’t go any further” (ID 24, Male, 40 years old, Psychiatric Liaison). “They give you a warm welcome, they’re polite, they’re friendly, they don’t look down on you for the way you’re dressed or how clean you are and so on” (ID 18, Male, 36 years old, AMHC). “I see very human treatment with the people here, you know? At no time do you feel like a... I don’t know, the people treat you well, I don’t know, I don’t see a treatment... I don’t know of..., professional to patient, you know? I see a very, very human treatment and, I don’t know, we’re very apprehensive people, you know? Straight away we’d see that mistake and it’s... and I don’t see that mistake, you know? I see the people very... I don’t know.. very willing to help the people who come, so if sometimes it doesn’t work I think that it’s something more personal, it works as far as you want it to work, I don’t know, we haven’t... it’s (treatment) always worked for me whenever I’ve wanted it to, when I didn’t want it to it didn’t work... I see that the people make an effort from the first moment until... you always get on better with some than with others, right? But all of them... yes, they make an effort, people who make an effort, you know? You see it and you notice it, from your position you notice it and that’s why... you keep coming, right? If not, you wouldn’t come” (ID 16, Male, 35 years old, Emergency Unit).

Post-treatment

The need for support after treatment to facilitate reintegration to a substance-free lifestyle was also highlighted by females, *“That’s it, keeping busy, working, keeping myself occupied”* (ID 11, Female, 43 years old, Harm Reduction Centre).

Location

The proximity of the treatment centre to the participants’ home was important when deciding what treatment to enter *“It was close to my home”* (ID 22, Male, 56 years old, PHC).

Reasons for refusing or leaving treatment

In addition to the barriers previously identified, participants who had been referred to treatment but had not attended or were not engaged in treatment for substance use were asked to describe why.

Characteristics of the patient

Due to having to wait for an appointment, and therefore, continuing to use, several participants described forgetting about their appointments or reduced motivation to address their substance abuse. *“And the fact that you’re with your friends, using, when you’re using you don’t remember if you have an appointment, if you have to, you don’t remember, because you’re using, you don’t remember anything else, just about using”* (ID 5, Female, 42 years old, Harm Reduction Centre). *“Here in the CAS, yes. Well, they try to get you to go every x amount of time for an appointment, what happens is that I don’t go, I forget the appointments, I don’t know what day it is and... I go, and I don’t remember, that’s the truth... today when they give me the treatment again I go a bit crazy and don’t pay much attention... I don’t remember the dates, I lose consciousness and come back in 2 months... I was going for a while but I didn’t continue... because I don’t follow the rules anywhere”*(ID 8, Male, 60 years old, PHC).

Denial of problem

Several dropped out or did not attend treatment because they did not believe they had a problem. *“I’m not an alcoholic, I don’t drink every day... I didn’t go (to treatment), why do I want to waste my time there? No, I’m in my right mind and the best thing, I can give it up alone without any help, just me with my priority, it can be done, sure it can, I went the first time, the second and the third I didn’t go”* (ID 25, Male, 40 years old, Psychiatric Liaison). *“Because I thought I didn’t have a problem with drugs, I saw it as something normal. It’s true that I saw it was eating up all my money...”* (ID 12, Female, 33 years old, AMHC).

Some who were receiving treatment for their main substance of abuse but were also consuming other substances believed they did not require treatment for the other substances they consumed. Although referred to the CAS from the AMHC

where one participant received treatment for depression she had not attended *“Because my alcohol consumption is zero, or practically zero... that they should fill a place that could be used for someone who really needs it... I went so they could give me an appointment and they said that it wasn’t necessary, if I wasn’t drinking alcohol every day or anything, it wasn’t necessary... the thing is the doctor told me that they wanted to throw me out, when they see problems everyone goes for the CAS”* (ID 3, Female, 48 years old, AMHC).

Previous treatment attempts

Some talked about previous failed treatment attempts and that they had dropped out of treatment following a relapse. One woman referred to the CAS, but who did not engage in treatment said that it was *“out of laziness, what I told you, because I didn’t...I get tired, I get tired and then it doesn’t work at all, it’s a double frustration, that’s why I prefer not to know, because you get your hopes up when you start to feel well and then you get frustrated and you have a bad time of it until you end up accepting that you’re hooked again, so I prefer...”* (ID 6, Female, 25 years old, Harm Reduction Centre). *“(name of worker) always (name) stops and ‘come here and we’ll give you something’, she’s always there, she values me a lot, I’m happy with her but I’m the crazy one, I’m the one who’s not all there, I’m OK for a little while and then... I go back (into relapse)... but then she loses me and... I don’t come any more”* (ID 8, Male, 60 years old, PHC).

For some, there was a lack of understanding of addiction as a chronic relapsing condition that may require several treatment attempts. This fear of failure based on previous treatment attempts, may prevent substance abusers from accessing treatment. *“When you start feeling anxious, you start to get down, you start... I don’t want to give up smoking, because I feel bad”* (ID 9, Female, 19years old, PHC).

Service factors

Waiting time

One of the main reasons cited for not attending the CAS following referral was because of the length of time they had to wait for an appointment. *“Yes, I went there, they gave me information and there they gave me an appointment for 2 or 3 weeks later but because I didn’t write it down properly in my diary so I didn’t... I didn’t turn up and then when they gave me an appointment I don’t remember well but I was already in the Hospital de San Pablo”* (ID 10, Male, 38 years old, Emergency Unit).

Type of centre

Many had chosen to attend a Harm Reduction Centre instead of a CAS as they were admitted to the former quicker and considered their relationships with the staff very positive. *“Here (Harm Reduction Centre) it’s easier to get in, I mean you just have to sign a contract that they prepare for you in two minutes and that’s it, and what’s more... I mean you don’t have to ask for an appointment,*

it's more direct, more immediate... so they don't register you, you get some, you take it, you go out clean... and you get hot toasted sandwiches, which you don't get anywhere... only here... They don't tell me I need help, they give me the help I need and tell me it's there for me, whether I take it or not is up to me... They guide you..." (ID 6, Female, 25 years old, Harm Reduction Centre). *"I go to the Harm Reduction Centre because unfortunately I'm a prostitute and there they... (do) tests and I can ask for condoms... You connect really well with them, it's true, they're people who make it easy for you. They're like friends, not like professionals. So they make things easy for you. You go to a hospital, you see doctors and there you see friends"* (ID 11, Female, 43 years old, Harm Reduction Centre). *"I saw that it was easy, I was living nearby, it was easy that, that they can help me quickly and better"* (ID 2, Male, 48 years old, Harm Reduction Centre).

Offer of treatment

Some refused treatment or had not engaged in treatment because of the type of treatment they were offered. *"With the CAS, you wouldn't lose the craving, right?...It's a day centre, isn't it?... Well that's not the way, if you're not shut in it doesn't go, you stay hooked"* (ID 4, Female, 45 years old, Psychiatric Liaison). *"I explained to them that I wanted to do things my way like trying to find myself some kind of hobby, trying to find myself different friends, trying I don't know, to do something else that... for example, I used to do, I used to go hang-gliding. The thing is now I'm receiving a pension for life and that sport is pretty expensive. So I don't know, I'll see... I don't want to do treatment. I've done treatment five times and I don't have any reason to do it again... Because I've done five treatments, I don't want to do any more, I know how they work and they're no use to me..."* (ID 24, Male, 40 years old, Psychiatric Liaison).

Several participants described stopping methadone maintenance treatment or not wanting to begin methadone treatment due to the length of time that they would be required to remain on treatment. *"I gave up (methadone) because the withdrawal symptoms were pretty strong... because I was fed up of going to the CAS"* (ID 24, Male, 40 years old, Psychiatric Liaison).

Another stated that *"I stopped going because I wanted to shoot up, I mean, I wasn't even happy with the methadone, OK, it took away the pain, but I needed drugs, I had to,... you know? No, I couldn't and it was getting up in the morning and having that in your head, I mean, it's a fucking shit, you're in a fucking prison because you say , 'OK, tomorrow I won't shoot up, because I've got methadone, and it's true, with methadone you don't need it. But as you take methadone you take more cocaine and you leave the heroin to get the cocaine down, but you have to take something, I don't know what it is, if it's the whole business of the ritual of preparing it or seeing the guys, it could also be psychologically that role of going to look for some, to score, I don't know, it could be that. Now, what you also hope for is the pleasure. I don't know, I was really hooked, I mean, I liked it, yes"* (ID 14, Male, 38 years old, PHC). Many described a fear of methadone *"I didn't go (to treatment)... I gave it up (treatment) because I saw that (methadone) was a double addiction"* (ID 6, Female, 25 years old, Harm Reduction Centre). *"I've never wanted to (take methadone)... because I think that, the way I am, I don't know, it's*

Barriers and Facilitators	Males	Females	IATPAD Study (Fonseca, Gilchrist & Torrens, 2012)
Individual			
Acceptance of the problem	√	√	√
Motivation/ willpower	√	√	√
Self esteem	-	√	-
Previous experience of treatment/	√	√	√
Service reputation			
Stigma	√	√	√
Family/peer support	√	√	√
Awareness of service/ information	√	-	√
Service			
Referrals	√	√	-
Staff attitudes	√	√	√
Waiting times	√	√	√
Flexibility /opening hours	√	√	√
Offer of treatment	√	√	√
Location	√	√	√
Cost of treatment	√	√	√
Co-ordination	√	√	√
Continuity of care	-	√	-
Post treatment	√	√	-

Table 3. Barriers and Facilitators to accessing treatment

like admitting defeat, you know? So since I'm a person that if they can do the work for me, then it's like... I know that I'd get comfortable, so this little... I don't know, this little rage that I have would drive me to carry on, I suppose that if I was taking methadone, maybe I'm mistaken, it's not my... my point of view, right? But until now I've always been a bit reluctant" (ID 16, Male, 35 years old, Emergency Unit).

Frequency of care

Several participants highlighted the need for more frequent visits. *“Let’s see, normally the psychologist is once a month... and man, you’d think it would be better if it was once a week or every two weeks, but you also have to bear in mind that there are a lot of people that have this problem and it’s not like there are so many professionals and with the system now with the cutbacks there are fewer...”* (ID 10, Male, 38 years old, Emergency Unit). *“I would like it to be something more constant... for me, coming once a month doesn’t take away the problem, you know?”* (ID 13, Female, 24 years old, Harm Reduction Centre). *“I think it was too long, you know, between one appointment and the next, I mean”*(ID 24, Male, 40 years old, Psychiatric Liaison).

Conclusion

Few differences were reported between male and female participants. Table 3 summarises the main barriers and facilitators to not seeking nor engaging with substance abuse treatment by sex of the participants.

Individual barriers identified included denial of the problem or a lack of motivation or willpower to address their addiction problem. Several also described the stigma of having to seek treatment for their substance use. The importance of a rapid response when treatment was sought was crucial to sustaining motivation to address problem substance use; with several women highlighting the need for professional support during the waiting period. Previous experience of treatment including negative staff attitudes or treatment contributed to their decisions to access treatment or not, with many reporting choosing Harm Reduction Centres rather than CAS due to a perceived greater kindness and understanding from staff and greater flexibility with regards to the treatment regime.

Extended opening hours were required to facilitate treatment entry for men in employment. Participants were often informed about services and service reputation by ‘word of mouth’ from other service users, and family support (especially for females) was considered important.

Males highlighted the need for information about available services. Several (mostly male) participants described the difficulty in trying to address their substance abuse due to their continued association with substance abusing friends or partners (one woman described this, data not presented). The offer of treatment was also important, with many highlighting that they did not want to have methadone maintenance treatment, mainly due to it being perceived as highly addictive and that they were required to stay on methadone for a long period of time (males only).

The cost and waiting time to enter therapeutic communities was stressed. Moreover, several identified that fear of treatment failure stopped them seeking treatment. This may be linked to their potential lack of understanding that addiction is a chronic relapsing condition, often requiring several treatment attempts. Overall, proximity to the services was considered to facilitate treatment access, although one male described wanting a service out with his local area due to the temptation of the readily available drugs for sale. It is valued positively being

referred for addiction treatment by another health professional, as having 'what to expect' explained to them prior to attending treatment. The coordination of care between services especially AMHC and CAS where the patient had co-occurring mental health and substance use problems was valued. One woman stressed the importance of continuity of care provider as she had established trust to disclose her childhood history of abuse to one staff member.

The findings are similar to a recent study conducted in Catalonia among alcohol and drug users attending two CAS (Fonseca et al., 2012) and are compared to this study in Table 3.

Recommendations for improving access to treatment

As many reported hearing about available treatment through other service users, using outreach or peer educators may be a useful way to inform substance users about available services and to encourage them to attend treatment. This would also prepare service users about what to expect from treatment. Several service users described being introduced to treatment at the CAS by staff from Harm Reduction Centres as helpful to understanding what treatment at a CAS entails.

One of the largest barriers identified was waiting for treatment once the decision to seek treatment had been made, often resulting in participants not attending their first appointment due to forgetting they had an appointment or a decrease in their initial motivation to seek treatment. CAS should consider using text messages or telephone calls or a drop-in service to remain in contact with potential service users while they wait for their appointment to sustain or encourage motivation and remind them of their appointment dates and times. Motivational interviewing is also required to move patients from 'pre-contemplation' who attend a Harm Reduction Centre to 'action' to address their addiction problem. Service users should also be informed that addiction is a chronic relapsing condition so that if they lapse they will not drop out of treatment. Furthermore, services should be more flexible to incorporate lapses without excluding those who (re)lapse from treatment. Several participants also highlighted that they would prefer more regular visits to address their mental health and addiction problems.

The importance of non-stigmatising staff who understand addiction was described. Workforce development is required across all sectors that come into contact with alcohol and drug users to increase their understanding about addiction, their competency in working with this client group and also to reduce negative attitudes. If potential service users were treated compassionately by staff, they may be more likely to seek treatment.

While methadone is an effective evidenced-based approach to heroin addiction, many stated that they would prefer other types of treatment. Consideration should be given to widening the availability of other treatment approaches for heroin addiction.

Opening hours should be extended to accommodate service users who are in employment or may wish to return to employment. Furthermore, educating

employers about addiction may reduce the stigma when patients need to inform their employers that they need to attend treatment.

Several participants described the need for reintegration services post-treatment to enable them to have a successful substance-free lifestyle and be gainfully employed or manage their leisure.

While no substantial differences in barriers and facilitators were reported between males and females, it is still important to consider issues such as fear of losing care of children and histories of childhood abuse or intimate partner violence, which although also occur frequently among male substance abusers, they occur at a higher rate among female substance abusers. Staff should be trained in how to identify and respond to these issues among substance abusers.

Note

This chapter is a summary of the report: *Gilchrist G, Blazquez A., Pons Rabasa A., Coronado M, Colom J i Torrens M. Barreres per a l'accés al tractament, segons el gènere, entre consumidors i consumidores de substàncies que no busquen ni reben tractament.*

Acknowledgements

We would like to thank the patients and staff of the harm reduction centres, adult mental health centres, drug addiction treatment and follow-up centres, primary healthcare centres, emergency units and psychiatric liaison for their participation in the research.

References

Fonseca F, Gilchrist G, Torrens M. Integrating addiction and mental health networks to improve access to treatment for people with alcohol and drug- related problems: a qualitative study. *Advances in Dual Diagnosis* 2012;5(1):5-15.

Gilchrist G, Fonseca F, Torrens M. Accesibilidad a tratamiento en personas con problemas de Alcohol y otras Sustancias de abuso. *Addicciones* 2011; 23:343-348.

Guest G, Bunce A, Johnson L. How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability. *Field Methods* 2006; 18:59-82.

Ministerio de Sanidad y Política Social. Plan de Acción sobre Drogas 2009-2012.

Mowbray, O., Perron, B.E., Bohnert, A.S., Krentzman, A.R. and Vaughn, M.G. (2010), "Service use and barriers to care among heroin users: results from a national survey", *Am. J. Drug Alcohol Abuse*, Vol. 36No. 6, pp. 305-10.

Neale J, Tompkins C, Sheard L. Barriers to accessing generic health and social care services: a qualitative study of injecting drug users. *Health and Social Care in the Community* 2008; 16 (2) :147-154.

Pope C, Mays N. Reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. *British Medical Journal* 1995; 311:42-5.

Pope C, Ziebland S, Mays N. Qualitative research in health care: analysing qualitative data. *British Medical Journal* 2000; 320:114–116.

Ritchie J, Spencer L. Qualitative data analysis for applied policy research. In: Bryman A, Burgess R, editores. *Analysing qualitative data*. Londres: Routledge;1993. p. 173--94.

Tucker, J.A., Vuchinich, R.E. and Rippens, P.D. (2004), "A factor analytic study of influences on patterns of help-seeking among treated and untreated alcohol dependent persons", *J. Subst. Abuse Treat.*, Vol. 26 No. 3, pp. 237-42.

Gender differences in heroin addiction and treatment in the Italian "VEdeTTE" Cohort Study

Paola Burroni (1), Federica Vigna-Taglianti (2)

(1) Drug Addiction Local Service, ASL 1, Torino, Italy

(2) Department of Clinical and Biological Sciences, University of Torino, Italy, Piedmont Centre for Drug Addiction Epidemiology, ASL T03, Torino, Italy

Gender differences in substance use are marked, in risk factors, prevalence of use, treatment access and outcomes.

According to the Annual National Report on Drug Addiction, in Italy the proportion of female addicts treated each year at National Health System (NHS) treatment centres is around 14%: one female patient is treated every six male patients. This male/female ratio has been constant for many years, as well as the observation that the prevalence of females treated at NHS centres is very low in South Italy regions, suggesting differences in both risk and protective factors between the population of North and South.

Despite gender differences have been manifest and well-known for many years, only few studies investigated the reasons of such differences especially in the field of substance addiction, as the European Monitoring Centre for Drugs and Drug Addiction pointed out (EMCDDA 2005).

The VEdeTTE study collected a large amount of data on more than 10,500 heroin addicts treated between 1998 and 2001 in Italian NHS centres, allowing the investigation of gender differences including risk and protective factors, substance use patterns, treatments, outcomes, and even mortality.

The analysis of gender differences in the VEdeTTE study was addressed in a specific monograph (Burroni 2007) written and published by a group of experts from different research and clinical fields. In this chapter we summarize the main results and conclusions of that work to which we refer for further details.

In the study, we used the sociological definition of gender differences: systems of factors influencing the development of the social constructs of male and female, which are not limited to sexual contents but deeply related to symbols, values and health. These differences include characteristics which make up male and female identity, and their representation which changes across time and generations. According to sociologists, examples of women protective factors towards drug addiction include a better integration in the family model, a lower inclination to transgression, and a lower and different tendency to aggressive behaviours.

From a psychological point of view, gender differences in drug addiction originate during the early stages of child development, e.g. during the primary dependence phase ("mother-child" phase), the following separation of the child from the mother, and the approach and comparison with the father. Psycho-pathological

disturbances in these early phases favour the development of drug addiction among males, and of eating disorders among females. However, when women develop addiction they are concurrently affected by several psychopathological disorders and symptoms. Our analysis confirms that these psychopathological disorders and symptoms occur much more frequently in women than in men.

Despite the large sample and the amount of information collected, the VEdeTTE study was not able to answer all the questions related to the observed gender differences. Several differences were highlighted, but the disciplines involved in the research could not fully explain the results. Therefore, many questions remain unexplained and open. The need of further studies and knowledge in this field is still a priority for research.

The VEdeTTE Study

VEdeTTE is a multi-centre cohort study of heroin addicts admitted to NHS treatment centres throughout Italy between September 1998 and March 2001. The study was funded by the Italian Ministry of Health to evaluate the effectiveness of the treatments in reducing mortality and improving retention in treatment.

Upon enrolment, clinical history and personal information were collected by centre personnel through a structured interview, whilst information on treatment was registered during the 18 months following the start of the study (for more details on the study design and population, see Bargagli 2000 and Bargagli 2006).

All treatments were provided on an outpatient basis by the centres' personnel, except for residential and semi-residential treatments and in some cases of inpatient detoxification.

The large and representative sample of patients enrolled in the study (8,953 males and 1,501 females) gave us the possibility to explore the patterns of gender differences at intake and at follow-up.

For this analysis, the enrolled population was described according to gender with regard to socio-demographic characteristics, drug-addiction related issues, risk behaviours at intake, and psychiatric symptoms before and after the first heroin use.

In order to study treatment retention and its determinants, the analysis was conducted on the first Methadone Maintenance treatment and the first Therapeutic Community episodes. For the purposes of the survival analysis, treatments were considered abandoned according to the classification given by the clinician. Kaplan-Meier product-limit estimator was calculated overall and for each group stratification. A Cox Proportional Hazard model was built for the maximum likelihood estimation of the risk of drop-out including all possible determinants of drop-out, separately for males and females.

At the end of the study period (1th April 2001) vital status was ascertained at the treatment centre, and at the Registry Office of the last municipality of residence. Vital status data were retrieved for 96.3% of the enrolled subjects. Cause of death was coded according to the International Classification of Diseases (ICD) IX revision. Person-years at risk were calculated from the start of treatment to the end of the 18-month study period in each centre or until the date of death. Standardized mortality rates (SMR) were calculated based on death rates of the Italian population aged 15 to 65 years (year 1998).

Results

Socio-demographic characteristics

Women enrolled in the VEdeTTE cohort were married, divorced or widowed more frequently than men: 12.1% of women were divorced and 3.8% were widowed vs 7.8% and 0.5% of men (Table 1). This pattern had already been observed by other authors (Marsh, 1985; Schottenfeld, 1998; Grella, 1999; Wechsberg, 1998; Acharyya, 2003).

A lower proportion of women lived with their family of origin (38.2% vs 57.9% of men), whilst a larger proportion lived with their partner (23.7% vs 9.6% of men) or their children (without the partner) (3.5% vs only 0.3% of men), consistently with the literature (Hser, 1987b; Grella, 1999; Wechsberg, 1998; Chatham, 1999; Freeman, 1994; Rowan-Szal, 2000; Green, 2002; Hser, 2003; Stewart, 2003; EMCDDA, 2005). A higher proportion of women had no fixed abode.

Women showed a higher education level, but they had a stable job less frequently than men, they were unemployed more often (42.9% vs 34.3%) or in a “non professional condition” including prostitution and housekeeping, consistently with several previous studies (Stocco, 2000; Hser, 1987b; Grella, 1999; Wechsberg, 1998; Chatham, 1999; Schottenfeld, 1998; Petry, 2000; Riehm, 2003; Puigdollers, 2004; Freeman, 1994; Brady, 1993; Marsh, 1985; Marsh, 1986; Rowan-Szal, 2000; Green, 2002; Callaghan, 2002; Hser, 2004; Winhusen, 2003; Acharyya, 2003; Grella, 2003; EMCDDA, 2005; Kelly, 2009).

Women had recent legal problems or were serving a sentence less frequently than men, a common finding in the literature (Hser, 1987a; Anglin, 1987; Grella, 1999; Wechsberg, 1998; Chatham, 1999; Marsh, 1985; Marsh, 1986; Powis, 1996; Hser, 2003; Grella, 2003; Hser, 2004; Stewart, 2003; Rowan-Szal, 2000; Joe, 1995; Mino, 1998).

Drug use

Women were younger than men at first access to treatment, and they had been addicted for a shorter period of time, a finding already observed in other studies (Haseltine, 2000; Hser, 1987a,b; Avila, 1996; Rosenbaum, 1981; Wechsberg, 1998; Chatham, 1999; Grella, 1999; El-Guebaly, 1995; Marsh, 1986; Rowan-Szal, 2000; Green, 2002; Hser, 2004; Brady, 1999; Greenfield, 2007).

Men accessed to the treatment as a consequence of judicial proceedings more frequently than women, whilst women were more frequently referred by the Health System or by their family.

With regard to substance use associated to heroin, women used amphetamines (3.0% vs 1.7% of men) or benzodiazepines (25.2% vs 16.2% of men) more frequently. By contrast, men used alcohol (54.6% vs 44.0% of women). These results were consistent with previous studies (Chambers, 1970; Suffet, 1976; Anglin, 1987; Hser, 1987b; Marsh, 1985; Brady, 1993; Darke, 1994; Freeman, 1994; Wechsberg, 1998; Bretteville-Jensen, 1999; Rowan-Szal, 2000; Green, 2002; Hser, 2003; Grella, 2003).

Characteristic	Men		Women	
	(n=8,953)	%	(n=1,501)	%
Marital status				
single	5,991	67.1	732	49.0
married	1,466	16.4	271	18.1
living with partner	730	8.2	254	17.0
separated/divorced	702	7.8	181	12.1
widow	42	0.5	56	3.8
Housing				
with parents/relatives	5,165	57.9	569	38.2
with partner and sons	1,303	14.6	223	14.9
with partner only	857	9.6	353	23.7
with sons only	25	0.3	52	3.5
with friends	92	1.1	33	2.2
alone	811	9.1	150	10.1
in therapeutic community	528	5.9	77	5.2
no fixed abode	135	1.5	33	2.2
Years of education				
≤5	5,457	61.2	819	54.9
8	1,557	17.5	130	8.7
10-11	558	6.2	146	9.8
13 or more	1,344	15.1	397	26.6
Employment				
stable	3,154	35.7	346	23.3
unstable	2,355	26.7	342	23.0
student	74	0.8	31	2.1
non-professional condition	221	2.5	129	8.7
unemployed	3,028	34.3	638	42.9
Age at first heroin use				
9-17	3,027	33.8	549	36.6
18-19	2,134	23.8	325	21.7
20-21	1,586	17.7	204	13.6
22-55	2,126	23.8	413	27.5
Age at first treatment				
10-21	2,556	28.6	547	36.4
22-24	2,159	24.1	303	20.2
25-28	2,092	23.4	318	21.2
29-65	1,820	20.3	274	18.3
Access to treatment service				
voluntary	7,511	83.9	1,208	80.5
through family	559	6.2	119	7.9
health services	354	4.0	96	6.4
judicial	384	4.3	42	2.8
others	97	1.1	31	2.1
Recent legal problems/prison	2,823	32.0	387	26.0
Cocaine use	1,799	20.2	297	19.9
Amphetamine/ecstasy use	151	1.7	45	3.0
Alcohol use	4,882	54.8	660	44.2
Cannabis use	2,919	32.8	447	29.9
Benzodiazepine use	1,441	16.2	376	25.2
Cigarette smoking	8,641	97.0	1,452	97.3
Sharing needles	1,512	17.2	325	22.1
Unprotected sexual intercourses	1,294	14.9	140	9.6
HIV/AIDS	660	11.0	192	17.8
Hepatitis B	2,497	41.8	438	42.5
Hepatitis C	4,321	70.2	801	74.0
Psychiatric comorbidity	1,129	15.9	260	21.9

Table 1. Characteristics of the VEdTTE study population at intake, by gender

Women shared needles or injection instruments more than men (22.1% vs 17.2%), but they had unprotected intercourses less frequently than men (9.6% vs 14.9%). Previous studies observed a higher rate of needles or other injection instruments exchange among women (Bennett, 2000; Chatham, 1999; Sherman, 2001; Evans, 2003; Puigdollers, 2004), a risk behaviour often acted together with their partner (Freeman, 1994; Evans, 2003).

Comorbidity

As reported by the patients or registered in the clinical records, HIV/AIDS and hepatitis C affected women more than men, respectively 17,8% vs 11% and 74% vs 70%. Also psychiatric comorbidity was more frequent among women. Women reported they had already experienced bad mood or depression before the first heroin use in a higher proportion than men (65.9% vs 46.4%). They also reported self-damaging behaviours and suicide attempts more often than men, respectively 29.0% vs 11.6% and 20.9% vs 4.3%. Aggressive behaviours were more frequent among women (31.8%) compared with men (26.7%). Psychotic thinking and hallucinations were reported by 7.4% of women compared to 4.9% of men, and 10.6% of women had psychiatric hospitalizations as compared to 4.4% of men. According to the literature, psycho-pathologic problems, such as anxiety-depressive syndrome and personality disorders, are more frequent and more severe among females heroin addicts (Haseltine, 2000; Petry, 2000; Wechsberg, 1998; El-Guebaly, 1995; Chatham, 1999; Grella, 1999; Brady, 1993; Green, 2002; Stewart, 2003; Rowan-Szal, 2000; Zilberman, 2003; Grella, 2003; Darke, 2009; Brady, 1999), as well as suicide attempts and self-damaging behaviours (Luthar, 1996; Darke, 2004; Haseltine, 2000; Wechsberg, 1998).

After starting heroin use, the rate of psychiatric symptoms increased, but differences generally decreased: bad mood/depression was reported by 90.0% of women versus 85.6% of men. All other variables showed the same pattern, but the differences between genders were still considerable: self-damaging behaviours were reported by 39.2% of women vs 25.8% of men, and suicide attempts by 21.1% of women vs 11.3% of men. Aggressive behaviours were still more frequent among women (44.0%) than men (38.2%). Psychotic thinking and hallucinations were reported by 18.5% of women as compared to 15.0% of men, and 13.4% of women had psychiatric hospitalizations compared to 8.6% of men.

The observed differences between genders were confirmed by a multivariate adjusted analysis (data not shown, for further details see the original publication: Burrioni, 2007).

Treatments

Detoxification with methadone and residential community were the first treatments upon enrolment for a similar proportion of men and women (Table 2). Methadone maintenance was the first treatment for a slightly higher proportion of women, whereas psychotherapy was more frequently administered to women than men, alone or concurrent with other treatments (14.3% vs 9%). Also the proportion

of counselling interventions was significantly higher among women (38.7% vs 33.1%), as well as the job guidance (6.1% vs 4.5%).

Both for men and women, the most frequent sequence of treatment was methadone maintenance followed by methadone at tapering doses. After that, substitution treatments were used mostly for men, while psychotherapy or psychosocial treatment for women.

Women tend to come to an agreement about the treatment outcome with the clinical staff more than men, and they remain in contact with the NHS centre longer, asking for new and different treatments, especially psychosocial treatments, counselling, job advices and psychotherapy. Similar patterns were observed in the study by Rowan-Szal.

In the first six months of the study, 1,727 men and 257 women received methadone maintenance as their first treatment. Among them, 28.3% of men and 21.8% of women left the treatment in the following 12 months. The difference in the abandon rate is statistically significant in favour of women; Figure 1 shows that the outdistance begun after the first 6 months. Afterwards, women remained in treatment, whilst another 10% of men dropped-out.

In the first six months of the study, 433 men and 81 women received a community treatment as their first treatment. In the following 12 months, 51.0% of men and 55.6% of women left the treatment. The difference is not statistically significant, but after the third month the two populations diverged with a better retention among men (Figure 2).

Table 3 shows the results of Cox multivariate models investigating factors influencing abandon of Methadone and Therapeutic Community treatment among men and women. No fixed abode and an unstable job were risk factors for abandon of methadone maintenance in both genders. A short duration of addiction, heroin use at the time of the interview and recent legal problems or imprisonment were predictive of abandon of methadone maintenance among men but not among women. On the contrary, sharing needles was a risk factor for women for leaving the treatment. High methadone dosages were protective towards the abandon both in men and in women, but the effect was even more evident among women. Also the association of treatments was protective towards the abandon, and when psychotherapy was associated the protective effect was even more evident in both genders.

Higher education level acted as a risk factor for the abandon of the community in both genders, as well as sharing needles. A younger age was a predictor of abandon among men, as well as being in psychotherapy and having had previous episodes of therapeutic community in the last 12 months.

The findings of previous studies that examined gender differences in substance abuse treatment retention and completion were inconsistent (Greenfield, 2007). According to some studies, women abandoned substance abuse treatment more frequently than men (Mino, 1998; Petry, 2000; Simpson, 1997); however, others did not find differences (Gerstein, 2000; Stewart, 2003; Schottenfeld, 1998; Del Rio, 1997; Green, 2002). Low socio-economic status, low education level and frequent legal problems among women, young age among men and severity of dependence in both genders seemed to be associated with a lower treatment retention (Knight, 2001; Messina, 2000; Green, 2002).

Type of administered treatment	Men		Women	
	n	%	n	%
therapeutic community	716	8.1	102	6.9
methadone maintenance	4,137	46.9	735	49.5
detoxification with methadone	2,017	22.8	321	21.6
residential brief detoxification	83	0.9	20	1.4
psychotherapy	797	9.0	213	14.3
counselling	2,924	33.1	574	38.7
social advice	1,915	21.7	337	22.7
job guidance	398	4.5	91	6.1
naltrexone	350	4.0	44	3.0
painkillers/anxiolytics	152	1.7	20	1.4
other pharmacological treatments	436	4.9	117	7.9

Table 2. First treatments received by patients in the study period, by gender

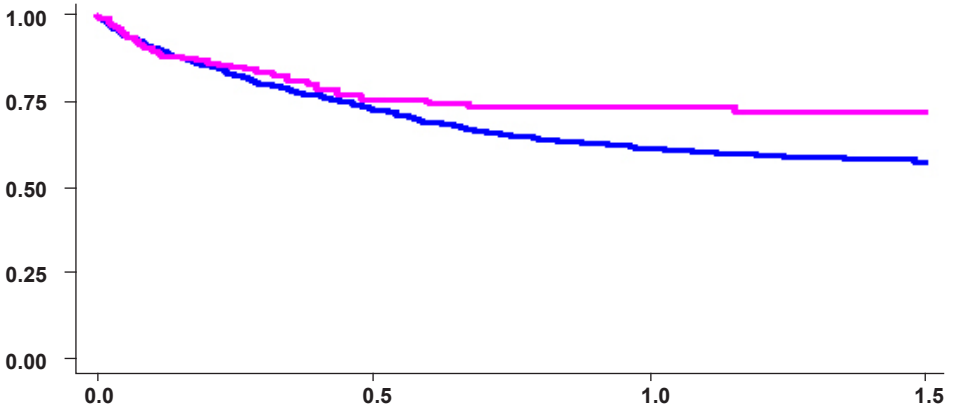


Figure 1. Retention in Methadone Maintenance Treatment by gender

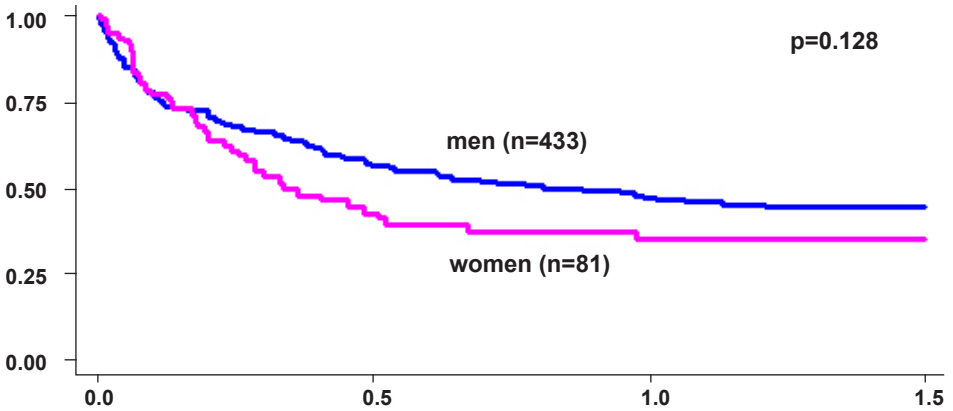


Figure 2. Retention in Residential Community by gender

Methadone maintenance		Men (n=1,634)			Women (n=246)		
Characteristic		Adj HR	95% C.I	p	Adj HR	95% C.I.	p
Duration of addiction							
	>5 years	1			1		
	≤5 years	1.40	1.10-1.76	0.005	0.85	0.44-1.64	0.637
Years of education							
	>12	1			1		
	≤12	1.04	0.82-1.31	0.739	1.49	0.80-2.78	0.203
Housing							
	with parents/relatives	1			1		
	with partner and/or sons	1.05	0.84-1.31	0.677	1.45	0.74-2.82	0.278
	with friends/alone/ in a therapeutic community	1.23	0.91-1.66	0.174	1.27	0.54-2.98	0.587
	no fixed abode	1.93	1.18-3.17	0.009	11.0	2.11-57.4	0.004
Employment							
	stable	1			1		
	unstable	1.38	1.10-1.72	0.004	2.03	0.89-4.63	0.090
Sharing needles							
	no	1			1		
	yes	1.13	0.90-1.42	0.296	2.22	1.24-3.95	0.007
Heroin use**							
	no	1			1		
	yes	1.62	1.30-2.02	<0.001	1.80	0.94-3.43	0.075
Legal problems/prison***							
	no	1			1		
	yes	1.53	1.26-1.86	<0.001	1.39	0.77-2.52	0.273
Methadone dosage							
	1-39 mg/day	1			1		
	40-59 mg/day	0.78	0.64-0.97	0.023	0.64	0.34-1.23	0.182
	> 60 mg/day	0.62	0.46-0.82	0.001	0.32	0.13-0.81	0.017
Concurrent treatments							
	no one	1			1		
	MM + other	0.47	0.39-0.57	<0.001	0.55	0.30-0.99	0.047
	MM + other + psychotherapy	0.30	0.18-0.50	<0.001	0.33	0.10-1.11	0.073
Therapeutic community		Men (n=422)			Women (n=79)		
Age							
	≥30 years	1			1		
	25-29 years	1.21	0.89-1.63	0.219	0.99	0.49-2.02	0.984
	≤24 years	1.42	1.00-2.03	0.050	1.07	0.480-2.37	0.869
Years of education							
	>12	1			1		
	≤12	1.43	0.98-2.08	0.062	1.98	0.98-3.99	0.055
Employment							
	employed	1			1		
	unemployed	1.10	0.83-1.45	0.500	1.12	0.58-2.18	0.736
Sharing needles							
	no	1			1		
	yes	1.44	1.08-1.91	0.012	1.90	1.00-3.59	0.049
Psychotherapy***							
	no	1			1		
	yes	1.39	1.00-1.94	0.049	1.01	0.46-2.21	0.970
Therapeutic community***							
	no	1			1		
	yes	1.46	1.05-2.03	0.023	1.20	0.60-2.41	0.598

* Hazard Ratios are adjusted for all variables in the table

** at interview

*** in the last 12 months

Table 3. Risk factors for treatment abandon: results from adjusted Cox model*

Mortality

Among the 10,454 subjects eligible for the analyses, 190 (1.8%) died during the study period (by 1st April 2001): 153 men and 37 women, 1.7% of the male cohort and 2.5% of the female cohort. 397 (3.8%) were lost to follow-up.

Death causes are shown in table 4. A higher proportion of deaths caused by infectious diseases, AIDS, overdoses, respiratory diseases, and violent causes were observed among women, while deaths due to cardiovascular system or digestive diseases were more frequent among men. For both men and women overdose was the most frequent cause of death, followed by AIDS and violent causes.

AIDS and overdose standardized mortality rates, stratified by gender, are shown in table 5. They were estimated for 10,057 subjects whose information on vital status on 31st March 2001 was retrieved, for a total of 21,612 person-years at risk. A higher overdose mortality rate was observed among women: 4.0 vs 2.6/1,000 person-years of men, whilst a higher AIDS mortality rate was found among males: 2.6 vs 1.8/1,000 person-years of women. Also the overall mortality rate was higher among men: 12.7 vs 8.4/1,000 person-years of women

Cause of death	Men		Women		Total	
	n	%	n	%	n	%
Infectious diseases	6	3.9	2	5.4	8	4.2
Cancer	4	2.6	1	2.7	5	2.6
AIDS	30	19.6	8	21.6	38	20.0
Overdose	56	36.6	14	37.8	70	36.8
Nervous system diseases	1	0.7	0	0.0	1	0.5
Cardiovascular diseases	6	3.9	1	2.7	7	3.7
Respiratory diseases	0	0.0	1	2.7	1	0.5
Digestive diseases	9	5.9	0	0.0	9	4.7
Violent causes	23	15.0	7	18.9	30	15.8
Not specified	18	11.8	3	8.1	21	11.1
Total	153	100	37	100	190	100

Table 4. Deaths among men and women in the study period

Cause of death	Men			Women		
	n	Rate	CI 95%	n	Rate	CI 95%
AIDS	30	2.6	0.6-4,6	8	1.8	0.4-3,1
Overdose	56	2.6	0.8-4,5	14	4.0	0.9-7,2
Other causes*	49	6.7	0.0-14,0	12	2.3	0.9-3,6
All causes	153	12.7	4.9-20,5	37	8.4	4.7-12,2

Table 5. Standardized mortality rate/1,000 person-years

Summary and discussion

The analysis of gender differences in the Italian VEdeTTE cohort of heroin addicts confirms the findings of previous studies, at least on socio-demographic characteristics and drug-related patterns:

- at intake in the VEdeTTE cohort, women had a higher education level, but they had a stable job less frequently than men, and were more frequently unemployed;
- compared to men, women lived with their partner, or alone with their children more frequently, and were more frequently divorced or widowed;
- age of first heroin use was younger among women, as well as the age of first treatment, with a shorter addiction career at intake;
- psychiatric symptoms were more frequent and more severe among women, including depression, self-damaging behaviours and suicide attempts; furthermore, female heroin users were far more likely to attempt suicide prior to the initiation of heroin use;
- women engaged in risk behaviours (needle exchange) more frequently than men, but they experienced crimes and imprisonment less frequently;
- heroin addicted women used amphetamines and benzodiazepines as secondary drugs, whilst men used alcohol more frequently.

With regard to treatments, women were more willing to ask and receive psychosocial treatments and psychotherapy than men. They retained better in Methadone Maintenance, and worst in Therapeutic Community. Indicators of poor socio-economic situation and severe addiction, such as bad housing conditions, an unstable job and sharing needles, were risk factors for leaving methadone treatment among women. By contrast, a recent addiction, heroin use at the time of the interview and recent legal problems or imprisonment acted as risk factors among men. High methadone dosages were more protective among women, whilst the protection given by associated treatments was similar for males and females. Lower education and sharing needles were risk factors for the abandon of the therapeutic community in both genders, whilst the young age, to be in psychotherapy treatment, and to have had a previous episode of therapeutic community in the last 12 months were statistically significant predictors of abandon among men only.

Over the 18 months of the study, 1.7% of the enrolled males and 2.5% of the females died, with a higher overall mortality rate among men and an overdose mortality rate higher among women.

From our study, some clear indications on the differences in risk and protective factors for heroin addiction between genders emerged.

It is confirmed that drug addicted women experience a worst socio-economic condition. In all pre-treatment variables analysed, they are disadvantaged towards men. Bad socio-economic factors are an indicator of severity of the condition and therefore they need to be taken into account in treatment choices and associations.

From the pharmacological side, high methadone dosages are highly recommended, due to their protective effect (Faggiano, 2003).

The high prevalence of psychiatric disorders show the importance of taking into account co-morbidity, when patients first access treatment (Zilberman, 2003). Despite this higher prevalence of psychiatric symptoms and disorders, which might increase the risk of negative outcomes, in the VEdeTTE cohort methadone retention was better for women than for men, and high methadone dosages were more protective among women. The two findings could be related to one another. In fact, the higher protection of high methadone dosages for women could be due to the contribution of methadone in lowering psychiatric symptoms.

When choosing a therapeutic community treatment, particular attention has to be paid to the education level of the subject (both male and female): this can be a difficult treatment for some subjects, with high risk of abandon and all related risky outcomes. However, adding child and family components favours retention and completion of therapeutic community program among women (McComish, 2000; Grella, 2000; Szuster, 1996).

From a general point of view, since many features both of the patient and of the treatment can influence treatment outcomes differently in men and women, a gender specific approach to treatment of heroin addiction and to relapse prevention should always be applied. A 2003 review found that gender sensitive programs improve treatment completion, length of stay, birth outcomes, employment, self-reported health status, HIV and decrease use of substance, as well as HIV risk (Ashley, 2003). Furthermore, a study on cost-effectiveness of mixed-gender programs for substance abuse found that when the program is standardized for both genders it is less cost-effective for women: they show less improvement than men in the outcomes and the program is more costly (Yeom, 2007).

Conclusions

Results of our analysis suggest the need of a gender-oriented approach in the treatment of drug addiction.

We recommend particular care in the treatment of addicted women:

- 1 investigate psychiatric comorbidity and self-damaging acts in the past;
- 2 investigate infectious diseases comorbidity;
- 3 investigate risk factors and traumatic events of the early stages of life;
- 4 in the strategy of treatment, take into account traumatic events and related psychopathological comorbidity;
- 5 consider that women more frequently need and better adhere to psychosocial treatment, advice, counselling, job guidance and psychotherapy;
- 6 remember that stable outcomes are more easily obtained among women by using adequate methadone dosages;
- 7 remember that psychotherapy associated to methadone maintenance increases treatment retention.

Finally, the specific characteristics of the psychological and social development of women, as well as the cultural context must be taken into account. Today, the design of gender-oriented pathways of care is a priority for the drug addiction field.

References

- Acharyya S, Zhang H.** Assessing sex differences on treatment effectiveness from the Drug Abuse Treatment Outcome Study (DATOS). *Am J Drug Alcohol Abuse* 2003; 29(2): 415-444
- Anglin MD, Hser YI, McGlothlin WH.** Sex differences in addict careers. 2. Becoming addicted. *Am J Drug Alcohol Abuse* 1987; 13(1-2): 59-71
- Ashley OS, Marsden ME, Brady TM.** Effectiveness of substance abuse treatment programming for women: a review. *Am J Drug Alcohol Abuse* 2003; 29(1): 19-53
- Avila JJ, et al.** Analisis descriptivo de una muestra de mujeres alcoholicas atendidas durante un periodo de 10 anos. *Addiciones* 1996; 8(4): 429-40
- Bargagli AM, Piras G, Cuomo L, Faggiano F, Versino E. Studio VEdeTTE** - Monografia N° 1 – Protocollo e stato dell'arte – November 2000
- Bargagli AM, Faggiano F, Amato L, Salamina G, Davoli M, Mathis F, Cuomo L, Schifano P, Burroni P, Perucci CA, for the VEdeTTE Study Group.** VEdeTTE, a longitudinal study on effectiveness of treatments for heroin addiction in Italy: study protocol and characteristic of study population. *Subst Use Misuse* 2006; 41: 1861-79.
- Bennett GA, Velleman RD, Barter G, Bradbury C.** Gender differences in sharing injecting equipment by drug users in England. *AIDS Care* 2000; 12(1): 77-87
- Brady KT, Grice DE, Dustan L, Randall C.** Gender differences in substance use disorders. *Am J Psychiatry* 1993; 150(11): 1707-11
- Brady KT, Randall CL.** Gender differences in substance use disorders. *Psychiatr Clin North Am* 1999; 22(2): 241-252
- Bretteville-Jensen AL.** Gender, heroin consumption and economic behaviour. *Health Econ* 1999; 8(5): 379-89
- Burroni P, Vigna-Taglianti F, Versino E, Beccarla F, Garneri M, Mathis F, piccolini A, Rotelli M, e Bargagli AM (a cura di) Studio VEdeTTE.** Monografia numero 7. Differenze di genere nello studio VEdeTTE. AGAT editrice, Aprile 2007
- Callaghan RC, Cunningham JA.** Gender differences in detoxification: predictors of completion and re-admission. *J Subst Abuse Treat* 2002; 23(4): 399-407
- Chambers C, Hinesley RK, Moldestad M.** Narcotic addiction in females: a race comparison. *Int J Addict* 1970; 5: 257-78
- Chatham LR, Hiller ML, Rowan-Szal GA, Joe GW, Simpson DD.** Gender differences at admission and follow-up in a sample of methadone maintenance clients. *Subst Use Misuse* 1999; 34(8): 1137-65
- Darke S.** Benzodiazepine use among injecting drug users: problems and implications. *Addiction* 1994; 89(4): 379-382
- Darke S, Ross J, Lynskey M, Teesson M.** Attempted suicide among entrants to three treatment modalities for heroin dependence in the Australian Treatment Outcome Study (ATOS): prevalence and risk factors. *Drug Alcohol Dep* 2004; 73: 1-10

Darke S, Mills K, Teesson M, Ross J, Williamson A, Havard A. Patterns of major depression and drug-related problems amongst heroin users across 36 months. *Psychiatry Research* 2009; 166: 7-14

Del Rio M, Mino A, Perneger TV. Predictors of patient retention in a newly established methadone maintenance treatment programme. *Addiction* 1997; 92 (10): 1353-1360

El-Guebaly N. Alcohol and polysubstance abuse among women. *Can J Psychiatry* 1995; 40(2): 73-9

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Differences in patterns of drug use between women and men. *European Drug Situation; Technical Data Sheet*. Lisbon 2005

Evans JL, Hahn JA, Page-Shafer K et al. Gender differences in sexual and injection risk behavior among active young injection drug users in San Francisco (the UFO Study). *J Urban Health* 2003; 80(1): 137-46

Faggiano F, Vigna-Taglianti F, Versino E, Lemma P. Methadone maintenance at different dosages for opioid dependence. *The Cochrane Database of Systematic Reviews* 2003, Issue 3

Freeman RC, Rodriguez GM, French JF. A comparison of male and female intravenous drug users' risk behaviors for HIV infection. *Am J Drug Alcohol Abuse* 1994; 20(2): 129-57

Gerstein DR, Johnson RA. Characteristics, services, and outcomes of treatment for women. *J Psychopathol Behav Assess* 2000; 22: 325-338

Green CA, Polen MR, Dickinson DM, Lynch FL, Bennett MD. Gender differences in predictors of initiation, retention, and completion in an HMO-based substance abuse treatment program. *J Subst Abuse Treat* 2002; 23(4): 285-95

Greenfield SF, Brooks AJ, Gordon SM, Green CA, Kropp F, McHugh RK, Lincoln M, Hien D, Miele GM. Substance abuse treatment entry, retention, and outcome in women: a review of the literature. *Drug Alcohol Dep* 2007; 86: 1-21

Grella CE, Joshi V. Gender differences in drug treatment careers among clients in the national Drug Abuse Treatment Outcome Study. *Am J Drug Alcohol Abuse* 1999; 25(3): 385-406

Grella CE, Joshi V, Hser YI. Program variation in treatment outcomes among women in residential drug treatment. *Evaluation Rev* 2000; 24(4): 364-383

Grella CE, Joshi V, Anglin MD. Gender differences and treatment outcomes among methadone patients in the Drug Abuse Treatment Outcome Study. *J Maintenance Addictions* 2003; 2(1/2): 103-128

Haseltine FP. Gender differences in addiction and recovery. *J Women Health Gen Based Med* 2000; 9(6): 579-83

Hser YI, Anglin MD, McGlothlin W. Sex differences in addict careers. 1. Initiation of use. *Am J Drug Alcohol Abuse* 1987a; 13(1-2): 33-57

Hser YI, Anglin MD, Booth MW. Sex differences in addict careers. 3. Addiction. *Am J Drug Alcohol Abuse* 1987b; 13(3): 231-51

Hser YI, Huang D, Teruya C, Douglas Anglin M. Gender comparisons of drug abuse treatment outcomes and predictors. *Drug Alcohol Depend* 2003; 72(3): 255-64

Hser YI, Huang YC, Teruya C, Anglin MD. Gender differences in treatment outcomes over a three-year period: a path model analysis. *J Drug Issues* 2004; 34(2): 419-440

Joe GW, Simpson DD. HIV risks, gender, and cocaine use among opiate users. *Drug Alcohol Depend* 1995; 37(1): 23-8

Kelly SM, Schwartz RP, O'Grady KE, Mitchell SG, Reisinger HS, Peterson JA, Agar MH, Brown BS. Gender differences among in- and out-of-treatment opioid-addicted individuals. *Am J Drug Alcohol Abuse* 2009; 35 (1): 38-42

Knight DK, Logan S, Simpson DD. Predictors of program completion for women in residential substance abuse treatment. *Am J Drug Alcohol Abuse* 2001; 27(1): 1-18

Luthar SS, Cushing G, Rounsaville BJ. Gender differences among opioid abusers: pathways to disorder and profiles of psychopathology. *Drug Alcohol Depend* 1996; 43(3): 179-89

Marsh JC, Miller NA. Female clients in substance abuse treatment. *Int J Addict* 1985; 20(6-7): 995-1019

Marsh KL, Simpson DD. Sex differences in opioid addiction careers. *Am J Drug Alcohol Abuse* 1986; 12(4): 309-29

McComish JF, Greenberg R, Ager J, Chruscial H, Laken M. Survival analysis of three treatment modalities in a residential substance abuse program for women and their children. *Outcomes Manag Nurs Pract* 2000; 4(2): 71-7

Messina N, Wish E, Nemes S. Predictors of treatment outcomes in men and women admitted to a therapeutic community. *Am J Drug Alcohol Abuse* 2000; 26(2): 207-227

Mino A, Page D, Dumont P, Broers B. Treatment failure and methadone dose in a public methadone maintenance treatment programme in Geneva. *Drug Alcohol Depend* 1998; 50(3): 233-9

Petry NM, Bickel WK. Gender differences in hostility of opioid-dependent outpatients: role in early treatment termination. *Drug Alcohol Depend* 2000; 58(1-2): 27-33

Powis B, Griffiths P, Gossop M, Strang J. The differences between male and female drug users: community samples of heroin and cocaine users compared. *Subst Use Misuse* 1996; 31(5): 529-43

Puigdollers E, Domingo-Salvany A, Brugal MT, Torrens M, Alvaros J, Castello C, Magri N, Martin S, Vazquez JM. Characteristics of heroin addicts entering methadone maintenance treatment: quality of life and gender. *Substance Use Misuse* 2004; 39 (9): 1353-1368

Riehman KS, Iguchi MY, Zeller M, Morral AR. The influence of partner drug use and relationship power on treatment engagement. *Drug Alcohol Depend* 2003; 70(1): 1-10

Rosenbaum M. Sex roles among deviants; the woman addict. *Int J Addict* 1981; 16(5): 859-77

Rowan-Szal GA, Chatham LR, Joe GW, Simpson DD. Services provided during methadone treatment. A gender comparison. *J Subs Abuse Treat* 2000; 19: 7-14

Schottenfeld RS, Pakes JR, Kosten TR. Prognostic factors in Buprenorphine- versus methadone-maintained patients. *J Nerv Ment Dis* 1998; 186(1): 35-43

Simpson DD, Joe GW, Broome KM, Hiller ML, Knight K, Rowan-Szal GA. Program diversity and treatment retention rates in the Drug Abuse Treatment Outcome Study (DATOS). *Psychology of Addictive Behaviors* 1997; 11(4): 279-293.

Sherman SG, Latkin CA, Gielen AC. Social factors related to syringe sharing among injecting partners: a focus on gender. *Subst Use Misuse* 2001; 36(14): 2113-36

Stewart D, Gossop M, Marsden J, Kidd T, Treacy S. Similarities in outcomes for men and women after drug misuse treatment: results from the National Treatment Outcome Research Study (NTORS). *Drug Alcohol Rev* 2003; 22(1): 35-41

Stocco P, Llopis Llacer JJ, de Fazio L, Calafat A, Mendes F. Women drug abuse in Europe: gender identity. *IREFREA* 2000

Suffet F. Female drug use: some observations. *Int J Addict* 1976; 11(1): 19-33

Szuster RR, Rich LL, Chung A, Bisconer SW. Treatment retention in women's residential chemical dependency treatment: the effect of admission with children. *Subst Use Misuse* 1996; 31(8):1001-13

Wechsberg WM, Craddock SG, Hubbard RL. How are women who enter substance abuse treatment different than men? A gender comparison from the drug abuse treatment outcome study. *Drugs and Society.* 1998; 13(1-2): 97-115

Winhusen TM, Kropp F. Psychosocial treatments for women with substance use disorders. *Obstetr Gynecol Clin N Am* 2003; 30: 483-499

Yeom HS, Shepard DS. Cost-effectiveness of a mixed-gender aftercare program for substance abuse: decomposing measured and unmeasured gender differences. *J Ment Health Policy Econ* 2007; 10(4): 207-219

Zilberman ML, Tavares H, Blume SB, el-Guebaly N. Substance use disorders: sex differences and psychiatric comorbidities. *Can J Psychiatry* 2003; 48(1): 5-13

Successful examples of promoting gender-responsive approaches to drug treatment programs

Teddi Shihadeh

Foreign Affairs Officer, Policy Planning and Coordination, Bureau of International Narcotics and Law Enforcement Affairs, Department of State, Washington DC, USA

Introduction

U.S. Government commitments to gender equality and women's empowerment

In recent years, the United States government has brought unprecedented attention to the growing body of evidence that supports a relationship between gender equality and the successful pursuit of nations' security as well as foreign policy objectives. Investments in women's health, education, and employment, for example, correlate with more positive development outcomes and greater economic growth. Women's political and social participation strengthens institutions, making them more representative and better performing. Data also shows that women bring a range of unique experiences and contributions to making and keeping peace that lead to improved security for entire societies.

The United States has promulgated new policies and approaches that reflect and promote gender equality and advancement of the status of women and girls as key means for achieving U.S. National security and foreign policy objectives. The U.S. National Security Strategy (2010) specifically recognizes that countries are more peaceful and prosperous when women are accorded full and equal rights and opportunity, and that, when those rights and opportunities are denied, countries often lag behind. In addition, the 2010 Quadrennial Diplomacy and Development Review (QDDR) identifies women as an integral part of U.S. diplomacy and development - not simply as beneficiaries, but as agents of peace, reconciliation, development, growth, and stability. The QDDR directs the U.S. Department of State and U.S. Agency for International Development (USAID) to apply a focus on gender equality across U.S. diplomatic and development efforts. To accomplish the vision outlined in the National Security Strategy and the QDDR, the U.S. Department of State and USAID have issued policy guidance to require that gender equality be incorporated into policy development, strategic and budget planning, implementation of policies and programs, management and training, and monitoring and evaluation of results.

The United States' commitment to the promotion of gender equality aligns with those of many bilateral and multilateral partners, including the United Nations

(UN). UN General Assembly and Security Council resolutions commit the UN and member states to advance the status of women and girls around the world in order to advance global stability, prosperity, and peace. In 2000, the UN Security Council recognized the significant role women must play in peacebuilding, adopting UN Security Council Resolution 1325. Resolution 1325 and subsequent resolutions (1820, 1888, 1889, and 1960) stress the importance of women's equal participation and full involvement in all efforts for the maintenance and promotion of peace and security and their protection from violence. These resolutions urge all actors to incorporate gender perspectives in the pursuit of sustainable peace and security for all.

These goals can only be realized through international partnership and collaboration. A vital investment in women's social, political, and economic participation is essential to address virtually every challenge we face as nations and as a global community. In recognition of this fact, President Obama, joining regional organizations and countries of the Global North and South, in December 2011, released the U.S. National Action Plan on Women, Peace and Security, describing the United States' course to accelerate and better coordinate our efforts to advance women's inclusion in peacebuilding and their protection from violence.

Addressing an important barrier to women's social, political, and economic participation- substance abuse and dependence

In the past thirty years, the number of women addicted to drugs and alcohol has increased dramatically. Studies suggest that female substance abusers experience a particular social stigma that often prevents them from accessing treatment. Drug abuse inhibits the participation of women in all aspects of society.

In response to the growing number of drug-addicted women worldwide, the U.S. Department of State's Bureau of International Narcotics and Law Enforcement Affairs (INL) is increasingly focused on improving and expanding gender-responsive drug rehabilitation services to serve women. Specialized programming that addresses the unique needs of addicted women is typically offered in tandem with services to support children who are impacted by their parents' or other family members' addiction or may be addicts themselves. INL's ongoing expansion of women's services, including gender-responsive training curricula, treatment protocols, and family-focused programs, fully incorporates evidence-based approaches and best practices, with the ultimate goal of helping these women to achieve sustainable, drug-free lifestyles.

Through this expansion, INL has seen an improvement in women's social functioning and mental health status, including a decrease in suicide ideation and suicide attempts. In addition, the increase in number of days worked post-treatment helped improve women's income generation for the family. The effects illustrate that these programs assist in providing women with increased social and economic opportunities.

INL-funded training: guiding the recovery of women (GROW)

A growing body of research demonstrates that female substance abusers differ substantially from substance-abusing men in their patterns of abuse and related issues. Case studies from around the world have documented that women with substance use problems experience significant barriers to accessing treatment, and are significantly underrepresented in treatment settings. Barriers to treatment are often rooted in societal norms and attitudes, cultural taboos, and stigma towards women with substance abuse problems. Many addicted women suffer paralyzing guilt for “failing” to meet societal expectations and to fulfill their role as “mother” or “nurturer,” making it especially difficult to acknowledge their drug dependency and seek help. Others are unable to overcome deep shame associated with effects of domestic violence, sexual abuse, and other trauma. Finally, for women experiencing sustained conditions of extreme distress, such as in the case of war-torn Afghanistan, substance use may appear as the solution to a problem from which there seems no escape.

In the past decade, an increasing number of countries have promoted gender-responsive services for women through: policy statements; inclusion in national drug strategies; the development of treatment best-practices, guidelines and standards, symposiums, and reports; and the dissemination of information on model programs. As international awareness of the need for gender-responsive services has grown, drug treatment professionals have sought information on proven approaches that address complex conditions faced by addicted women.

In 2007, armed with research evidence showing that women, especially addicted women with children, face a unique set of psychological, social, and logistical barriers to treatment and recovery, and in response to the growing number of substance-abusing women worldwide, INL began leading a charge for excellence in women’s treatment by convening a panel of dedicated and experienced experts on women’s substance abuse treatment issues. The panel was asked to develop a comprehensive training curriculum that would meet the special needs of women, educate treatment providers and professionals, and promote gender-responsive addiction treatment as a global “best practice.” This effort resulted in the Guiding the Recovery of Women (GROW) Curriculum, which postulates that “women grow and/or develop in, through, and toward relationships.” Additionally, an extensive body of research shows that women with addiction issues benefit from improved recovery when services: (1) build on strengths; (2) avoid confrontational approaches; (3) teach coping skills; (4) arrange for special needs such as childcare; (5) address and provide interventions for trauma and abuse; (6) foster family reintegration; (7) build health support networks with shared family goals; and (8) make prevention and emotional support available for children.

GROW is designed to train treatment professionals to address the many underlying issues that cause women to be a vulnerable group for substance abuse, including structural issues such as child care, housing, employment, and

marital status as well as social, cultural and personal beliefs, and behaviors that often punish and stigmatize parenting and pregnant women who abuse drugs. At its core, the GROW curriculum provides a practical research-based approach to the theory and practice of gender-responsive drug treatment that covers topics in theories of addiction, models of treatment, psychology of women, and how to apply theoretical knowledge in everyday situations. The basic GROW curriculum is a five-day training that covers the philosophy of gender-based treatment and a range of topics specific to treatment and recovery for substance abusing women, such as the psycho-social development of women, impact of trauma and post-traumatic stress disorder on recovery, issues of co-occurring disorders, and barriers to the treatment process that both women and treatment practitioners often experience. The curriculum combines lecture presentations, practical applications/small-group exercises, journal writing and discussions, and provides participants with tools to create their own action plans for improving treatment services for women in their respective countries and organizations.

Since INL first piloted the basic GROW curriculum in 2008, the program has expanded under the guidance of the expert panel. In addition to the basic GROW, the curriculum includes eight GROW-specific topics that have been designed to train treatment professionals to address many underlying issues that can affect women's substance abuse treatment and recovery, and contribute to cycles of relapse. The GROW special topic areas at this time include: (1) Pregnant Addicted Women, (2) Women and Children, (3) Domestic Violence, (4) Trauma, (5) Co-occurring Disorders, (6) Adolescent Girls, (7) Relapse Prevention, and (8) Aftercare/Continuing Care. A ninth special topic on Substance Abuse Treatment and Family Therapy is planned for completion in early 2013.

Worldwide dissemination of the grow curriculum

The basic GROW curriculum was first piloted in Georgetown, Guyana. Since 2008, INL has sponsored the basic GROW training, along with GROW special topic curriculum in Brazil, Ecuador, Guyana, Kenya, Mexico, Nigeria, Peru, and South Africa. In the fall of 2012, a group of women treatment providers from Afghanistan attended training in Italy. From the outset, GROW trainings have sparked interest in the broader needs of substance-abusing women and attracted increasingly wider circles of professionals, including general medical doctors, psychiatrists, neuropsychologists, mental health psychologists, mental health managers, psychotherapists, social workers, counselors, nurses, university professors, health clinic managers, hospital administrators, anthropologists, governmental and non-governmental agency personnel, and policymakers.

Through the GROW curriculum, INL has established a foundation of quality service delivery standards for substance abuse treatment and recovery services for women around the world. INL intends to continue supporting and promoting GROW training in the coming years as part of its commitment to address social, cultural, and economic barriers that have previously blocked women's access to treatment and contributed to the cycle of addiction.

Quick facts

- A growing body of research found that addiction treatment is most successful when it is gender-responsive.
- As international awareness of the need for gender-responsive services has grown, drug treatment professionals increasingly seek information on proven approaches to help women recover from drug addiction.
- The INL-funded GROW curriculum was developed by a panel of experts on women's substance abuse treatment issues to educate treatment providers and other professionals on the special needs of women.
- GROW curriculum includes: Basic GROW, and eight special topics, including: Pregnant Addicted Women, Women and Children, Domestic Violence, Trauma, Co-occurring Disorders, Adolescent Girls, Relapse Prevention, and Aftercare/Continuing Care.

INL-funded treatment facilitating recovery for women

Recognizing that gender-responsive treatment is key to successful drug demand reduction, INL funds programs that bring quality substance abuse treatment to women across the globe. In addition to providing a host of training programs to currently existing treatment facilities, INL's efforts also include the creation and sponsorship of residential treatment facilities for women. Research demonstrates that longer stays in residential treatment programs increase the chances for successful recovery, especially for female addicts. In keeping with these findings, INL has funded treatment centers that provide long-term residential care for women, also in Brazil.

Brazil: all female treatment

In October 2007, INL and the Associação Promocional Oração e Trabalho (APOT) – the Prayer and Work Outreach Association – created an all-female substance abuse treatment program on its campus in Campinas, Brazil. The facility, Our Lady of Guadalupe Prevention and Assistance Center, complements Brazil's many male substance abuse treatment facilities. With a 20-bed capacity, Our Lady of Guadalupe provides long-term treatment with average patient stays of five to six months. The program is designed not only to treat drug addiction, but also to reintegrate women into their families and communities, breaking the cycle of addictive behavior. The program is a 12-step recovery process, including norms of living, spiritual exercise, physical education, individual and group counseling, trauma-informed therapy, self-help, crafts, relapse prevention, disciplinary and maternity meetings, and work therapy. Additionally, to facilitate their recovery, the women maintain daily contact with their children and weekly family visits are strongly encouraged. When visiting, the entire family participates in recovery support group sessions to strengthen bonds and forge new psychological partners in recovery.

INL-funded outcome evaluations on women's drug treatment

Thailand

In response to Thailand's drug problem, where methamphetamine has replaced opium as the primary drug of abuse, INL conducted trainings for Thailand's drug treatment facilities in the Therapeutic Community (TC) model of drug treatment. A recent evaluation of those facilities revealed that Thai TCs are extremely successful at reducing drug-use and its consequences, especially among women. Of the 105 females that were part of the evaluation, 92 percent reported using any drug (excluding alcohol) before treatment . A small percentage of clients participating in the evaluation entered the treatment directly from hospital settings run by the Ministry of Public Health. As such, their opportunity to use drugs in that 30- day period prior to entering treatment was severely limited. This evaluation found that six months after treatment, only 10 percent reported using any drug (Figure 1). This 89-percent reduction in female drug use is exemplary, as six-month recovery rates exceeding 80 percent are rare. Females in the study had similar decreases for all drug types, most notably methamphetamine, marijuana, opiates, and inhalants.

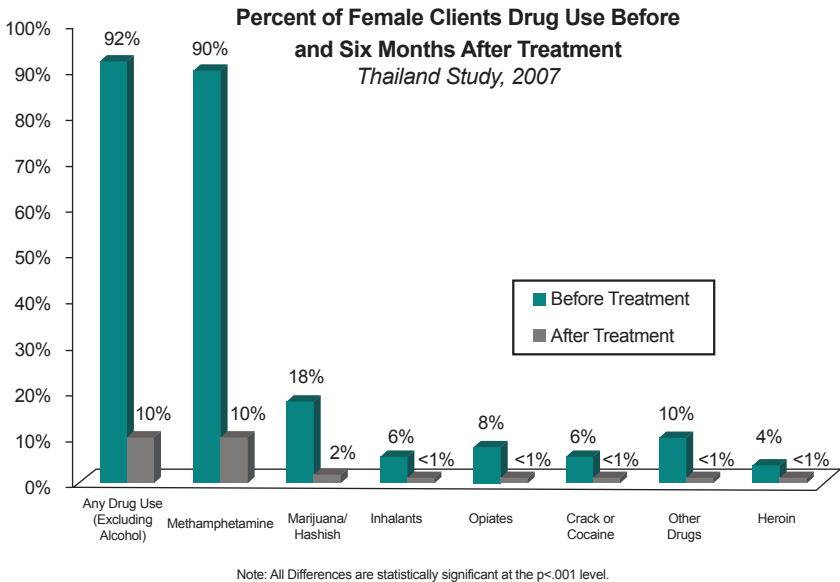


Figure 1: Percent of Female Clients' Drug Use Before and Six Months After Treatment

Colombia

TC facilities in Colombia that have received INL-funded training have also demonstrated empirical success of treating women. A completed evaluation of TC treatment provider trainings in Medellin, Cali, and Bogota demonstrates that the programs have successfully yielded impressive outcomes for women in treatment. The Colombian evaluation shows that 55 percent of females entering inpatient treatment in Colombia used drugs prior to treatment. Pre-treatment drug use was calculated by measuring usage with in the past 30 days. 51 percent of the female clients in the treatment programs participating in the evaluation entered treatment directly from prisons and their opportunity to use drugs 30 days prior to entering treatment was severely limited. This study found that after these women participated in the treatment program only 36 percent of women reported using any drugs six months after the program— a reduction of 35 percent (Figure 2).

Arrests and criminal activities among women were reduced by 93 percent pre- and post- treatment. With the introduction of GROW in Colombia, INL anticipates improving these numbers further.

Responding to evidence that female substance abusers face unique barriers to treatment and require gender-responsive treatment, INL has sponsored programs in countries throughout the world aimed at providing efficient and effective drug treatment to this special population. INL supported trainings for programs in Thailand

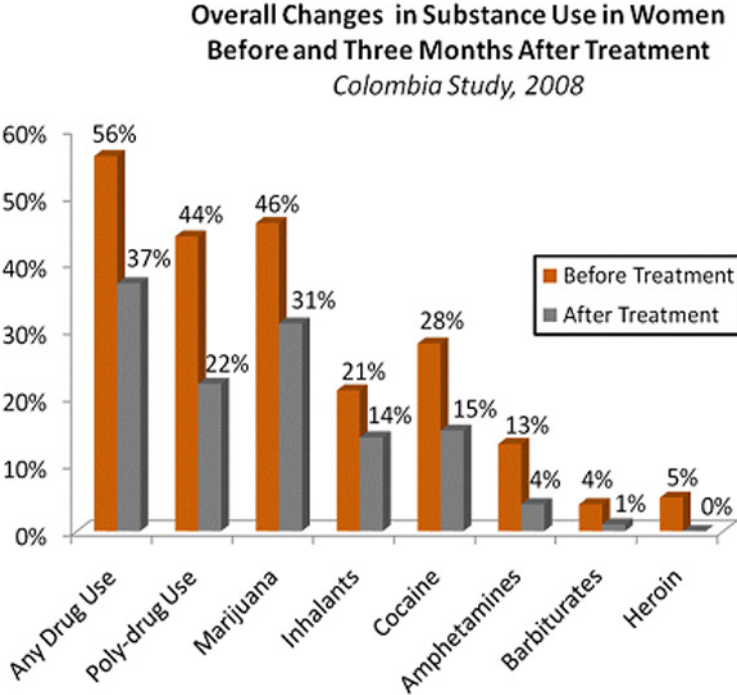


Figure 2: Overall Changes in Substance Abuse in Women Before and 90 Days After Treatment

and Colombia have already shown empirical success when treating female addicts and INL continues to enhance service provider training by creating and piloting a training curriculum catering specifically to the treatment of women.

Quick facts

- Science-based outcome evaluation revealed that overall drug use among women was reduced from 92 percent to 10 percent and methamphetamine abuse was reduced from 90 percent to 10 percent (pre- and post-treatment) in target treatment programs in Thailand (Figure 1).
- A science-based outcome evaluation revealed that overall drug use among women was reduced from 56 percent to 37 percent and cocaine abuse was reduced from 28 percent to 15 percent (pre- and post-treatment) in target treatment programs in Colombia (Figure 2).
- Arrests and criminal activities among women were reduced by over 93 percent each (pre- and post-treatment) in target treatment programs in Colombia.
- In Afghanistan, INL's residential, outpatient, and home-based treatment programs reach over 3,804 substance abusing women per year.
- With INL assistance, Brazil created a long-term residential treatment center that specializes in women's treatment. In 2009, the program was expanded to include children of substance abusing mothers and pregnant and post-partum women.
- INL developed the GROW curriculum to train drug treatment providers on the latest theories and practices in gender-responsive treatment in the United States and abroad.

INL's efforts to curb drug demand in Afghanistan

INL treatment centers in Afghanistan¹

INL has supported the expansion of treatment programs throughout Afghanistan with special focus on women. In 2007, INL created the Sanga Amaj Center, the first and only women's residential substance abuse treatment center in Afghanistan. With bed space for 25 women, the Center provides residential substance abuse treatment to 200 women a year. In addition, the program provides home-based treatment to 80 women per year, thereby supplying services to a total of 280 women on an annual basis. Of particular concern in Afghanistan is the ability of women to overcome the stigma of drug addiction and successfully obtain work. To supplement treatment and fulfill this need, the Sanja Amaj Center also provides vocational skills training to 100 women annually. Further, to assist drug-addicted mothers seeking treatment, the Center provides educational, social and recreational services to 200 dependent children of women in treatment each year.

¹This section includes additional Figures 1 and 2, which are separate and distinct from the aforementioned Figures 1 and 2.

Since 2007, INL has funded seven additional residential treatment centers for women, for a total of eight centers as of November 2012. Each of these residential women's centers has a corresponding facility for children. Altogether, these 16 centers treat 1,520 women and 1,720 children on an annual basis. INL also funds 33 home-based and outpatient treatment centers that provide services to an additional 2,284 women per year. Three specialized residential facilities for female adolescents treat 150 clients per year.

In summary, as of November 2012, INL-funded services in Afghanistan deliver treatment to 3,804 women per year through a combination of home-based, outpatient, and residential programs, as well as provide therapeutic, educational, social, and recreational services to 1,720 dependent children of women in treatment per year. Finally, an additional 2,000 children will be treated via the creation of eight specialized, outpatient clinics. INL is confident that the success of these programs will encourage more Afghan women to seek much needed treatment.

INL training in Afghanistan

Since 2008, INL has worked in Afghanistan to help manage the consequences of its vast opium production. Through a partnership with the Colombo Plan Drug Advisory Program (CPDAP), INL has supported trainings of Afghan drug treatment center staff and has funded the centers themselves. These trainings center around the CPDAP model, which helps staff develop a variety of skills related to the full continuum of substance abuse treatment, from identification of substance misuse to relapse prevention. This summary details an evaluation of the CPDAP trainings and examines short-term outcomes of patients treated at seven trained centers in Afghanistan. The evaluation indicates that the CPDAP-trained programs had a positive effect on program participants, particularly with regard to reduced illegal drug use, opiate use, and criminal behavior.

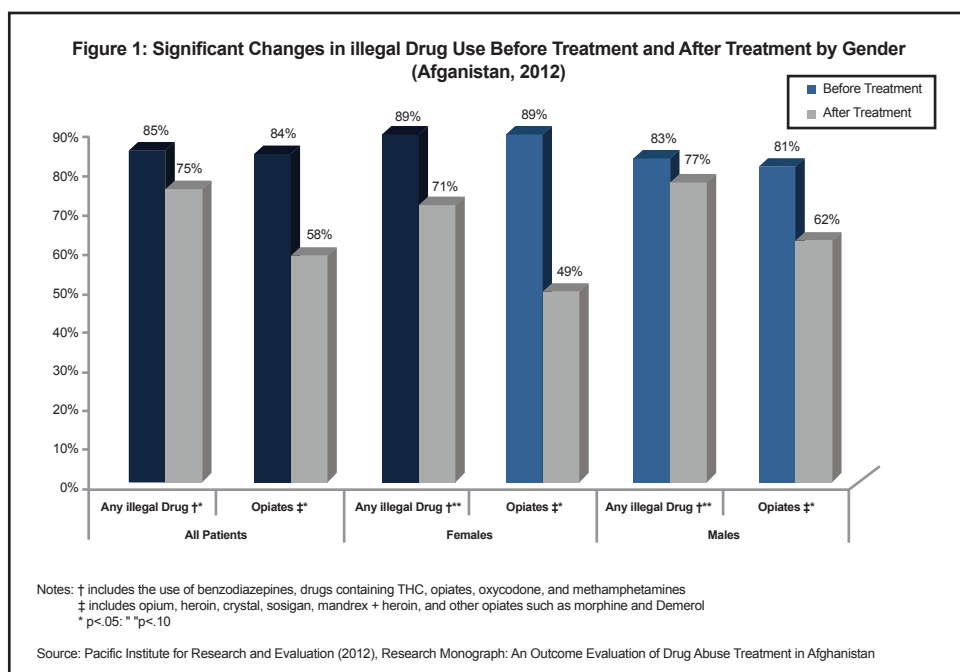
In 2009, INL funded an evaluation of seven residential drug treatment programs that received CPDAP training and implemented the CPDAP model. This evaluation aimed to examine treatment center patients' change in illegal drug use, alcohol use, and criminal behavior from before entering the treatment program to after treatment was completed. It also reviewed the level of implementation of the CPDAP treatment model within the drug treatment centers. These programs were located in Balkh, Bamyan, Herat, Kabul, Paktia, and Wardak. Three of the programs serve women and children and four of the programs serve men only.

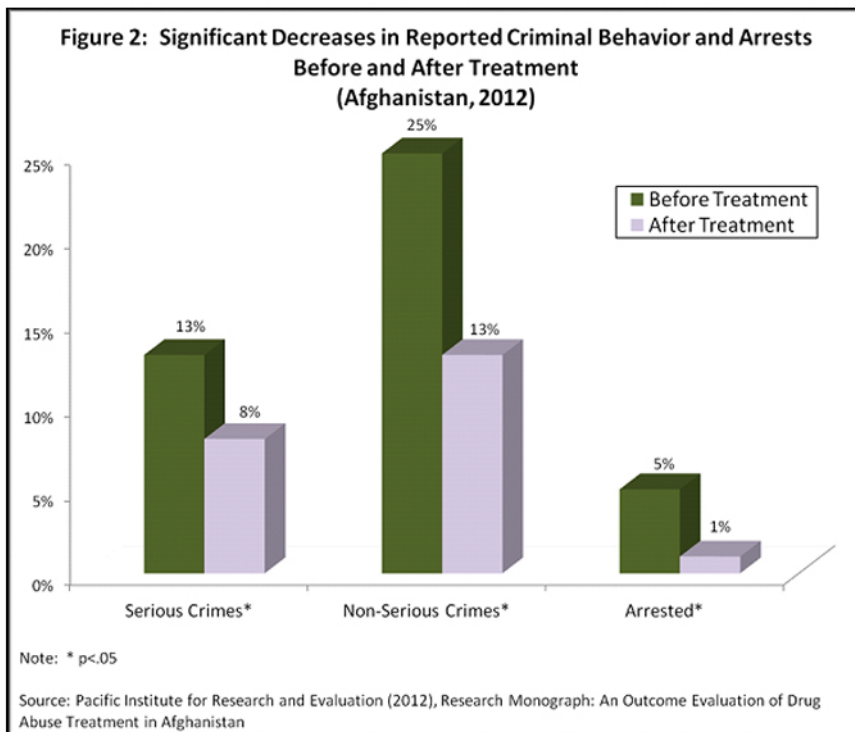
The programs have the capacity to serve 1,452 patients each year via a 45-day residential treatment program and a 365-day outpatient program. The study sample consisted of 504 patients who received services at the seven drug treatment centers. These patients participated in a baseline interview one to five days after completing detoxification and a follow-up interview 12 months after inpatient treatment was completed or approximately 13.5 months after the baseline interview. There were 353 patients that participated in the post-treatment interviews, yielding a 70-percent retention rate. To corroborate the post-treatment interviews, 97 percent of interviewed patients completed a urinalysis test.

Treatment in the seven programs that received CPDAP training positively impacted the patients involved in the study. Baseline to post-treatment interviews

observed statistically significant decreases in the use of any illegal drug in the past 30 days, including opiates. While the overall use of illegal drugs went down, the increase in marijuana and pharmaceuticals pre/post- treatment was noted. Figure 1 below shows these statistically significant changes for all patients and by gender for any illegal drug and for opiates during the baseline to post-treatment interview period. At the baseline interviews, 85 percent of the patients reported using at least one illegal drug in the past 30 days. Only 75 percent reported using illegal drugs at the time of the post-treatment interview, representing a 12-percent decrease from the baseline. Additionally, 84 percent of the patients reported using opiates in the 30 days before treatment, while only 58 percent used at the time of the post-treatment interview, representing a 31 percent decrease from the baseline. All prevalence reductions are statistically significant ($p < .05$).

The study also examined if there were any gender differences in illegal drug use among treatment center patients. Of the 504 patients interviewed at baseline, 175 (35 percent) were female and 329 (65 percent) were male. Likewise, at the post-treatment follow up, 121 of 353 patients (34 percent) were female while 232 (66 percent) were male, making the before/after groups comparable. For past 30-day use of any illegal drugs, female patients realized a 20- percent decrease from baseline to the post-treatment interview, while males experienced an eight percent decrease during this timeframe. Further, for past 30-day use of opiates, the female patients had a 45-percent decrease from baseline to the post-treatment interview, while male patients experienced a 23-percent decrease. The difference in the decreases of opiate use between the male and female patients was statistically significant, as indicated here in Figure 1.





Criminal behavior as an outcome is often examined in substance abuse treatment studies as drugs and crime are undeniably linked. In the current study, there were significant reductions in criminal behavior among the participating patients from baseline to the post-treatment interviews. Among self-reported serious crimes (e.g. robbery, arson, and violence against others) committed in the past month, there was a 40 percent reduction from 13 percent at baseline to eight percent at the post-treatment interview (Figure 2). Likewise, there was a 48 percent reduction in the frequency of self-reported non-serious crimes (e.g. forgery, buying and selling stolen property, and theft) committed in the past month, from 25 percent at baseline to 13 percent at the post-treatment interview. The number of self-reported arrests in the past six months also decreased from baseline to post-treatment interviews by 46 percent, as did the number of arrests in the past 30 days, from five percent to one percent (73 percent decrease). All of the above decreases were statistically significant.

The study also provided a descriptive analysis of the implementation of the CPDAP model at each of the seven treatment centers. The analysis reviewed treatment participation, patient length of stay, patient satisfaction, and interviews with each of the seven treatment center directors concerning implementation fidelity. Among the 503 patients, 95 percent completed inpatient treatment and 85 percent of patients completed outpatient treatment. These observations are important to note as the study also found that patients who complete outpatient treatment were six times more likely to have a reduction in any illegal drug use in the past 30 days and five times more likely to experience a decrease in past 30-day opiate use.

Overall, the seven INL-funded drug treatment programs in Afghanistan are positively impacting the lives of participants. The evaluation revealed positive outcomes for a sample of patients over a 13.5-month period. From baseline to post-treatment interviews, the sample had significantly less illegal drug use and less self-reported criminal behavior.

Conclusion

These programs demonstrate that investments targeting specialized treatment to women's health can yield significant results for curbing drug demand in female addicts. Substance abuse addiction is an important barrier to women's social, political, and economic participation. Addiction prevents women from achieving more effective social and political roles in their societies, and given women's unique perspective on creating and maintaining peace, this lack of female participation can weaken a country's national security. For this reason, it is imperative that actors consider gender perspectives, such as the ones described above, when designing and implementing drug treatment programs.

The importance of developing a reliable knowledge base in the treatment offered: the EU experience

Marica Ferri (1), Alessandra Bo (2), Linda Montanari (3), Roland Simon (4)

(1) Scientific analyst, Best Practice Interventions, Best Practice and Scientific Partners Unit, European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)

(2) Researcher, Best Practice Interventions, Best Practice and Scientific Partners Unit, European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)

(3) Project Manager, Best Practice Interventions, Best Practice and Scientific Partners Unit, European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)

(4) Head, Best Practice Interventions, Best Practice and Scientific Partners Unit, European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)

Introduction

The present chapter is aimed at sharing the European experience in monitoring and analysing information on the drug situation and in sharing best practices to respond to the problems of all the people directly or indirectly affected by drug use. More details can be found mainly in two publications by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) devoted respectively to gender perspective on drug use (EMCDDA, 2006) and to pregnancy, childcare and the family (EMCDDA, 2012a)².

This publication is part of the contribution that the EMCDDA provided to the promotion of best practices within the Project DAWN (Drug and Alcohol Women Network). Under the header of “gender mainstreaming” the focus of this chapter is mainly on the special needs and requirements of female drug users. This restriction is in line with the general gender debate of the last decades.

The first chapter offers a broad prospective on the existing information on epidemiology of drug use and gender differences in Europe. The gender ratio among patients in treatment is illustrated in chapter two by specific primary drug of use accompanied by a brief discussion on the effect modification that gender has in treatment access, completion, and outcome. In the second and third chapters we also devote some thoughts to pregnancy and motherhood in drug users with

² The present chapter is based on many publications of EMCDDA and some extracts have been maintained unaltered from the original. The authors are indebted with the Scientific Staff, the data managers, the editors and the scientific writers of EMCDDA.

particular attention to the specific risks of drug use during pregnancy and how responses to this specific condition are provided across the European countries.

Policy and legal framework for pregnant drug users, drug using parents and their children at the European and national level are also described in the conclusion of each sub-section and in a devoted section to describe the frameworks concerning drug using parents and their children.

The sixth section is aimed to identify the guidelines and other quality assurance tools which are in place in Europe to provide effective responses to drug users in pregnancy and when they have family responsibility.

The EMCDDA and its monitoring activities

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) was established in 1993. Inaugurated in Lisbon in 1995, it is one of the EU's decentralised agencies.

The EMCDDA provides the EU and its Member States with a factual overview of European drug problems and a solid evidence base to support the drugs debate. Today it offers policymakers the data they need for drawing up informed drug laws and strategies. It also helps professionals and practitioners working in the field to pinpoint best practices and new areas of research. The agency underpins the work undertaken at EU and Member State level to tackle drug use. It does this by improving the quality of data available to monitor progress and benchmark different initiatives. It operates an early warning system to facilitate rapid responses to new threats. It also makes evidence about good practice widely available.

The EMCDDA uses five key epidemiological indicators to achieve its goal. These indicators have been developed by the Centre in close collaboration with the Reitox network, experts across Europe, and with other international organisations competent in the field of drugs and drug addiction. The five key epidemiological indicators underpin the EMCDDA's reporting on trends and developments in the EU drug situation. They are also a necessary component of any analysis of the coverage of responses or the assessment of the impact of policies and actions. Each indicator collects, among others, information on the gender of the target population and EMCDDA main annual publication, the Annual Report, include statistics on the gender ratio of drug users. Furthermore periodically, specific publications have been devoted to gender issues in drug use.

An overview on gender specific aspects of drug treatment

Evidence of effectiveness for drug treatment

The number of studies on the effectiveness of drug related interventions has multiplied over the last decades.

Today a good body of evidence exists for some treatment interventions. Nevertheless, studies providing information on gender specific aspects of drug-use treatment are rare. Usually women are less recruited in clinical trials than men, for a number of well

studied reasons (Meinert and Gilpin, 2001). Potential pregnancies, and having more often than men the responsibility of taking care of others, are some of the factors that can reduce the availability of women to participate in clinical studies. Other specifically epidemiological characteristics of the feminine gender, such as having lower age specific mortality rates, make women a more expensive target population for clinical trials. In fact, larger sample size and longer term studies are needed to detect an impact in a population made of women.

Nevertheless, some recent studies have included opioid pregnant women in order to identify the best substitution treatment to maintain the mother stable without causing harm to the new born baby (Jones et al., 2009; Minozzi et al., 2008). The studies proved that Methadone and Buprenorphine resulted to be feasible options to help pregnant women without causing harm to their offspring.

Treatment in Europe

Treatment facilities are usually organised around the needs of opioid addicts, who are mainly men. Also amongst the second biggest client group – cannabis users – males are much more frequent. On the other side those treatment interventions that do have a gender-specific component are mainly targeted to women's needs and, in particular, to pregnant drug users or women with children (EMCDDA, 2006). Thus, in practice, gender-specific treatment often means treatment targeted towards women drug users. Most European countries report having at least one treatment unit or programme exclusively for women or for women with children. In recent years, the introduction of high-quality management at drugs agencies seems to have played a role in several countries in achieving a higher target group specialisation, although coverage of gender-specific service provision appears to be low and is often limited to major urban centres. The most common types of gender-specific intervention include case management approaches that facilitate the mediation of care for pregnant drug users, services that specifically address the mothers and fathers of small children, and specially designed outreach projects targeted at sex workers.

Males by far outnumber females among drug treatment clients. As some research studies have suggested that there may be barriers to service uptake by women. An important question, but one that is difficult to answer, is the extent to which women are underrepresented in the treatment population compared with the population of those who could be considered in need of treatment (EMCDDA, 2006).

All 2011 data available from different types of treatment suggest that, among drug clients asking for treatment for the first time, males outnumber females by a ratio of 4 to 1. Gender ratios among drug clients vary greatly between countries but are generally higher in the southern European countries than in northern countries. In 2011, the highest proportions of female clients were in, Finland, Czech Republic and United Kingdom, and the lowest were in Italy, Cyprus and Turkey.

Gender difference in treatment access, completion and outcome

The structural, social, cultural and personal barriers to treatment that women can face are multiple (EMCDDA, 2006). A report by the United Nations Office on

Drugs and Crime (UNODC, 2004) shows that, among individuals with substance use problems, women are more likely than men to: a) have a partner with a substance use problem; b) childcare responsibilities; c) severe problems at the beginning of treatment; d) trauma related to physical and sexual abuse; and e) concurrent psychiatric disorders. Research on gender differences in the access, duration, completion, and outcome of treatment suggests that generalisations on gender cannot easily be made. In some analyses, women are reported to be more likely than men to access treatment; the reasons for this may be related to the existence of specific services offered to women or to the fact that women need treatment more than men if they are pregnant or if they have children (see next section). In other studies, women are reported to seek treatment proportionately less often than men because of the associated social stigma.

There is not enough information about gender differences in treatment duration, completion, and outcome in Europe to draw any firm conclusions. For example, a German analysis of outpatient treatment data reports that men require shorter treatment duration and have a better outcome, whereas, in Slovakia, among clients of a methadone programme, the success rate was higher for women than for men. More research is needed to better understand gender differences in all treatment processes; the analysis should take into account differences in the clients' characteristics, their patterns of drug use, and the differences between the types of treatment offered (for example outpatient/inpatient; medical/counselling).

Primary drug used	Overall gender ratio
Cannabis	5,2
Stimulants	2,2
COCAINE	5,7
OPIOIDS	3,3
Hypnotics and sedatives	1,2
Hallucinogens	2,6

Table 2: Gender ratio by primary drug of clients entering treatment, (2011 or most recent year available. new outpatient clients, ratio of males to females by country and primary drug
 Statistical Bulletin table TDI 21 part (i) <http://www.emcdda.europa.eu/stats12#display:/stats12/tditab21a>

Pregnant women

The risks of using drugs during pregnancy have been well documented, and the harms related to drug use in families with children are well known. However, not all pregnant women who use drugs have problems during or after their pregnancies, and not all parents with drug problems have difficulty caring for their children. Still, a common and often well-founded concern of drug-using parents is that they are inevitably viewed as neglectful and face the risk of having their children taken away from them. There are, however, an array of programmes to help both pregnant drug

users and drug-using parents. To date, though, no comprehensive information has been available on the extent of these problems in Europe, and how they are responded to at European level.

The true prevalence of drug use among pregnant women, however, is difficult to ascertain, and differences across countries or in certain areas may also exist. Ireland, for example, reported that the proportion of urine samples that tested positive for drug metabolites was higher among women admitted for labour, compared to

Substance	Potential complications during pregnancy
Alcohol	<ul style="list-style-type: none"> • miscarriage • decreased foetal growth • preterm delivery • perinatal mortality • low birth weight • foetal alcohol spectrum disorder
Tobacco	<ul style="list-style-type: none"> • miscarriage • perinatal mortality • low birth weight
Cannabis	<ul style="list-style-type: none"> • miscarriage • foetal morbidity • low birth weight • developmental problems in childhood
Amphetamines	<ul style="list-style-type: none"> • foetal morbidity • low birth weight • premature birth
Cocaine	<ul style="list-style-type: none"> • premature rupture of the membranes and placental abruption • problems during childhood concerning behaviour, attention, language and cognition
Opioids	<ul style="list-style-type: none"> • impaired intrauterine growth • low birth weight • premature birth • respiratory depression • neonatal withdrawal symptom • perinatal mortality related to withdrawal
Volatile substances	<ul style="list-style-type: none"> • adverse birth outcomes • neonatal withdrawal syndrome

Table 3: Health harms associated with substance use during pregnancy.
 NB: The effect of these drugs may be confounded by polydrug use and/or other health and lifestyle factors associated with drug use.

Source: A summary of the health harms of drugs. The Centre for Public Health, Faculty of Health & Applied Social Science, Liverpool John Moore's University, on behalf of the Department of Health and National Treatment Agency for Substance Misuse (2011)..

women attending scheduled antenatal visits. One reason for this may be that women who use drugs are less likely to receive antenatal care than women who are drug free. In Latvia, for example, antenatal care is received before the 12th week of pregnancy by 90% of expectant women in the general population, compared to 70% those who had ever used drugs (EMCDDA, 2012a).

Risks of drug use during pregnancy

All psychoactive drugs, including alcohol, tobacco, and some prescribed medications, may have adverse effects on the pregnancy, the unborn child and the newborn. Different drugs, however, may act differently (Table 3). This may be due not only to the drug itself, but also to the poor overall health and the nutritional status of the drug-using expectant mother. The degree of the impact of drug use during pregnancy largely depends on the intensity of drug use.

Several studies in the Netherlands have assessed the short and long-term effects of cannabis use during pregnancy. Short-term effects included reduced foetal growth, smaller foetal head size, reductions in the foetal placental and cardiac blood flow, and low birth weight (El Marroun et al., 2009). The effect of cannabis (usually of combined use with tobacco) on intrauterine growth seemed stronger than that of antenatal tobacco exposure alone, and heavier use was associated with increased harm (El Marroun et al., 2010). At the age of 18 months, girls - but not boys - who were exposed to cannabis or tobacco in the womb showed increased aggression and attention problems, although the latter association disappeared when controlled for confounders (El Marroun et al., 2011). As the child grows older, however, these effects may disappear.

The vasoconstrictive effect of cocaine and amphetamines, as described by studies in Belgium and Germany, decreases the blood supply in the area of the placenta in pregnant women using these drugs. This may result in miscarriage during the first trimester of pregnancy, and placental abruption, intrauterine death, or premature birth in the third quarter. In addition, retarded foetal growth and reduced head circumference were also observed. While during the first two years of the child no further teratogenic effects³ were described, some studies found an increased incidence of sudden infant deaths and certain behavioural disorders.

Results of research conducted in Germany and Austria indicate that the teratogenic effects of opioids are fewer than, for example, of alcohol or tobacco. Anomalies during pregnancy and at birth include insufficient foetal growth and intrauterine development of the bones, intrauterine death, premature birth, anomalies in spontaneous movements, and neonatal withdrawal syndrome. One study in Vienna found prenatal dystrophy and microcephaly in 21% and 14%, respectively, of newborns of women who used heroin during their pregnancies. During the first year of life, elevated risks of sudden infant death and delayed statomotoric development have been observed. In some children, microcephaly at birth remained later on in life, resulting in mild cognitive impairment. A range of eye problems, including strabismus, has been reported by studies in the United Kingdom among children who had been exposed to opioids in the womb.

³ Effects that cause developmental malformations in the foetus or later on in the life of the newborn.

Injecting drug users have a higher than average prevalence of blood-borne infectious diseases, and these can be transmitted to the foetus (Gyarmathy et al., 2009). The most common blood-borne infection among injecting drug users is hepatitis C, the level of transmission of which during birth varies depending on a number of factors. Available evidence suggests that mother-to-child transmission of the hepatitis C virus (HCV) occurs only during pregnancy and birth, but not through breastfeeding. A systematic review of worldwide transmission rates found that transmission of HCV from mother to child depends largely on the presence of viral RNA in the mother's blood and whether the mother is co-infected with HIV (Thomas et al., 1998). Among those who are uninfected with HIV, the probability of transmission is 1–3% among HCV RNA-negative women, and 4–6% among HCV RNA-positive women. Among those infected with both HCV and HIV, the probability of HCV transmission can be as high as 41%, and that of HIV is also high.

Responses to drug use among pregnant women: best practices in Europe

Interventions involving pregnant drug users include substance use treatment and antenatal and postnatal programmes. Substitution treatment for drug use during pregnancy, however, is available only for opioid users, with the aim to stabilise the users' lifestyle and encourage them to use antenatal and obstetric services. Antenatal care reduces the complications of pregnancy and birth — especially those related to neonatal withdrawal — and decreases the probability of birth defects. The following chapters give some examples of programmes that provide treatment in a more narrow and wider sense to pregnant women. These data have been collected through the EMCDDA National Focal Points as part of their contribution to an EMCDDA report (EMCDDA, 2006).

Drug treatment

Many opioid users want to cease using when they find out that they are pregnant, but opioid withdrawal is a high-risk option because a return to heroin use during pregnancy can result in poorer obstetric outcomes, and severe opioid withdrawal symptoms may induce spontaneous abortion in the first trimester of pregnancy, or premature labour in the third trimester (WHO, 2009). Therefore, opioid-dependent pregnant women are encouraged to start opioid substitution treatment and those who are already receiving this treatment are advised to continue.

An example of this kind of treatment is a drug liaison midwife service that was initiated in 1999 in each of Dublin's three maternity hospitals to ensure that pregnant opioid users engage in both antenatal and drug services, and that they are stabilised on methadone. A preliminary assessment allows immediate admission to treatment. The mainstay of treatment is opioid substitution with methadone: stabilisation of drug use is emphasised, and women are encouraged to remain on oral methadone throughout their pregnancy. The option to detoxify after the first trimester exists, but women are not pressured to reduce dose or to detoxify. Those who had difficulties stabilising are offered inpatient admission to a specialist drug dependency unit. A

fast-track system to admit pregnant women into treatment is provided in the United Kingdom, where substitute prescribing can ‘occur at any time in pregnancy’ as it is less risky than continued drug use.

Multidisciplinary comprehensive antenatal and postnatal programmes

Several countries reported provision of multidisciplinary comprehensive care programmes⁴. Doctors, psychologists and social workers follow up drug-using women and their children from early pregnancy into childhood to ensure the well-being and healthy development of the mother and the child. The family outpatient centre of Hvidovre Hospital in Denmark is a specialised unit for pregnant women who are or have used drugs, or for families with drug problems (where, for example, the father or family members other than the mother use drugs).

Children born to these mothers are followed up with comprehensive medical and psychological care until they reach school age. Based on this model, the Danish government has established and financed family outpatient centres throughout the country to help pregnant drug users and children who were exposed to drugs in the womb from birth until they start school. The Danish focal point reported that the occurrence of pregnancy and birth complications and birth defects among drug-using pregnant clients decreased considerably in the country as a result of comprehensive antenatal and postnatal care programmes.

Some of these care services, like Benniena in Malta, grew over a decade from a counselling service for pregnant drug users to a comprehensive centre for families affected by drug use. Malta responded to the increasing number of pregnant drug users by creating a working committee on ‘substance abuse mothers’, composed of a multidisciplinary panel including social workers, paediatricians, midwives from all obstetrics wards, paediatric nursing officers, antenatal midwives, and medical doctors. The remit of the working committee is to follow mothers-to-be who have substance use problems and to ensure that drastic measures, such as care/court orders, can be avoided, and that the child is placed within the family of birth if possible.

The HAL (‘drugs, alcohol and pharmaceuticals’) services in Finland form a multi-professional treatment model where a network of maternity outpatient clinics — covering the entire country — provides psychosocial interventions with comprehensive medical care. Two-thirds of HAL clients are referred from maternity clinics and the rest from substance-use or other services, such as emergency outpatient clinics. All university hospitals have HAL services, which treat a total of about 400 substance-using mothers each year, providing pregnancy monitoring (including repeated alcohol and drug tests and laboratory tests relevant for at-risk groups, such as hepatitis B, hepatitis C and HIV), psychiatric and psychological assistance, and paediatric assistance. Children born in the HAL system are followed up regularly with health appointments and visits and by child welfare services until they reach school age. Low-threshold agencies called ‘family ambulatories’ have been established in Norway based on a Danish model, and which in collaboration

⁴ In addition to the examples presented in this section, the provision of multidisciplinary comprehensive care was also reported by Belgium, Luxembourg and the United Kingdom.

with postnatal wards, mental healthcare services and various municipal agencies, provide preventive health assistance to pregnant substance users and follow-ups of their children until they reach school age.

The 'addictology mobile team' of the Port Royal-Cochin hospital group in Paris, France aims to help pregnant drug users to gain or regain parenting abilities. The team, which provides assistance during pregnancy, child birth, and in the post-partum period, consists of five professionals: a psychiatrist and a general practitioner (both specialised in drug addiction), a social worker, a nurse, and a midwife. Further, another 35 projects have been implemented in France since 2010, in order to preserve the health of drug-using mothers, mothers-to-be, and their young or unborn children. All of them exist within specialised drug treatment centres, mainstreamed housing and social reinsertion facilities, and low-threshold services, in collaboration with maternity clinics, emergency wards, and the infant early sociomedical welfare system (including psychiatry).

Several hospitals in Austria (especially in Vienna and Innsbruck) offer a combination of antenatal and postnatal medical, psychosocial, and welfare services for this population. After a one-year pilot project, a programme at the University Hospital of Psychiatry in Innsbruck was initiated, consisting of scheduled examinations and assistance by a midwife available to pregnant women who receive opioid substitution treatment and additional services by the addiction clinic. Many hospitals in Vienna offer comprehensive care, including outreach activities to contact women at an early stage of their pregnancy. For example, the Comprehensive Care Project at the University Hospital in Vienna offers a multi-professional approach including physicians, social workers, pharmacists, nurses, and psychotherapists, providing both antenatal care and aftercare of the children. Expectant mothers receive psychiatric and psychosocial care, and maintenance therapy with methadone, morphine or buprenorphine. Newborns with withdrawal syndrome receive immediate treatment, and all children are followed up on with regular check-ups until age six, and receive therapy (e.g. physiotherapy or speech therapy) when needed. The project has also generated a wealth of longitudinal scientific information on pregnant drug users and their developing children.

In the Netherlands, the Precaution (Voorzorg) programme was developed based on the American Nurse Family Partnership, a project that had been found effective in several randomised controlled trials, and adapted to the Dutch situation. The project follows a standardised protocol, and targets drug-using women under the age of 25, who are at most 28 weeks pregnant and who have no other children, and follows them up until the child is two years old. During this period, participating families receive 60 home visits lasting 60-90 minutes, with a decreasing frequency of once a week after birth to once a month at the end of the project. In Spain, the Red Cross Assistance runs a follow-up programme for high-risk pregnant women, with the goal of reducing the harmful effect of their drug consumption on their lives and on the lives of their newborns. In this project, pregnancy is considered an opportunity to initiate medical follow up and addiction treatment, including substitution therapy, infection control, or psychiatric care, if needed.

A large variety of multidisciplinary comprehensive programmes are available in Germany at local, regional and national levels. The WIGWAM outreach programme in Berlin, for example, is an interdisciplinary cooperation available for pregnant drug users since 1987. In addition to antenatal care, medical help related to birthing, and addiction treatment (including inpatient treatment for newborns with

neonatal abstinence syndrome), women are offered referrals to substitution treatment, psychosocial assistance, home visits, and welfare services. The Early Intervention for Pregnant Women with Substance Addictions (Fruehintervention fuer sucht-mittel-abhaengige Schwangere, KIDS) was initiated in Kassel in 2007 with the objective of reaching pregnant women with substance addictions as early as possible in pregnancy in order to provide referrals to medical and social services. In Portugal, the Integrated Project of Maternal Support provides integrated and global care to pregnant and postpartum addicted woman and their children, following outpatient therapeutic modalities best suited to each situation regarding the treatment, harm-reduction, and reintegration needs of these patients.

Special concerns and populations

One particular concern is the disappearance of drug-using new mothers who leave their newborns in the hospital soon after giving birth, often without even naming them. The Bulgarian focal point, for example, reported this practice — especially among young Roma drug-using women. As a response, a non-governmental organisation ‘For Our Children’ visits the Plovdiv General Hospital for Active Treatment — where many of these abandonment cases have been reported — and provides emotional, psychological and social support, and counselling to birthing women who may be at such risk. The organisation aims to promote reintegration of babies into their biological families, or if that is not possible, support alternative families, especially those next of kin. Additional assistance to pregnant or birthing drug-using women includes the provision of food and items for the baby, such as nappies, bath lotions, and clothes.

A special population among pregnant drug users is those in prison. Comprehensive antenatal services exist, for example, in Dublin, Ireland in Mountjoy Prison, where antenatal care including HIV testing and, if infected, treatment is offered to expecting mothers. These services collaborate closely with community organisations to prepare the mother and her newborn for their eventual life outside prison. Another special population is women with HIV, an infection often related to drug injection. In Estonia, to prevent transmission through breast feeding, infants of HIV-infected women have the opportunity to obtain formula milk for free until the child reaches the age of 12 months.

European policy and legal frameworks concerning pregnant drug users

Regarding legislation concerning pregnant users or children before birth, in some Member States, pregnancy is one criterion that may trigger eligibility or facilitate an application for opioid substitution treatment⁵. Treatment is based on the mother’s consent; Finland and Sweden reported that it was difficult legally to protect a foetus. For example, to protect the health of the foetus, the drug using mother might be compelled to submit to care. Nevertheless because the rights start at birth, the protection of foetus cannot violate the right of the mother to self-determination. In

⁵ In addition to the examples presented in this section, the provision of multidisciplinary comprehensive care was also reported by Belgium, Luxembourg and the United Kingdom.

both countries there have recently been proposals to change this. In the Netherlands, coercive treatment in the form of a prenatal supervision order is legally possible once a pregnancy has reached 24 weeks. It is also possible to enforce psychiatric hospital admission for pregnant drug users, but this is seldom applied since this particular law was designed to address mental health issues. However, one of the key legal issues facing this topic is the inconsistency between certain laws and/or perceptions of them. For instance, protecting the well-being of the child may conflict with the right of a parent to raise children. While a mother may have the right to protection or assistance, and the examples mentioned above show how she may be encouraged to take it, she may also fear applying for it if there is a risk that her child would be taken away, and may even hide or deny her pregnancy because of this; this concern was reported by Germany, Hungary, Netherlands and Sweden.

While various countries establish obligations to report matters that concern child welfare, the extension of this obligation to unborn children remains unclear. Sweden reported that the obligation did not apply to unborn children, whereas in Finland, since March 2010, an anticipatory child welfare notification must be submitted when there is reasonable cause to suspect that an unborn child will need child welfare support measures immediately after birth. In Denmark, concerns about the welfare of unborn children must also be reported, and the obligation to report child abuse applies to all citizens regardless of their relationship to the child. In the United Kingdom (England and Wales), there are no mandatory reporting obligations, but professionals and local authorities have a duty to report if an unborn baby or a child is at risk of significant harm. In most countries, obligations to report (or act on) suspicions of a child 'in trouble' are placed mainly on professionals, for example members of the social service system (Slovenia), members of the child risk warning system (Hungary), and those who work with children (Sweden). Sweden also reported that members of the Prisons and Probation Service are obliged to report if they suspect that a child is being mistreated. In Germany, such an obligation has been noted to clash with physicians' and social workers' confidentiality obligations, though a new law - The 'Bundeskinderschutzgesetz', which came into effect on 1 January 2012 - aims to lay down a standard to address this. In Poland, if the behaviour of the drug-dependent parent results in harm to the child's health, the child has a right to compensation under the Civil Code, even if the actions occurred during the mother's pregnancy.

Drug using mothers and child care

No precise information is available on how many drug users live with children in Europe. The only data that are available concern drug users entering treatment. This population, however, is only a partial representation of all drug users who live with children, and not all countries in Europe collect this information. The latest available data on those entering treatment for drug use problems in 26 European countries show that about one in ten drug use clients (ranging between 3% and 17%) entering treatment in 2010 lived with children (alone or with a partner, see Figure 2). Overall, 5% of all treatment entrants (or 40% of those who reported living with children) were single parents; on average, – women were four times more likely to be single parents than men (OR=4.1, 95% C.I. 4.0 – 4.3).

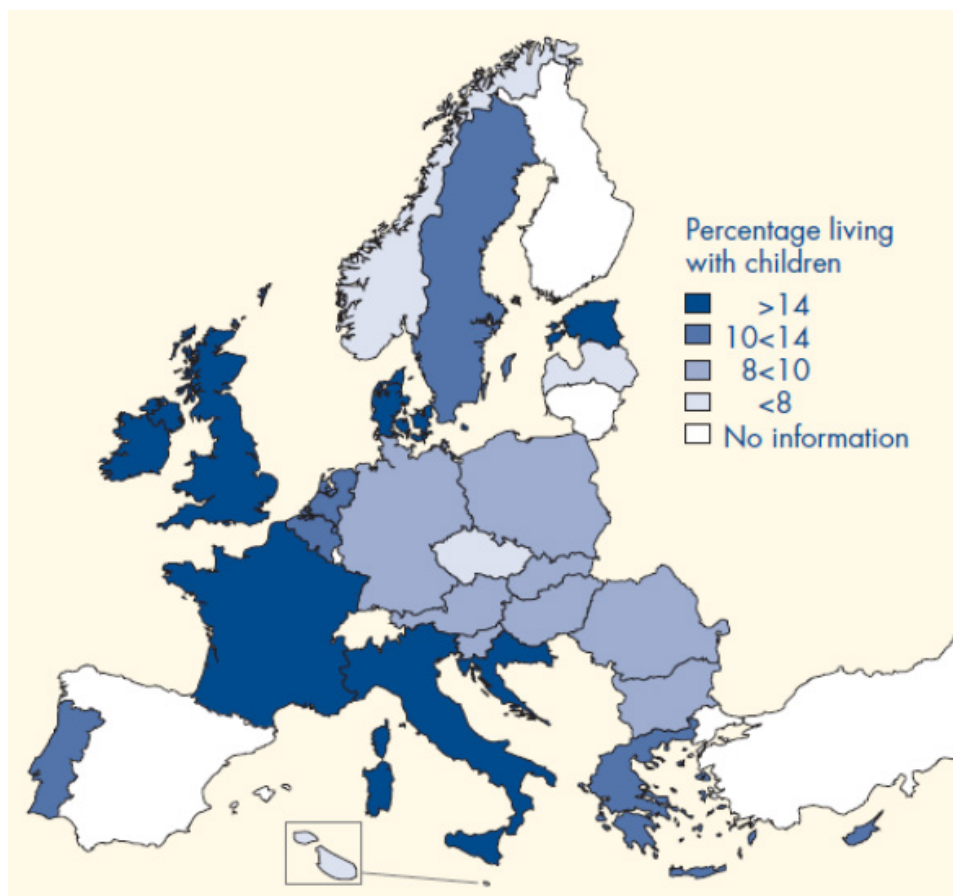


Figure 1: Percentage of all reported clients entering treatment living with children

NB: Data are for 2010 or most recent year available. Data for Poland refer to data from a pilot study; data for the United Kingdom come from their 2011 National report and refer only to England. For more information, see Table TDI-14 in the 2012 statistical bulletin.

Sources: Reitox national focal points.

The role of the family in treating drug addiction

Evidence shows that involving family members in treatment for relatives affected by drug addiction is important for at least two reasons: to alleviate the symptoms of stress and their consequences on family members, and to improve the effectiveness of treatment (Orford et al., 2010). Copello and colleagues (2005) identified three main types of family-based interventions, and presented evidence to support the effectiveness of all three types: a) interventions in which the family encourages the substance user to enter into treatment; b) interventions which involve the family in the treatment itself, and c) interventions aimed at supporting the family members. Other reviews have shown that family-oriented interventions also decrease behaviours and situations that facilitate substance use, by modifying the emotional environment linked to substance use. A review study in Germany that assessed

services aimed at drug-using parents identified systematic family-oriented approach as an important conceptual element in work with families with addiction problems. Group services (support groups, individual counselling, case counselling, weekend seminars, crisis intervention and parent training courses), public-relations work (awareness of services), administration (planning of resources), and supporting services (child-care while parents take part in activities or family seminars) are also key elements that contribute to the success of the programmes. Initiating contact with help agencies is often difficult for drug-using parents: feelings of embarrassment and shame, and fear of losing their children were identified as major barriers to seeking care. Outreach and referral by other - often non-drug related services - may help parents overcome these barriers.

Integration of children in their biological families

Many drug-using parents, and mothers in particular, shy away from seeking treatment or care, because they fear that their children may be taken away from them. While at times these fears may be well-founded, in the majority of cases, authorities support drug-using parents in their efforts to seek care and treatment in order that children can stay with their biological parents in an improved, healthier environment. However, even when children are taken from their drug-using parents, they are often placed in families next of kin. For example, the wide range of social services provided by the Bulgarian foundation 'For Our Children' includes services promoting the reintegration of babies and children into their biological families, and there is an emphasis on extended families when placement in foster families or care is necessary. One of the founding principles of the Lichtblick project in Frankfurt, Germany is that it is in the best interest of the children to avoid being removed from the custody of their biological parents. The comprehensive services provided by the project aim to empower drug-using parents to create a healthy physical and mental environment for their children.

In January 2008, a pilot family drug and alcohol court (FDAC) was set up in London to address the specific needs of drug-using parents and thus improve outcomes for their children (Harwin et al., 2011). It was the first court of its kind in England and Wales, and consisted of a rehabilitation programme for drug-using parents whose children are subject to care proceedings, and was led by a judge. In the final evaluation report, it was shown that 39% of children in areas that were served by the FDAC stayed with the family, in comparison to 21% of children in families who were subject to normal care proceedings. There was also a positive difference reported in the proportion of mothers who had stopped substance misuse (48% compared to 39%). A greater reduction in substance use was also reported among fathers in the evaluation (39% of those in the FDAC group compared to one of the 19 fathers in the other group).

The Health Service Executive (HSE) in Ireland has developed a pilot project with a family-oriented approach that is expected to reduce the number of children who need to leave their families to be cared for in alternative forms of care. In addition, the HSE provides a full range of support services to both parents and children, including therapeutic work, parent education programmes, home-based parent and family support programmes, child development and education interventions, youth work,

and community development. An evaluation of the Families First project in north-east England shows that parents at risk of losing their children can successfully change their lives such that the children can remain safely in the family home. The availability of kinship care, usually provided by grandparents, was an important factor in preventing children from being taken into care (Templeton, 2011).

Family-based residential treatment programmes

Inpatient residential treatment programmes that specifically cater to the needs of families exist in some Member States. For example, the therapeutic community of Sananim in the city of Karlov (Czech Republic) has provided treatment to altogether 115 drug dependent mothers and their 117 children since 2001. The Belgian organisation Trepoline developed the Kangaroo project with the objective of supporting women in their role as mothers. During the daytime, while mothers in this therapeutic programme are engaged in activities (e.g. therapeutic community and social reintegration), their children attend nursery school, kindergarten, or school classes, depending on their ages. The inpatient treatment clinic De Lage Kamp in the Netherlands has been serving addicted parents and their children (up to age 12) for more than 15 years. Treatment is offered to up to nine families at a time for the duration of 12 months on average, with detoxification during the first four weeks. Parents participate in group sessions and receive individual counselling, and children are in day care engaged in educational activities and games. A high-threshold programme in Slovenia called Projekt Človek Society houses three families (mothers or fathers and their children) at a time. This inpatient social rehabilitation and addiction treatment programme teaches parents skills related to parenting and improving the relationship with their children. A nationwide network of inpatient facilities in Finland (the Federation of Mother and Child Homes and Shelters) has been offering treatment and care to drug-using mothers (and, to a lesser extent, fathers) and their children since the late 1990s. Several family inpatient institutions exist in Norway as well: a national study from 2005 showed that 93% of the children were under the age of three years, and 25% of them were born while the mother was already staying at the institution.

The Coolmine Therapeutic Community in Ireland is the only residential service in the country where children of primary school age can live on-site with their mother, allowing mothers to receive the support they need while their children's personal development is strengthened through specialist counselling and child welfare initiatives. The Federation of Mother and Child Homes and Shelters in Finland runs a national specialised treatment system known as Pidä kiinni (Hold tight), consisting of seven mother and child homes around the country. To date, the Pidä kiinni homes and service units have rehabilitated about 1,500 families. The service reaches some 250 families annually, of which about 100 are referred to mother and child shelters and about 150 to outpatient services. In the Lithuanian public institution TC–Laisva valia, up to 10 substance-using women may get long-term psychological care and social rehabilitation services together with their little children. The 'Eltern-Kind-Haus' ('parent-child house') in Boeddiger Berg, Germany, is a special service where drug-using parents live together with their children and receive advice and help regarding child-raising questions and support in organising everyday family life.

Provision of or referral to care services

Parents with drug problems and their children need on-going care. This includes regular follow-ups by case managers of prevention programme participants, with the aim of providing on-going counselling to prevent drug use and to encourage a healthy life style. Some may require clients to return to the programme that they participated in, while others provide home visits. Specific help offered to clients may include crisis intervention, legal help with issues related to drug use, and child-care while they participate in programme activities. Obviously, not all programmes may be comprehensive enough to offer all services. Therefore, they often provide referrals to other services or encourage service utilisation.

The Kiddo Project in Belgium helps parents become aware of how their current or past drug problems may affect their children, it informs them about other services available, and it encourages them to make use of those services. In addition to referring mothers to facilities in the area of child and youth welfare services, the 'Liliput – Mutter + Kind' service in Nürnberg, Germany offers individual counselling to mothers and children, child-care, and leisure time activities. In Kassel, Germany, KIDS reaches out to expecting drug users and mothers with drug problems and connects them with social and health services. Päiväperho (Butterfly) in Finland links substance-using pregnant women and mothers of small children with child welfare services, substance use services, maternity clinics and family counselling clinics, in addition to providing low-threshold services.

Since 2000, a crisis intervention service called Option 2 has been running in Cardiff and the Vale of Glamorgan, Wales. Staff work intensively with two or three families for up to 30 hours a week over a four-week period, with follow-up visits at one, six, and twelve months post intervention. Booster sessions are available to respond to a crisis or to help parents reinforce their coping skills. Parents are asked to develop goals to reduce risks to their children and to identify behavioural changes that will prevent their children from being taken into care by social services. Examples of goals include: drug or alcohol abstinence; improved family relations; developing improved routines for children; dealing with domestic violence; and managing children's behaviour. Several similar interventions which target families with substance use problems using the Option 2 model have been developed across the United Kingdom, but provision is not provided on a national basis.

A multi-disciplinary social work team, including community care and probation professionals, is available at the Drug Treatment Centre Board in Dublin, Ireland, focusing on family support (including child welfare), advocacy, group work, writing reports, and attending inter-agency meetings. A children's playroom provides stimulation and a safe and supportive child-centred setting for children aged between 1 and 14 years, who accompany their parents or guardians to the clinic. They also offer advice and support to parents who may have child-care concerns. The Ballyfermot Advance Project in Ireland subsidises child-care costs in order to facilitate treatment access to drug-using parents.

Social work at police stations is an important element of responses in Finland. It involves responding to situations that emerge in the course of police work involving children, young offenders, family and domestic violence, mental health patients, drug users, and other people undergoing acute crises.

Psychosocial support

Several activities provide psychosocial support for recovering drug-using parents. Psychotherapy, psychosocial care, and support groups with activities to learn healthy expression of emotions are aimed at minimising the complications related to drug use. Several programmes offer services that facilitate social reintegration and rehabilitation.

The Welsh programme Integrated Family Support Services is a multi-agency service which provides targeted support to families where there are concerns regarding child welfare and parental substance misuse (drugs, alcohol or both). It is a family-centred approach to services that offers early intervention in addition to crisis management. It provides intensive support to improve parenting capacity as well as social service intervention and aims to help bridge the gaps between child and adult services by protecting vulnerable children, while at the same time helping parents to develop new skills. Four 'pioneer' areas in Wales adopted the scheme in late 2010, and it is reported that some early successes in preventing children being taken into care have been observed. These areas were to be evaluated in 2011, and following this it is expected that the programme will be applied nationally. The evaluation, published in May 2013, suggest that generally, broadly positive trajectories are still being achieved by the majority of the participating families (albeit based on relatively small numbers)⁶.

An array of services in Germany provides psychosocial support to drug-using parents and their children. 'Regenbogen', an inpatient aftercare programme in Germany provides abstinence-based support, counselling, and assistance to parents with substance use problems. The HiKiDra project in Kiel offers comprehensive social counselling for parents, and support groups not only for mothers, but also for pregnant women, children and adolescents. The 'Bella Donna' drug counselling office has been offering services to women and girls in Essen since 1992. Their training programme MUT! helps mothers who use drugs or are in substitution treatment, and their children, by providing support, suggestions, and practical help in the everyday chores of raising children. Child-care is available while mothers attend group meetings.

Empowerment and skills building

Parents who are seeking to recover from drug addiction benefit substantially from acquiring and strengthening skills that enable them to forge a strong family. Building parenting skills - such as setting limits for their children, planning and organising the household, planning the children's education - is one main goal of therapeutic programmes. These include being aware of the parent's addiction, learning how to deal with real-life family situations, and acquiring practical everyday skills. A key aspect is building family coherence by planning family leisure time and fostering the parent-child relationship. Skills-building activities related to

⁶ Evaluation of the Integrated Family Support Service (IFSS) . Accessed June 2013 at: <http://wales.gov.uk/about/aboutresearch/social/latestresearch/integratedfamily/?lang=en>

interpersonal skills, communication, coping, problem solving, and decision-making are also often part of therapeutic work for parents with drug problems.

The Ana Liffey Drug Project in Ireland aims to promote and support high quality parenting and to enhance the quality of life for children whose parents use drugs. SAOL is a community-based educational and rehabilitation day programme for women in treatment for drug addiction. It provides a full-time child-care facility and early education programme for their children called the SAOL Beag (Little SAOL) Children's Centre. Using an individualised curriculum and approach to work with the children, the programme seeks to identify each child's interests, strengths, and learning goals and to plan activities and learning experiences for the child. An integral part of this service is to work in partnership with the parents. Another key element is the relationship the children have with the adults who work with them: the staff are qualified and experienced in dealing with children and aim to form strong, caring relationships with the children.

A special programme in Denmark called 'Dag og Døgncenteret' (the Day Care and Inpatient Centre) is an inpatient programme that places the mother (or parents) and the child together in a foster family under special terms and conditions. In this system, the parents are not allowed to take the child with them if they unexpectedly leave the foster family or experience recurrence of their drug use. In Denmark, other inpatient institutions exist that do not specifically target drug-using parents with children, but are aimed to help families with any psychosocial problem or a risk of neglect. The '1-2-3 Lass!' (1-2-3 Go) project in Luxembourg targets pregnant women and mothers with children under two years of age. It began as a pilot project in 2007 as a collaboration between the 'service parentalité' and the National Drug Addiction Prevention Centre, with the aim to strengthen and improve the parenting skills of participants.

The Polish government sponsored a prevention programme in 2010 entitled 'New Beginning' targeting drug-dependent mothers and pregnant women. The programme featured support groups and parenting classes. The aim was to improve the participants' knowledge and skills regarding conflict solving, coping, positive thinking, leisure time activities; to manage the child's development; to improve the parent-child relationship; and to promote parenting skills. Apart from psychological and health matters, some classes were devoted to legal issues.

Policy and legal frameworks concerning drug-using parents and their children

Legal framework at international level

The main international laws governing illicit drugs are the UN Conventions of 1961, 1971 and 1988. The first two make no mention of young people. The preamble of the 1988 Convention Against Illicit Traffic in Drugs expresses deep concern for the fact that children are used as a consumer market for drug distribution, and in Article 3 (5) it mentions the victimisation of minors and the distribution of drugs near schoolchildren, for example, as aggravating supply offences. Nevertheless, there is no explicit mention of children of drug users.

However, the following year the UN Convention on the Rights of the Child was signed in November 1989, where Article 33, states:

“States Parties shall take all appropriate measures, including legislative, administrative, social and educational measures, to protect children from the illicit use of narcotic drugs and psychotropic substances as defined in the relevant international treaties, and to prevent the use of children in the illicit production and trafficking of such substances”.

The preamble states that the child ‘needs special safeguards and care, including appropriate legal protection before as well as after birth’. As there is no mention of from whose illicit drug use the child should be protected, this has been interpreted as meaning that states should protect children from drug use within the family (Barrett and Veerman, 2012). It may be read together with Article 24, which gives the right to antenatal and postnatal care, and therefore may include substitution treatment for opioid-dependents, and may also be considered as supporting parenting skills.

Legal framework at European level

At the European level, there is again no specific law applying to the children of drug users. Nevertheless, the issue of removing children from families may be governed by the ‘right to family life’. Article 8 of the European Convention on Human Rights states:

- Everyone has the right to respect for his private and family life, his home and his correspondence.
- There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.

States are allowed some discretion – known as the margin of appreciation – in their interpretation of this law. This will differ according to context but is particularly wide in the area of child protection (Kilkelly, 2003). Nevertheless, it has been established by the court that a family life will always include the relationship between a mother and child, even when there is no marriage, no cohabitation, or only the potential for family life even if it has not yet been established (for example, a child was removed from a parent at birth) (Kilkelly, 2003). As the well-being of the child is paramount, returning the child to his or her parents should always be considered; without measures to prepare for the child’s return to his or her parents, the implementation of a custody order may be damaging to the child (Conrod et al., 2010). This was reported as a basic principle in Belgium, Latvia, Slovenia, and Slovakia. In the Czech Republic, one of the objectives of the national action plan on caring for vulnerable children is to reduce the number of children in institutional care, while the Irish Child Care Act of, 1991 aims to avoid the use of care. If disagreements between parents or authorities occur, the child has a right to be informed of proceedings and to express its opinion, according to the European Convention on the Exercise of Children’s Rights 1996.

Guidelines and recommendations

Substitution treatment combined with social work and addiction counselling is the standard practice for treatment of heroin use during pregnancy (Mactier, 2011). Methadone is the most commonly available and prescribed opioid substitution medication in Europe, although in countries where it is available, buprenorphine and slow-release oral morphine may also be prescribed. In a number of countries, methadone is reported as the primary substitution medication (e.g. Germany, Ireland, Latvia, Netherlands, United Kingdom), whereas in some others buprenorphine is the first choice medication (e.g. Estonia, Norway). In Germany, treatment with diamorphine is also available in addition to the substitution medications commonly prescribed for opioid-using pregnant women, though it is only for high-risk individuals, under strictly controlled circumstances.

Recommendations follow international standards, and in some countries pregnant women receive priority in treatment entry. Treatment protocols for opioid-using pregnant women, however, may vary by country. In many countries, substitution treatment is encouraged at any time during the pregnancy, while detoxification is strongly discouraged; especially during the first trimester, to prevent birth defects and miscarriage, and the third trimester to prevent premature birth.

Eight countries reported guidelines for services for pregnant drug users and their newborn, and one country (Portugal) reported that guidelines are being developed. The majority of these guidelines address substitution treatment. In Germany, Ireland, Romania and the United Kingdom, guidance is provided within the general framework for substitution treatment, with pregnant women as a specific subgroup, while Hungary, Norway and Sweden have developed special guidelines.

Three countries (Ireland, Netherlands, Romania) reported quality assurance documents addressing neonatal abstinence syndrome. In the Netherlands, two specific protocols are available concerning diagnostics, medical treatment, support and multidisciplinary treatment and care of both child and parents. In Ireland, the Irish Prison Service's healthcare standards provide guidance on medical treatment, breastfeeding, and psychosocial support. Finally, in Romania, within the general framework of clinical guidelines for opioid substitution treatment, recommendations are provided on treatment choices and on breastfeeding for infants with neonatal abstinence syndrome.

Conclusions

In Europe a lower number of women than men consume drugs, with wide variations between specific drugs. Nevertheless the women affected by drug use problems experience a higher excess risk of mortality and related problems. Furthermore, as the problems associated with drug use are not limited to the individual, but they affect the family as a whole, women are those more intensively involved in the care of a drug user relative.

Female drug users may have children and when this is the case, they are more likely than their male counterparts to live alone with their children. Drug users who have children constitute a special subgroup because in addition to their concerns related to drug use in general, they also have additional needs, such as child-care while they are in treatment and assistance with issues related to parenting. Furthermore, the legal protection and the right of the child to grow up in his or her own family may be threatened with the possibility that children can be removed from the family if child protection services consider their environment dangerous to their well-being. On the other hand, however, living with drug using parents might not always guarantee adequate living conditions and safety for the children.

Legislations in Europe strive to keep the family united rather than separating children from their families. Legislation specifically applying to pregnant drug users or to unborn children facilitates eligibility for treatment in many countries.

In addition to legislation, a variety of interventions - many of them evidence-based - have been developed in European countries to help pregnant drug users, addicted parents, and their children. For example, the majority of treatment interventions for pregnant women follow the evidence of providing substitution treatment to those dependent on opioids. Furthermore, to ensure that pregnant drug users receive proper and timely care, some countries organise outreach services and referral systems, offer multidisciplinary comprehensive programmes during and after pregnancy and therapeutic communities where recovering parents and their children can remain together. Interventions responding to the needs of drug-using parents and their children include measures enabling the children to stay with their biological families, family-based interventions, provision of or referral to care services, psychosocial support, empowerment, and skills building. Internet-based prevention programmes are also available, especially for adolescents and young adults with drug-using parents, a group that continues to lack appropriate attention.

Data on the prevalence of drug use among pregnant women is not available for most European countries, so programmes aimed to help pregnant drug users may not be aware of the size of the target group. Likewise, the extent to which families affected by drug use have been reached by existing programmes remains unknown. National reports, however, indicate that coverage may be small or vary substantially by country, and that the viability of some of these programmes may be questionable. There are several factors that may contribute to this. First, there is a shortage of appropriate and available interventions at organisations that cater to problem drug users and their families, often combined with a lack of policy support. Second, reaching the target group may be difficult. Treatment services that exist may have several impediments that prevent them from increasing their coverage. For example, a potentially general issue relates to public funding: as drug treatment services are often dependent on funding from local or government authorities, budget cuts resulting from the recent financial crisis may have negatively affected, among other things, the functioning of interventions and services targeting drug users with children. Diminished funding may have led to a loss of treatment places, an insufficiency of medications, a

decrease in the variety and diversity of services, and the eventual closure of such services - just to name a few. As recovering from substance use and problems related to it may be a lifelong process, securing long-term government or other funding is an essential part of prevention efforts.

Regular monitoring and evaluation, and particularly, identifying the size of the target population, will facilitate a better understanding of the issues, needs, and potential solutions related to drug-using pregnant women, and female drug users in general.

Removing the barriers to seeking treatment, such as the lack of child-care and fear of legal consequences, will allow women who are directly using drugs or who are relatives of a drug user to seek help. Whether a woman is a drug user or only the relative of one, addressing her needs is central to appropriate treatment. Women who use drugs tremendously suffer physically and psychologically. Female relatives of drug users can suffer violence and enormous emotional distress. In any case women ought to be empowered to help themselves and their relatives to seek help and to achieve good outcomes.

References

- Bargagli, A. M., Hickman, M., Davoli, M., Perucci, C. A., Schifano, P. et al.** (2006), 'Drug-related mortality and its impact on adult mortality in eight European countries', *Eur J Public Health* 16(2), pp. 198-202 (available at: PM:16157612).
- Barrett, D. and Veerman, P. E.** (2012), A commentary on the United Nations convention on the rights of the child, Article 33: Protection from narcotic drugs and psychotropic substances, Martinus Nijhoff, Leiden.
- Conrod, P. J., Castellanos-Ryan, N. and Strang, J.** (2010), 'Brief, personality-targeted coping skills interventions and survival as a non-drug user over a 2-year period during adolescence', *ARCH. GEN. PSYCHIATRY* 67(1), pp. 85-93 (available at: PM:20048226).
- El Marroun, H., Tiemeier, H., Steegers, E. A., Jaddoe, V. W., Hofman, A. et al.** (2009), 'Intrauterine cannabis exposure affects fetal growth trajectories: the Generation R Study', *J. Am. Acad. Child Adolesc. Psychiatry* 48(12), pp. 1173-81.
- El Marroun, H., Tiemeier, H., Steegers, E. A., Roos-Hesselink, J. W., Jaddoe, V. W. et al.** (2010), 'A prospective study on intrauterine cannabis exposure and fetal blood flow', *Early Hum. Dev.* 86(4), pp. 231-6 (available at: PM:20451334).
- El Marroun, H., Hudziak, J. J., Tiemeier, H., Creemers, H., Steegers, E. A. et al.** (2011), 'Intrauterine cannabis exposure leads to more aggressive behavior and attention problems in 18-month-old girls', *Drug Alcohol Depend.* 118(2-3), pp. 470-4 (available at: PM:21470799).
- EMCDDA** (2006), 'Gender perspective on drug use and responding to drug problems', Publications Office of the European Union, Luxembourg.
- EMCDDA** (2012a), 'Pregnancy, childcare and the family: key issues for Europe's response to drugs', Publications Office of the European Union, Luxembourg.
- EMCDDA** (2012b), '2012 Annual report on the state of the drugs problem in Europe', Publications Office of the European Union, Luxembourg.
- Gyarmathy, V. A., Giraudon, I., Hedrich, D., Montanari, L., Guarita, B. and Wiessing, L.** (2009), 'Drug use and pregnancy - challenges for public health', *Euro. Surveill* 14(9), pp. 33-6 (available at: PM:19317968).
- Harwin, J., Ryan, M., Tunnard, J., Alrouh, B., Matias, C. et al.** (2011), 'The family drug & alcohol court (FDAC) evaluation project'.
- Jones, H. E., Kaltbach, K., Heil, S. H., Stine, S. M., Coyle, M. G. et al.** (2009), 'RCT Comparing Methadone and Buprenorphine in Pregnant Women', (available at: <http://clinicaltrials.gov/ct2/show/NCT00271219>).
- Kilkelly, U.** (2003), The right to respect for private and family life: A guide to the implementation of Article 8 of the European Convention on Human Rights, Council of Europe, Strasbourg.
- Meinert, C. L. and Gilpin, A. K.** (2001), 'Estimation of gender bias in clinical trials', *Stat. Med.* 20(8), pp. 1153-64 (available at: PM:11304732).

Minozzi, S., Amato, L., Vecchi, S. and Davoli, M. (2008), 'Maintenance agonist treatments for opiate dependent pregnant women', *Cochrane Database Syst. Rev.* (2), p. CD006318 (available at: PM:18425946).

Templeton, L. (2011), 'Dilemmas facing grandparents with grandchildren affected by parental substance misuse', *Drugs: education, prevention and policy* (0), pp. 1-8.

Thomas, S. L., Newell, M. L., Peckham, C. S., Ades, A. E. and Hall, A. J. (1998), 'A review of hepatitis C virus (HCV) vertical transmission: risks of transmission to infants born to mothers with and without HCV viraemia or human immunodeficiency virus infection', *Int. J. Epidemiol.* 27(1), pp. 108-17 (available at: PM:9563703).

WHO (2009), 'Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence', World Health Organisation, Geneva.

Treatment of alcohol use disorders (AUDs): a sex-gender approach

Flavia Franconi (1), Gian Luigi Gessa (2), Roberta Agabio (3)

(1) Department of Biomedical Sciences, University of Sassari, Sassari, Italy

(2) Department of Biomedical Sciences, Section of Neuroscience and Clinical Pharmacology; Center of Excellence on Neurobiology of Dependence, University of Cagliari, Italy; Neuroscience Institute, National Research Council of Italy, Section of Cagliari, Italy

(3) Department of Biomedical Sciences, Section of Neuroscience and Clinical Pharmacology; Center of Excellence on Neurobiology of Dependence, University of Cagliari, Italy

Introduction

Alcohol use disorders (AUDs) involve serious health problems with enormous social and individual costs. As in many other medical fields, the majority of investigations of AUDs have been focused on male animals and men, with these findings mainly obtained in males being translated in women (Franconi et al., 2007; Legato et al., 2009). Nevertheless, several differences have been identified between men and women regarding alcohol consumption and AUDs, from epidemiology, pharmacokinetics, and patterns of drinking to the amount of alcohol and medical complications (Ceylan-Isik 2010; Cyr, McGarry, 2002; Epstein et al., 2007; Heading, 2008; Hensing, Spak, 2009; Koechl et al., 2012; Schuckit et al., 1998; Schulte et al., 2009; Weinberg et al., 2009; and literature therein). For instance, the consumption of alcohol is more prevalent among men than women (Hasin et al., 2007), but women are more vulnerable to alcohol-related morbidity and mortality (Shipton et al., 2011). In addition, women develop specific effects to alcohol such as alterations of the menstrual cycle (Emanuele et al., 2002), an increased risk of breast cancer (Vachon et al., 2001; Nelson et al., 2002; Liu et al., 2013) and, during pregnancy, the risk of foetal alcohol syndrome (Sokol et al., 2003). Finally, evidence suggests that women with AUDs are more likely than men to meet numerous barriers to access and entry into treatment for AUDs (Greenfield et al., 2010a; Tuchman, 2010).

Biological (e.g. acetylator phenotypes) and environmental factors (e.g. care provider-patient relationship) influence the response to treatment. Women and men differ very much in biological (sex) and psychosocial-cultural (gender) factors that they may be considered as two different categories of subjects in the response to medical treatment (Legato, 2009; Campesi et al., 2013). Hippocrates had already observed a gender difference in the susceptibility to developing certain diseases and correlated it to the menstrual cycle writing that “A woman does not take the gout unless her menses has stopped” (Enomoto and Endou, 2005). In

recent years, gender differences have been described in the context of several drug abuse treatments (Anderson, 2005; Anderson, Walton, 2005; Campesi et al., 2013; El-Maarri et al., 2007; Franconi et al., 2007, 2011a, 2011b; Gandhi et al., 2004; Kaminsky et al., 2006; Legato, 2009; Marino et al., 2011; Regitz-Zagrosek, 2012; Soldin and Mattison, 2009; Zhang et al., 2011a) and it is highly probable that women and men also differ with regard to specific treatments for AUDs. However, relatively few studies have examined gender differences in this field. Reviewing the literature, we mainly focused on women because they are less studied and thus receive less evidence-based treatment, underlining evidence of the effectiveness of treatment for AUDs in women, in women during pregnancy and possible sex-gender differences in response to it.

Pharmacokinetic of alcohol

After oral administration, alcohol is absorbed rapidly into the bloodstream from the gastrointestinal system and is distributed into total-body water (Schuckit, 2011). Alcohol is submitted to a first-pass metabolism by the gastric and liver enzyme alcohol dehydrogenase, first to acetaldehyde, and then to acetic acid. A constant amount of alcohol is metabolised per unit of time (approximately 8 g per hour, in a 70-kg adult). Small amounts of alcohol are excreted in urine, sweat, and breath, but metabolism to acetate accounts for 90-98% of ingested alcohol, mostly via hepatic metabolism. A hepatic cytochrome P450 (CYP), CYP2E1, also can contribute to this, especially at higher concentrations and under conditions such as AUDs, where its activity may be induced.

Sex-Gender differences

Women achieve higher blood alcohol levels than men after drinking equivalent amounts of alcohol. In general, women have less body water, a higher proportion of body fat and a smaller volume of distribution than men of similar body weight. In addition, women have a smaller first-pass metabolism of alcohol than men (Baraona et al., 2001), having lower levels of the gastric alcohol metabolising enzyme alcohol dehydrogenase, at least in young age (Parlesak et al., 2002). It is not clear whether alcohol absorption also changes during menstrual cycle (Pizon et al., 2007).

Complications of AUDs

Excessive alcohol consumption is causally related to more than 60 different medical conditions, in most cases detrimentally (Room et al., 2005). For most of these conditions, the risk of the disease is related to the blood alcohol levels achieved.

Sex-Gender differences

Despite lower levels of consumption, women experience a more rapid progression to alcohol-related medical conditions than men (McGarry, Cyr, 2005). Compared to men, women develop alcohol-induced liver disease over a shorter

period of time and after consuming less alcohol (Johnson et al., 2005; Eagon, 2010). In addition, women are more likely than men to develop alcoholic hepatitis and to die from cirrhosis (Rehm et al., 2010). There is also evidence for greater effects on skeletal and cardiac muscle, hypertension, accelerated brain atrophy, and an earlier onset of cognitive deficits in women affected by AUDs compared to men (McGarry, Cyr, 2005; Nanchahal et al., 2000). Notably, women with AUDs have a higher risk of developing drug interactions and physical injuries from falls and accidents (Epstein et al., 2007). In particular, it has been calculated that AUDs increase mortality risk by about 160% and 40% in women and in men, respectively (Wilsnack et al., 2009). A recent study showed a decrease in mortality risk in a Scottish population, with the exception of young women, where alcohol-related deaths were increased (Shipton et al., 2013).

Neurobiology of AUDs

Alcohol affects almost all brain neurotransmitter systems in different ways depending on the dose and frequency of consumption. For example, when acutely assumed, alcohol induces sedative effects, mainly through stimulation of the inhibitory gamma-aminobutyric acid GABAA receptors and the inhibition of the excitatory N-methyl-D-aspartate (NMDA) glutamate receptors. When it is chronically consumed, the intensity of the perceived effects decreases because of the appearance of tolerance. Tolerance is due to the development of opposite, maladaptive changes in most neurotransmitter systems and requires increased doses of alcohol to achieve effects of the same intensity. After a prolonged heavy use of alcohol, if alcohol use is reduced or interrupted, a withdrawal syndrome occurs (APA, 2013).

Alcohol, as well as all other drugs that are taken in excess, have in common the direct activation of the mesolimbic dopaminergic system (the “reward” system), the neuronal system that is believed to mediate the reinforcing, motivational, stimulating, and rewarding properties of these substances (Koob, Volkow, 2010). Briefly, alcohol increases extracellular fluid dopamine levels in the ventral striatum, specifically the nucleus accumbens region. The impact of alcohol on dopaminergic pathways is mediated by its interaction with other neurotransmitter systems such as the opioid, GABAergic, serotonergic, glutamatergic, purinergic, cholinergic and cannabinoid systems (Gianoulakis, 2009; Heinz et al., 2009; Leishman et al., 2013; Nam et al., 2012; Rahman et al., 2012). As an example, dopaminergic neurons of the “reward” system receive GABAergic inputs. The activation of metabotropic GABAB receptors has an inhibitory effect on dopaminergic tone that is thought to reduce the reinforcing effects of substances of abuse (Kumar et al., 2013).

There is also a complex relationship between alcohol consumption and brain stress systems (Belujon, Grace, 2011; Roberto et al., 2012; Uhart, Wand, 2009). Acute alcohol consumption induces anti-anxiety effects, while chronic alcohol consumption can profoundly disturb the response to stress, changing the activity of several factors related to stress such as corticotropin-releasing factor (CRF) and corticosteroids released by the adrenal glands, increasing the susceptibility to relapse.

Sex-Gender differences

Increasing evidence from human and animal research indicates the presence of sex-gender differences in many aspects of the neurobiology of substance use disorders (Carroll, Anker, 2010; Devaud et al., 2004; Greenfield et al., 2010b; Leishman et al., 2013; Wiren et al., 2006). Some of these differences appear to be genetically sustained and influenced by ovarian hormones and their metabolites, as well as by the hypothalamic pituitary adrenal (HPA) axis, dopamine, and GABA (Carroll, Anker, 2010). Namely, the relationship between neurosteroids (i.e. steroid hormones that also act in the CNS) and alcohol has been largely investigated. Acute alcohol increases neurosteroid production, and the increase in neurosteroidogenesis after alcohol consumption correlates with subjective reports of “liking” or “wanting to consume more” in humans (Helms et al., 2012). Although little is known about the relationship between neurosteroids and alcohol interactions at GABAA receptors, it has been proposed that they have a synergistic effect on increasing inhibition. Saliiently, allopregnanolone (a metabolite of progesterone) is the most potent endogenous modulator of GABAA receptors (Finn et al., 2010). Alcohol consumption increases allopregnanolone brain levels in male rats; similar increases are achieved in female rats at oestrous and during pregnancy (Chisari et al., 2010). Also, the activation of GABAB receptors is different between the sexes and changes in a dynamic manner across the oestrous cycle (Liu, Herbison 2011). These findings suggest that fluctuations in neurosteroids levels could modify the functioning of central GABAA and GABAB receptors and induce sex-gender differences in the sensitivity to alcohol and other substances of abuse. There are also sex-gender differences in the ability of alcohol to enhance dopamine release in the mesolimbic pathway. For example, a PET study has revealed that men show twice as much dopamine release in the ventral striatum compared to women after acute alcohol intake (Boileau et al., 2003). In preclinical models of AUDs, females had a higher alcohol intake than males and this difference suggests a higher sensitivity of females to the reward effects value of alcohol than males (Finn et al., 2010, Colombo et al., 2012). In women of child-bearing age, the luteal phase of the menstrual cycle is associated with a reduced ability of alcohol to activate reward circuitry, which could account for increased alcohol consumption during this phase (Lenz et al., 2012). Sex hormone activity can mediate the acute rewarding effects of alcohol by regulating the HPA axis and endogenous opioid systems, both of which contribute to dopamine release in the nucleus accumbens (Lenz et al., 2012). Globally, these data suggest that not only may women require specific treatment for AUDs, but also that their response to treatment may change across the different phases of their lives, as well as during the oestrous cycle.

Diagnostic criteria of AUDs

According to the Fourth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR), AUDs include two severe mental disorders, alcohol dependence and abuse, both of which are characterised by maladaptive patterns of alcohol consumption, leading to clinically significant impairment, and are associated with devastating consequences (APA, 2000). Even if abuse and dependence have been classified by DSM-IV-TR as independent disorders, they

are often considered a single disorder with different grades of severity. Accordingly, in the last edition of DSM (DSM-5), abuse and dependence have been combined into a single mental disorder, defined as alcohol use disorder AUD (APA, 2013).

Sex-Gender differences

There are no sex-gender differences among the diagnostic criteria of AUDs and AUD (APA, 2000; APA, 2013). The paragraph entitled “Gender-related diagnostic issues” of DSM-5 describes gender-differences in rates of drinking (higher in men than women), alcohol levels achieved after drinking (higher in women than men per drink), and alcohol-related vulnerability to some of the physical consequences associated with alcohol higher in women than men (APA, 2013).

Prevalence of AUDs

AUDs are common disorders, with well-known sex-gender differences (APA, 2013; The ESEMeDMHEDEA 2000 Investigators, 2004; Wittchen et al., 2011). In the United States, a large study found that approximately 8% and 30% of the adult population suffered from current and lifetime AUDs, respectively (Hasin et al., 2007).

Sex-Gender differences

In the 1980s, the prevalence of AUDs was approximately five times more in men than in women (Robins, Regier, 1991); however, over the past three decades, this difference in the United States has narrowed such that AUDs are now only twice as prevalent in men than in women (Hasin et al., 2007), because the number of women affected by AUDs is raising and the disparity between men and women is rapidly diminishing (Epstein et al., 2007). One of the reasons for this change is related to the increase of the subgroup of population comprised by very old people, in which women are prevalent (Culbertson, Ziska, 2008; Koechl et al., 2012; Simoni-Wastila, Yang, 2006). Moreover, male and female adolescents do not exhibit the same disparity in the prevalence of AUDs. For instance, a community-based sample of 3,072 adolescents revealed that rates of AUDs were not statistically different for girls and boys aged 12 to 17 (Schulte et al., 2009).

Comorbidity

Patients affected by AUDs often suffer from other mental disorders, such as other substance use disorders, mood disorders, anxiety disorders, and personality disorders (Hasin et al., 2007). The co-occurrence of these disorders worsens the prognosis of both disorders and requires specific interventions.

Gender differences

The prevalence of specific comorbid disorders differs between men and women: for example, women affected by AUDs are more likely to suffer from mood and anxiety disorders than men, whereas men with AUDs are more likely to suffer

from personality disorders and additional substance use disorders than women (Compton et al., 2000). However, recently, after adjustment for sociodemographic characteristics and additional co-occurring psychiatric diagnosis, most of the prevalence of comorbid disorders did not differ significantly by sex (Goldstein et al., 2012). Only mood disorders were more prevalent among women affected by AUDs than in men (Goldstein et al., 2012).

More than 150 prescription and over-the-counter medications interact negatively with alcohol (National Institute on Alcohol Abuse and Alcoholism, 2003). Thus, sex and gender differences in comorbidity appear to be also relevant for the possible drug interactions with alcohol and among drugs used to treat comorbid disorders and those to treat AUDs. Furthermore, older women prevail over men and the elderly (>65 years) consume more drugs; thus, interactions could be more frequent in older women (Gomberg, 1990).

Treatment of AUDs

The treatment of AUDs is aimed at reducing the severity of intoxication and withdrawal symptoms if needed, and achieving long-term sobriety (or at least a reduction in alcohol consumption), and preventing relapses (Kleber et al., 2007).

Intoxication

The diagnosis of alcohol intoxication requires the occurrence of at least one of the following criteria: slurred speech, incoordination, unsteady gait, nystagmus, impairment in attention or memory, and stupor or coma (APA, 2013). It can be a medical emergency, and a number of people die every year from this disorder. The treatment of acute alcohol intoxication is based on its severity (Schuckit, 2011). Mild intoxications require reassurance and maintenance in a safe and monitored environment, adequate hydration and nutrition, while hospitalisation is recommended for severe acute alcohol intoxication (e.g. comatose patients or those with evidence of respiratory depression that may require intubation and ventilator assistance) (Kleber et al., 2007; Schuckit, 2011). Medical and psychiatric problems should also be investigated to establish whether hospitalisation may be required. In some European countries (including Italy), metadoxine, a pyridoxine-pyrrolidone carboxylate, is approved for the treatment of acute alcohol intoxication (Leggio et al., 2011). Two clinical trials, with a total of 110 intoxicated subjects of both sexes, found that its administration was able to accelerate alcohol elimination (Shpilenia et al., 2002; Diaz Martinez et al., 2002).

Sex-gender differences and pregnancy

The total number of patients treated with metadoxine is insufficient to evaluate its efficacy in the treatment of alcohol intoxication for men (87 subjects) and women (23 subjects), and it also does not permit the evaluation of possible sex-gender differences in response to it. Furthermore, metadoxine is not suitable for patients who are pregnant or breastfeeding (www.unitedpharmacies.com/customer/product.php?productid=1366).

Alcohol withdrawal syndrome

The essential feature of alcohol withdrawal syndrome is the development of symptoms reflecting autonomic hyperactivity and anxiety within several hours to a few days after the cessation of, or reduction in, heavy and prolonged alcohol use (APA, 2013). Its diagnosis requires the occurrence of at least two of the following symptoms and signs: sweating or pulse rate greater than 100 bpm, increased hand tremor, insomnia, nausea or vomiting, transient hallucinations or illusions, psychomotor agitation, anxiety and generalised tonic-clonic seizures. Generally, these symptoms and signs are minor but can develop into a severe, even fatal, condition. It has been suggested that approximately 10% of the subjects with alcohol withdrawal syndrome develop dramatic symptoms such as delirium and generalised tonic-clonic seizures (APA, 2013).

The treatment of alcohol withdrawal syndrome is based on its severity: mild syndromes require generalised support, reassurance, monitoring and thiamine, while severe syndromes necessitate pharmacological treatments to (1) reduce the severity of symptoms, and (2) prevent the incidence of seizures and delirium (Kleber et al., 2007). Because different medications have been used in the treatment of alcohol withdrawal syndrome (such as benzodiazepines, anticonvulsants, alpha-2-adrenergic agonists, beta-adrenergic antagonists, and gamma-hydroxybutyrate (GHB), several studies evaluated their safety and effectiveness in achieving these two aims.

Benzodiazepines (e.g. lorazepam, chlordiazepoxide, and diazepam) are the drugs of choice in the management of alcohol withdrawal syndrome (Amato et al., 2011; Hall, Zador, 1997; Kosten, O'Connor, 2003; Mayo-Smith et al., 1997). A meta-analysis, evaluating the results obtained from 134 clinical trials conducted from 1966 to 1995, found that, among the different pharmacological agents used, benzodiazepines (1) reduced the severity of symptoms of alcohol withdrawal syndromes and (2) prevented the incidence of seizures and delirium (Mayo-Smith et al., 1997). A more recent study, which evaluated 5 reviews and 114 studies including a total of 7,333 participants, also found that benzodiazepines performed better than placebo and other drugs in preventing the occurrence of seizures (Amato et al., 2011). All benzodiazepines are effective in treating alcohol withdrawal syndrome and the choice of a specific one is influenced by patient features (Chang, Steinberg, 2000; Schuckit, 2006). Shorter acting benzodiazepines, such as lorazepam and oxazepam, are indicated in elderly patients, in subjects with hepatic impairment, and postoperative patients, in order to avoid excessive sedation. Longer acting drugs, such as chlordiazepoxide and diazepam, may cause excessive sedation but are useful in the prevention of seizures. Agents with a rapid onset of action, such as lorazepam, alprazolam, and diazepam, generate additional concerns regarding abuse. However, the clinical use of benzodiazepines is limited by potential for abuse, psychomotor sedation, cognitive impairment, and the possibility of pharmacological interaction with alcohol.

Anticonvulsants (e.g. carbamazepine, valproic acid, and phenytoin) were studied as alternatives to benzodiazepines for the treatment of alcohol withdrawal syndromes (Erstad, Cotugno, 1995). A meta-analysis found that they reduced the severity of alcohol withdrawal syndrome but did not prevent complications

(Mayo-Smith et al., 1997). A more recent review article, which evaluated 56 studies including a total of 4,076 participants, concluded that there are limited data to determine the effectiveness of anticonvulsants in the treatment for alcohol withdrawal syndrome (Minozzi et al., 2010).

Alpha-2-adrenergic agonists (e.g. clonidine) and **beta-adrenergic antagonists** (e.g. propranolol and atenolol) may be useful as adjuvant treatments, but are unsuitable for use alone in the treatment of alcohol withdrawal syndromes (Kosten, O'Connor, 2003). As anticonvulsants, a meta-analysis study found that these drugs also reduced the severity of alcohol withdrawal syndrome (e.g. autonomic manifestations) but have not been proven to prevent complications (Mayo-Smith et al., 1997).

Ghb, an endogenous constituent of the mammalian brain, has been approved for the treatment of alcohol withdrawal syndromes in Italy and Austria (Agabio et al., 2010). However, a recent study found that benzodiazepines performed better than placebo and other drugs, including GHB, in preventing the occurrence of seizures, finding insufficient evidence for effectiveness and safety for the use of other drugs anticonvulsants, baclofen, GHB and psychotropic analgesic nitrous oxide (Amato et al., 2011). Another review article evaluated 6 trials, with a total of 286 subjects, and concluded that there are limited data to determine the effectiveness of GHB in the treatment of alcohol withdrawal syndrome (Leone et al., 2010).

Sex-gender differences and pregnancy

It has been reported that males and females differ in the symptoms of alcohol withdrawal (Leishman et al., 2013). A clinical study found that women (62 subjects) developed less severe symptoms of alcohol withdrawal than men (66 subjects); however, the Authors reported that men could have experienced more severe withdrawal than women because they were older and had longer histories of AUDs than women (Deshmukh et al., 2003). Also, female rats are less susceptible to seizures during acute withdrawal than male rats (Wiren et al., 2006). Sex-gender differences in the time course for the development of, and recovery from, alcohol withdrawal syndrome may be due to differences in neurochemical and molecular adaptations related to circulating steroid levels, including sex steroids (Wiren et al., 2006). Because allopregnanolone has shown anticonvulsant effects in some preclinical models, the current hypothesis is that males and females may have different GABAA sensitivity due to the effects of neurosteroids (Leishman et al., 2013).

To date, no randomised clinical trials have been conducted to evaluate the effectiveness of pharmacological treatments of alcohol withdrawal syndrome in women and in pregnancy, or to evaluate possible sex-gender differences in the response to treatment (Heberlein et al., 2012). However, sex-gender differences already observed in some properties of certain drugs may be useful to select the more appropriate agent to treat alcohol withdrawal syndrome in women. Accordingly, these differences will be briefly described.

Benzodiazepines are metabolised extensively by CYPs, particularly by CYP3A4 and 2C19 (Ketter et al., 1995). CYP3A4 and 2C19 (at least in some

populations) are more active in women than in men (Franconi et al., 2007; Tamminga et al., 1999; Inomata et al., 2005); moreover, CYP3A4 activity decreases in the elderly, with a probable higher reduction in men than in women (Schwartz, 2003). Accordingly, gender differences have been described in the clearance of some benzodiazepines and in the severity of certain side effects (Chetty et al., 2012; Verster et al., 2012). These data suggest that the response to benzodiazepines in the treatment of alcohol withdrawal syndrome may also differ between men and women.

Further differences may be found in the response to drugs between women who are taking oral contraceptives and those who are not taking these drugs. Women taking oral contraceptives eliminate valproic acid more rapidly than women who are not taking them (Galimberti et al., 2006). This result suggests that **valproic acid** may be less effective in the treatment of alcohol withdrawal syndrome if women are taking oral contraceptives. **Carbamazepine, phenytoin** and oral contraceptives are mainly metabolised by CYP3A4 and are also inducers of its activity (Crawford et al., 1990; Crawford, 2002). Accordingly, the administration of carbamazepine or phenytoin reduces the effectiveness of oral contraceptives. It is highly probable that carbamazepine and phenytoin may also be less effective in the treatment of alcohol withdrawal syndrome if women are taking oral contraceptives. These data suggest that it is necessary to properly investigate the use of oral contraceptives to “adjust” the dose of drugs to treat alcohol withdrawal syndrome in women.

Some beta-blockers (such as **propranolol** and **metoprolol**) are substrates of another CYP, CYP2D6, and this enzyme is more active in men than in women. This difference is considered to be the basis of gender differences seen in certain drugs metabolised by CYP2D6 (Franconi et al., 2007). For example, peak concentrations of propranolol are 70% higher in women than in men (Fletcher et al., 1994), while concentrations of other beta-blockers (which are not substrates of CYP2D6, such as **atenolol**) do not present sex-gender differences (Franconi et al., 2007). These data suggest that doses of pharmacological treatments may vary greatly between men and women. The choice of drugs should be also made considering the high vulnerability of women to develop alcohol-induced liver disease.

Finally, clinical studies where benzodiazepines and other medications used to treat alcohol withdrawal syndrome (e.g. anticonvulsants) were administered during pregnancy for reasons other than alcohol withdrawal syndrome showed that these drugs were related to the risk of foetal malformations and perinatal problems, suggesting that their use should be avoided during pregnancy (Marinucci et al., 2011).

Treatment to achieve sobriety and prevent relapses or reduce alcohol consumption

AUDs have a variable course characterised by periods of remission and relapse (see Schuckit, 2009). Although some individuals achieve long-term sobriety without treatment, others need treatment to stop the cycles of remission and relapse. Treatment includes psychosocial treatments and pharmacotherapy.

Psychosocial treatments

Several psychosocial treatments, as well as attending self-help groups, have been proven to be useful in the treatment of AUDs (Kleber et al., 2007). As an example, brief interventions are recommended to reduce alcohol consumption of heavy drinkers (NIAAA, 2005), while other psychosocial treatments (such as cognitive behavioural therapies, motivational enhancement therapies, and 12-step facilitation counselling) to treat AUDs (Project Match Research Group, 1998).

Brief interventions are short (5-20 minutes) focused counselling sessions (Fleming et al., 2002) that may be delivered by healthcare workers during routine office visits (NIAAA, 2005). A meta-analysis study, of 21 randomised-controlled trials, including a total of 7,286 subjects (Kaner et al., 2007), showed that brief interventions promote significant lasting reductions in drinking levels in heavy drinkers.

Sex - gender differences and pregnancy

A meta-analysis of subjects divided by gender (including less than 6% of women) did not find any significant benefit of brief interventions in reducing drinking in women (Kaner et al., 2007). On the other hand, another meta-analysis evaluated the results obtained by a higher number of female heavy drinkers (33%) and found that brief interventions induce a similar reduction in alcohol consumption in men and women (Ballesteros et al., 2004). Thus, setting up new studies is urgently needed in order to understand the therapeutic relevance of brief interventions in female heavy drinkers.

A recent review study evaluated the effectiveness of psychological interventions - ranging from a 10-minute education session and the provision of a self-help manual through to an hour-long motivational interview with reinforcement at each prenatal visit - in reducing alcohol consumption of a total of 715 heavy drinker, pregnant women (Stade et al., 2009). This review concluded that psychosocial interventions may increase abstinence from alcohol, and reduce alcohol consumption among pregnant women; however, the results were not consistent. Another review article found that pregnant heavy drinkers are highly motivated to reduce their alcohol intake and that brief interventions and control treatments were equally effective in reducing alcohol consumption without significant differences between groups (Nilsen, 2009).

Project Match Research Group (1998) showed that **cognitive behavioural therapy** and 12-step facilitation counselling (focused to “facilitate” a commitment to self-help groups of the association “Alcoholics Anonymous”) gave better results than **motivational enhancement therapy** in reducing alcohol consumption and alcohol-related negative consequences (Project Match Research Group, 1998). Another large, randomised, controlled trial evaluated the efficacy of medications (naltrexone, acamprosate, or placebo), behavioural therapies (combining some aspects of behavioural intervention, cognitive behavioural therapy, 12-step facilitation, and motivational interviewing), medical management, and their combinations in a 16-week treatment period in 1,383 patients (482 women and 955 men) affected by AUDs (Anton et al., 2006). The results of this study showed a

substantial reduction in drinking in all groups, with better results achieved in patients who received naltrexone and medical management, or behavioural therapies and medical management; no other combination produced better efficacy than these two combinations. This study concluded that naltrexone and medical management should be therefore recommended to all patients affected by AUDs as it may be delivered by primary care physicians (Anton et al., 2006). Agosti and colleagues (2012) also suggested that the benefit of the addition of a psychosocial intervention to medication in treating AUDs may be limited.

The Project Match Research Group (1998) found better outcomes in women than in men although this difference was no longer noticeable after a 3 year follow-up period (Project Match Research Group, 1998). Conversely, other studies found no difference between men and women in the response to psychotherapy [378 women and 848 men in response to naltrexone and medical management (Greenfield et al., 2010a); 106 women and 106 men affected by AUDs in the response to psychotherapies (Diehl et al. 2007)]. Globally, these results suggest that the small differences observed in previous studies may be due, at least in part, to the heterogeneous samples evaluated and that the combination of naltrexone and medical management should be also recommended to women affected by AUDs (Greenfield et al., 2010a).

No clinical trial has been conducted to evaluate the effectiveness of psychosocial interventions in pregnant women affected by AUDs (Lui et al., 2008), and there is insufficient evidence to recommend the routine use of home visits during pregnancy in these patients (Doggett et al., 2005). Globally, these data indicate that it is necessary to investigate the effectiveness of psychosocial interventions in pregnancy in consideration to the fact that effectiveness of these interventions could reduce the risk of foetal malformations that may occur with medications.

The effectiveness of **attending self-help groups** has not been evaluated in randomised studies (Kleber et al., 2007). However, it has been found that subjects who attend Alcoholics Anonymous achieve better rates of abstinence (about twice as high as those who do not attend this self-help group) and that higher levels of attendance are related to higher rates of abstinence (Kaskutas, 2009).

Two recent studies found that men and women use and attend self-help groups differently, but that there was no difference in the beneficial effects achieved (Kelly, Hoepfner, 2013; Witbrod, Delucchi, 2011). No clinical trial has been conducted to evaluate the effectiveness of attending self-help groups in pregnant women affected by AUDs (Lui et al., 2008).

Pharmacotherapy

The existing landscape of pharmacological treatments for AUDs is limited. At present, in the US, four medications – disulfiram, acamprosate, oral and extended-release naltrexone – have been approved by the US Food and Drug Administration to treat AUDs; in Europe, extended-release naltrexone is not available, whereas nalmefene has recently received marketing authorisation. In Italy and Austria, GHB is also available (Leone et al., 2010). All of these agents

have demonstrated some ability to reduce drinking and/or increase the abstinence time, but results have not always been consistent. In general, the magnitude of effect of the available pharmacotherapies for AUDs is modest, with no treatment adequately suiting all patients (van de Brink, 2012). Among these agents, acamprosate has been estimated to be the most widely prescribed drug for AUDs in the US (Mark et al., 2009).

Disulfiram has been approved by the US Food and Drug Administration for the treatment of AUDs since 1951 (Suh et al., 2006). It inhibits the enzyme responsible for converting acetaldehyde to acetate in metabolising alcohol and increases the concentration of acetaldehyde.

The accumulation of acetaldehyde produces unpleasant signs and symptoms such as facial flushing, sweating, and mild headache. At a moderate level of intensity, the reaction may also include nausea, tachycardia, palpitation, hyperventilation, hypotension, and dyspnoea. In more severe reactions, vomiting, respiratory depression, cardiovascular collapse, arrhythmias, myocardial infarction, acute congestive heart failure, unconsciousness, convulsions, and death may occur (Jørgensen et al., 2011). Disulfiram should therefore prevent patients from drinking to avoid the occurrence of these unpleasant signs and symptoms when they are treated with this medication (Kleber et al., 2007). However, its use has been limited because there are difficulties in getting patients to take disulfiram on a regular basis and, despite the fact it has been used for more than 60 years for the treatment of AUDs, its effectiveness has not yet been proven (Garbutt et al., 1999). The evaluation of effectiveness and tolerability of disulfiram was the aim of a recent review article (Jørgensen et al., 2011). Namely, 11 randomised clinical trials were selected (published from 1979 to 2010), including a total of 1,527 patients. This study found that, when compared with placebo, none, or other treatments, supervised treatment with disulfiram had some effect on short-term abstinence but its long-term effect had not yet been evaluated.

Disulfiram also inhibits dopamine β -hydroxylase, an enzyme involved in catecholamine synthesis (Faiman, 1979; Haley, 1979; Wright, Moore, 1990), catalysing the hydroxylation of dopamine to norepinephrine, thus changing the ratios of dopamine to norepinephrine (Stanley et al., 1997). This last effect induced a new interest in disulfiram for treatment in cocaine use disorder and pathological gambling (Charpeaud et al., 2011).

Sex-gender differences and pregnancy

The number of women recruited in randomised clinical trials was too low to evaluate the effectiveness and safety of disulfiram in the treatment of female patients affected by AUDs or possible sex-gender differences in the response to it (Jørgensen et al., 2011). However, it has been found that oral contraceptives increased the activity of dopamine β -hydroxylase in women (Rockson et al., 1975) and in rodents (Serova et al., 2002), indicating the importance of hormones in controlling the activity of this enzyme. Importantly, women show significantly lower activity than men of another enzyme involved in catabolism of dopamine, catechol-O-methyltransferase (COMT) (Boudikova et al., 1990; Chen et al., 2004; Jiang et al., 2003). Therefore, the effects of disulfiram may be attenuated in women.

Regarding its possible use in pregnancy, a recent review article concluded that, to date, no randomised clinical trial has been conducted to evaluate the effectiveness, safety or tolerability of disulfiram in pregnant women affected by AUDs (Smith et al., 2009). In the US, disulfiram is included in the “class C pregnancy category” which means that there is evidence of adverse effects in animal studies, but no adequate or well-controlled human studies.

Acamprosate is a drug with a chemical structure that is similar to that of the endogenous amino acid N-acetyl homotaurine (Littleton, 2007). Its mechanism of action is not completely known; however, it is thought to work at brain glutamate receptor sites, stabilising glutamatergic function: during alcohol withdrawal, the increased calcium influx through NMDA glutamate receptors induces a state of neuronal hyperexcitability associated with physical symptoms of withdrawal and an increased desire to start drinking again. By inhibiting calcium influx, acamprosate is claimed to restore the balance between inhibitory and excitatory neurotransmitters, attenuating alcohol craving (Littleton, 2007). In animal models of AUDs, acamprosate a) attenuated self-administration of alcohol under free choice conditions, b) diminished the temporary increase in voluntary alcohol intake observed during a reinstated access to alcohol after a period of deprivation (the “alcohol deprivation effect”, used as a model of relapse), and c) inhibited development of the conditioned place preference (Littleton, 2007).

A recent meta-analysis evaluated the results obtained by 6,915 participants affected by AUDs and enrolled in 24 randomised controlled trials finding that, compared to placebo, acamprosate significantly reduced the risk of any drinking and increased the cumulative abstinence duration, inducing the occurrence of diarrhoea as the only significant side effect (Rösner et al., 2010a).

Sex-gender differences and pregnancy

Acamprosate seems to have the same pharmacokinetics in men and women (Saivin et al., 1998). A meta-analysis showed that 4,794 men and 1,317 women affected by AUDs (recruited in 22 out of the 24 trials already evaluated in a previous meta-analysis by Rosner et al., 2010) did not differ in any measure of acamprosate efficacy, safety or tolerability (Mason, Leher, 2012). However, some recent studies have suggested that men and women may differ in their response to drugs interacting with the glutamatergic system (Micevych, Mermelstein, 2008; Parkash, et al., 2010). To date, no randomised clinical trial has been conducted to evaluate the effectiveness, safety or tolerability of acamprosate in pregnant women affected by AUDs (Smith et al., 2009). In the United States, acamprosate is included in pregnancy category C.

Naltrexone is a competitive antagonist at μ , δ , and κ -opioid receptors, which was approved for the treatment of AUDs in 1994 by the US Food and Drug Administration (Swift, 2013). It is also approved for the treatment of AUDs in much of the world, including Europe, Asia, and Australia. Naltrexone is thought to act by diminishing part of the rewarding effects induced by alcohol consumption and, subsequently, blunting alcohol cravings. The endogenous opioid receptors are assumed to mediate, at least in part, the pleasant and euphoric effects of drinking. As naltrexone binds to these receptors, the pleasant and euphoric

effects of drinking diminish and subjects experience a reduced “high” after alcohol consumption compared to former drinking (Volpicelli, 1995). In animal models of AUDs, naltrexone decreases alcohol intake under free-choice conditions and prevents the development of conditioned place preference for alcohol; however, it fails to consistently reduce the “alcohol deprivation effect”.

A recent meta-analysis evaluated the results obtained in 7,793 patients affected by AUDs enrolled in 50 double-blind randomised controlled trials, which compared the effects of oral naltrexone with placebo or active control on drinking-related outcomes (Rösner et al., 2010b). According to this study, oral naltrexone effectively reduced the risk of heavy drinking and decreased drinking days, inducing gastrointestinal problems (e.g. nausea) and sedative effects (e.g. daytime sleepiness) as the main side effects. Globally, meta-analyses of controlled clinical trials of naltrexone in AUDs treatment show modest effect sizes for efficacy in reducing heavy drinking (Swift, 2013). The main limitations in the clinical use of naltrexone are the risk of hepatotoxicity and the low compliance shown by patients (Kranzler et al., 2008). Concerns about low adherence with oral formulations induced the development of slow release formulations of naltrexone and now depot injectable formulations are available that only require monthly intramuscular administration (Garbutt et al., 2005; Kranzler et al., 2004; Lobmaier et al., 2011).

Sex-gender differences and pregnancy

The literature on oral naltrexone has not clearly identified sex-gender differences in the response to it (Baros et al., 2008; Gastfriend, 2011; O'Malley, et al., 2007; Pettinati et al., 2008). However, the majority of data suggests that women report smaller drug effects than men (Franck, Jayaram-Lindström, 2013; Garbutt et al., 2005; Krishnan-Sarin et al., 2007; Ray et al., 2008). When evaluating naltrexone effects during the descending limb of the blood alcohol concentration, it was seen that men had greater alcohol-induced stimulation and greater naltrexone-induced decrease of this stimulation than women (Ray et al., 2008). Numerous gender differences have been found in the opioidergic system, at least with agonists, especially in the field of analgesia. Women show higher μ - and κ -opioid receptor sensitivity than men (Fillingim et al., 2004; Gear et al., 1996a, 1996b, 1999, 2003; Sarton et al., 2000). In addition, sex-gender differences were observed in the relationship between opioid system and the HPA axis (Kudielka et al., 2009; Uhart et al., 2006; Zubietta et al., 1999, 2002). Opioids inhibit the HPA axis through μ -opioid receptors (Valentino, Van Bockstaele 2001), and naltrexone, which is a primarily μ -opioid receptor antagonist, acutely disinhibits the HPA axis. This effect seems to occur in a sex-gender specific way. Accordingly, naltrexone induces a higher cortisol release in women than in men (Lovallo et al., 2012).

When taken orally, naltrexone is quickly absorbed and undergoes first-pass metabolism in the liver. Conversely, the extended release formulations (which are intramuscularly injected) have lower risks of hepatotoxicity compared to the oral formulation since naltrexone does not undergo first pass metabolism in the liver (Franck, Jayaram-Lindström, 2013). Because of the frequent alcohol-induced liver disease developed by women, extended release formulations should be more suitable than oral ones to women affected by AUDs, even if oral naltrexone is more efficacious in women than in men (Kiefer et al., 2005). Three extended release

formulations were evaluated for the therapy of AUDs; although patients of both sexes were recruited, the sex analysis was performed for only one formulation. The results of this analysis indicate that naltrexone administration was effective in men but not in women (Johnson, 2007). A treatment-by-gender interaction was found in one study in which the treatment effect was found to be significant in men but not in women even if they represented only a minority of subjects - 201 out of 624 - equal to 32.2% (Garbutt et al., 2005). One study suggested a larger response in women, but the study measured the immediate effects after isolated drinking events, rather than effects on drinking behaviour over an extended period of time (Tidey et al., 2008).

To date, no randomised clinical trial has been conducted to evaluate the effectiveness or safety of naltrexone in pregnant women affected by AUDs (Smith et al., 2009). In the United States, naltrexone is included in pregnancy category C. However, some studies suggest good tolerability of naltrexone during pregnancy in patients affected by opioid use disorders as well as strong interest among pregnant women in its use to reduce alcohol consumption (Jones et al., 2012).

Nalmefene, a μ -opioid antagonist like naltrexone, received marketing authorisation for the reduction of alcohol consumption in adults affected by AUDs by the European Committee for Medicinal Products for Human Use (Aubin and Daeppen, 2013). Like naltrexone, the proposed mechanism of action of nalmefene is to reduce the reinforcing effects of alcohol, helping patients to reduce drinking by blocking the rewarding effects of alcohol. However, nalmefene has a longer plasma half-life, shows more effective binding to central opioid receptors, and has higher bioavailability and lower liver toxicity than naltrexone (Franck, Jayaram-Lindström, 2013; Swift, 2013).

Two recent, large, randomised, double-blind, placebo-controlled, multicentre trials including 1,322 patients affected by AUDs demonstrated its effectiveness and safety in the treatment of AUDs compared to placebo (Gual et al., 2013; Mann et al., 2013). Both of the studies found that patients taking nalmefene significantly reduced the number of heavy drinking days compared to placebo. Nausea, dizziness, and fatigue were the more frequent side effects.

Sex-gender differences and pregnancy

Despite 394 out of 1,322 recruited patients being women (equal to 29.8%), two recent large, randomised controlled trials did not report any sex-gender differences in the effectiveness, safety or tolerability of nalmefene (Gual et al., 2013; Mann et al., 2013). To date, no randomised controlled trial has been conducted to evaluate the effectiveness, safety or tolerability of nalmefene in pregnant women affected by AUDs (Smith et al., 2009).

GHB, an endogenous constituent of the mammalian brain, is a pharmacological agent for the treatment of narcolepsy and AUDs, as well as a drug of abuse, which is illicitly used due to some of its psychotropic effects (Agabio et al., 2010). These apparently opposite effects of GHB are thought to be due to its actions in the mesocorticolimbic dopamine system and on GABAB receptors located in the ventral tegmental area. In this area, low doses of GHB (corresponding to those reached after recreational use) activate the GABAB receptors in GABAB neurons, decreasing GABA release, and, in turn, disinhibiting dopamine neurons.

Conversely, higher doses of GHB activate the GABAB receptors in dopaminergic neurons, causing their hyperpolarisation and inducing anti-craving effects (Agabio et al., 2010). Accordingly with this latter effect, preclinical studies showed that GHB administration significantly reduced voluntary alcohol consumption and the motivational properties of alcohol (Gessa et al., 2000).

Evaluation of the clinical effectiveness and tolerability of GHB in the treatment of AUDs was the aim of a recent meta-analysis (Leone et al., 2010). This study selected 7 trials (all conducted in Italy), including 362 participants affected by AUDs, and found that patients who received GHB obtained better results than those who received naltrexone, disulfiram or placebo in maintaining abstinence and in reducing the severity of alcohol craving. The most frequent side effects induced by GHB were dizziness and vertigo. However, sample sizes in individual trials were generally small, ranging from 17 to 86 participants.

Gender differences and pregnancy

The number of female patients recruited in the randomised clinical trials conducted to evaluate the effectiveness and safety of GHB in the treatment of AUDs was too low to evaluate its efficacy, safety or tolerability in women. To date, no randomised clinical trial has been conducted to evaluate the effectiveness, safety or tolerability of GHB in pregnant women affected by AUDs (Smith et al., 2009).

Utilisation of service

The majority of subjects affected by AUDs never receive treatment. Using data from a large epidemiological study conducted in the US, it has been evaluated that less than 15% of these individuals have received alcohol treatment, including self-help group participation (Cohen et al., 2007). At most, approximately 9% of the population needing treatment for AUDs have received the equivalent of a single prescription of a medication approved to treat the disorder (Mark et al., 2009).

Sex-gender differences

Women are less likely than men to seek treatment and pregnant women are less likely to receive alcohol treatment than non-pregnant women (Greenfield et al., 2007; Terplan et al., 2012). Various factors have been analysed to explain this finding, such as childcare responsibilities, transportation, financial status, and social stigma (Greenfield et al., 2007; 2010a). Interestingly, it has been found that childcare, women only treatment, and programs focused on pregnant and non-pregnant women enhance treatment seeking and retention by women affected by AUDs (Dahlgre, Willander, 1989; Niv, Hser, 2007).

Conclusions and take home messages

AUDs are associated with a huge health burden in most countries worldwide. Actually, the epidemiology and natural history of AUDs are strongly dependent on sex-gender and relatively few studies have investigated sex-gender

differences in the effectiveness and safety of specific behavioural or pharmacologic therapy of AUDs in non-pregnant as well as pregnant women. Therefore, it is necessary to investigate sex-gender differences in all steps of drug discovery and the development of treatments for these disorders. Specific information on female patients should always be collected. Namely, for women of child-bearing age, the phase of menstrual cycle, use of contraceptive methods (oral or depot contraceptives, barrier methods such as the diaphragm or condom), state of pregnancy, or breast-feeding; for women in menopause, data of last menstruation and the possible use of substitutive treatment. The influences of exogenous hormones is relevant in view of the possible bidirectional relationship between sex hormones and drugs and the effect of sexual steroids on rewarding system.

Men are usually overrepresented in comparison with women; as a result, the female samples are too small and do not permit a fair statistical analysis for women. Thus, the results obtained in men are translatable to women; consequentially women receive a therapy that is less based on the principles of evidence-based medicine than men. Pharmacological agents should be tested in sufficient numbers of different subgroups of the female population such as adolescent, adult, and elderly females because of the possible differences to the pharmacological response among them.

Comorbidity should always be investigated among women affected by AUDs as comorbid patients require more intensive treatments than patients without other mental disorders. Another topic to be evaluated is the possible difference between women and men in response to the “placebo treatment”. The response to medical treatments of AUDs should be also investigated considering the possible role of different ethnic groups.

Larger efforts should be reserved to improving the knowledge of pharmacological agents to be administered to pregnant women affected by AUDs. Firstly, these studies should determine whether the potential benefits for the mother outweigh the risks to the foetus; secondly, they should evaluate the effectiveness and safety of the different drugs during the different periods of pregnancy.

As already mentioned, AUDs are associated with numerous sex-gender differences but understanding of the mechanisms behind the sex-gender disparity is not completely clear. Therefore, for the future, it is of major relevance and importance to perform studies in order to gain a more detailed knowledge of sex and gender differences. In particular, the design of clinical and preclinical studies should have a sex-gender-based perspective to reach proper conclusions on efficiency and safety profiles for both sexes and to reduce the time needed for the translation of research results into daily clinical practice. A sex-gender perspective could also help to increase adherence and compliance to therapy and could lead to more appropriate treatment in women.

Acknowledgments

This study was supported by a grant from the Regione Sardegna “Progetti di farmacovigilanza attiva, finanziabili attraverso i fondi fv 2008/09”. We are grateful to the Mayor of Osilo and local government staff for the laboratory space they made available to the National Laboratory in Gender Medicine of INBB.

References

Agabio R, Carai M A M, Gessa G L and Colombo G (2010) Gamma-Hydroxybutyric Acid (GHB). In: Koob G.F., Le Moal M. and Thompson R.F. (eds.) *Encyclopedia of Behavioral Neuroscience*, volume 2, pp. 76–83 Oxford: Academic Press.

Agosti V, Nunes EV, O’Shea D. Do manualized psychosocial interventions help reduce relapse among alcohol-dependent adults treated with naltrexone or placebo? A meta-analysis. *Am J Addict.* 2012 Nov-Dec;21(6):501-7.

Amato L, Minozzi S, Davoli M. Efficacy and safety of pharmacological interventions for the treatment of the Alcohol Withdrawal Syndrome. *Cochrane Database Syst Rev.* 2011 Jun 15;(6):CD008537.

American Psychiatric Association. (2000) *Diagnostic and Statistical Manual of Mental Disorders*, Fourth edition, Text Revision: DSM-IV-TR. Washington DC.

American Psychiatric Association. (2013) *Diagnostic and Statistical Manual of Mental Disorders*, Fifth edition. Arlington, VA, American Psychiatric Association.

Anderson GD (2005). Pregnancy-induced changes in pharmacokinetics: a mechanistic-based approach. *Clin Pharmacokinet* 44: 989-1008.

Anderson R, Walton M (2005). Contraceptive choices: is the future with men? *Womens Health (Lond Engl)* 1: 183-189.

Anton RF, O’Malley SS, Ciraulo DA, Cisler RA, Couper D, Donovan DM, Gastfriend DR, Hosking JD, Johnson BA, LoCastro JS, Longabaugh R, Mason BJ, Mattson ME, Miller WR, Pettinati HM, Randall CL, Swift R, Weiss RD, Williams LD, Zweben A; COMBINE Study Research Group. Combined pharmacotherapies and behavioral interventions for alcohol dependence: the COMBINE study: a randomized controlled trial. *JAMA.* 2006 May 3;295(17):2003-17.

Aubin HJ, Daeppen JB. Emerging pharmacotherapies for alcohol dependence: A systematic review focusing on reduction in consumption. *Drug Alcohol Depend.* 2013 Jun 6. doi:pii: S0376-8716(13)00154-3.

Ballesteros J, González-Pinto A, Querejeta I, Ariño J. Brief interventions for hazardous drinkers delivered in primary care are equally effective in men and women. *Addiction.* 2004 Jan;99(1):103-8.

Baraona E, Abittan CS, Dohmen K, Moretti M, Pozzato G, Chayes ZW, Schaefer C, Lieber CS. Gender differences in pharmacokinetics of alcohol. *Alcohol Clin Exp Res.* 2001 Apr;25(4):502-7.

Baros AM, Latham PK, Anton RF. Naltrexone and cognitive behavioral therapy for the treatment of alcohol dependence: do sex differences exist? *Alcohol Clin Exp Res* 2008 May;32(5):771–6.

Belujon P, Grace AA. Hippocampus, amygdala, and stress: interacting systems that affect susceptibility to addiction. *Ann N Y Acad Sci.* 2011 Jan;1216:114-21.

Boileau I, Assaad JM, Pihl RO, Benkelfat C, Leyton M, Diksic M, Tremblay RE, Dagher A. Alcohol promotes dopamine release in the human nucleus accumbens. *Synapse*. 2003 Sep 15;49(4):226-31.

Boudikova B, Szumlanski C, Maidak B, Weinshilboum R (1990) Human liver catechol-O-methyltransferase pharmacogenetics. *Clin Pharmacol Ther* 48:381–389.

Campesi I, Carru C, Zinellu A, Occhioni S, Sanna M, Palermo M, et al. (2013). Regular Cigarette Smoking Influences the Transsulfuration Pathway, Endothelial Function, and Inflammation Biomarkers in a Sex-Gender Specific Manner in Healthy Young Humans. *Am J Transl Res In press*.

Carroll ME, Anker JJ. Sex differences and ovarian hormones in animal models of drug dependence. *Horm Behav*. 2010 ;58(1):44-56.

Ceylan-Isik AF, McBride SM, Ren J (2010) Sex difference in alcoholism: who is at a greater risk for development of alcoholic complication? *Life Sci* 87:133–138

Chang PH, Steinberg MB. Alcohol withdrawal. *Med Clin North Am*. 2001 Sep;85(5):1191-212.

Charpeaud T, Geneste J, Schmidt J, Llorca PM, Brousse G. Disulfiram and addiction: reminders and new perspectives of use. *Therapie*. 2011 May-Jun;66(3):273-80.

Chen J, Lipska BK, Halim N, Ma QD, Matsumoto M, Melhem S, Kolachana BS, Hyde TM, Herman MM, Apud J, Egan MF, Kleinman JE, Weinberger DR (2004) Functional analysis of genetic variation in catechol-O-methyltransferase (COMT): effects on mRNA, protein, and enzyme activity in postmortem human brain. *Am J Hum Genet* 75:807–821.

Chetty M, Mattison D, Rostami-Hodjegan A. Sex differences in the clearance of CYP3A4 substrates: exploring possible reasons for the substrate dependency and lack of consensus. *Curr Drug Metab*. 2012 Jul;13(6):778-86

Chisari M, Eisenman LN, Covey DF, Mennerick S, Zorumski CF. The sticky issue of neurosteroids and GABA(A) receptors. *Trends Neurosci*. 2010 Jul;33(7):299-306.

Cohen E, Feinn R, Arias A, Kranzler HR. Alcohol treatment utilization: Findings from the National Epidemiologic Survey on Alcohol and Related Conditions. *Drug Alcohol Depend*. 2007 Jan 12;86(2-3):214-21.

Colombo G., Loi B., Carai M.A.M., Franconi F., Gessa G.L. Elevated alcohol drinking in female Sardinian alcohol-preferring rats. *Alcohol. Clin. Exp. Res*. 36(Suppl. 2):96A, 2012.

Compton WM 3rd, Cottler LB, Ben Abdallah A, Phelps DL, Spitznagel EL, Horton JC. Substance dependence and other psychiatric disorders among drug dependent subjects: race and gender correlates. *Am J Addict*. 2000 Spring;9(2):113-25.

Crawford P, Chadwick DJ, Martin C, Tjia J, Back DJ, Orme M. The interaction of phenytoin and carbamazepine with combined oral contraceptive steroids. *Br J Clin Pharmacol* 1990;30:892–896

Crawford P. Interactions between antiepileptic drugs and hormonal contraception. *CNS Drugs* 2002;16:263–272

Culberson JW, Ziska M. Prescription drug misuse/abuse in the elderly. *Geriatrics* 2008; 63: 22–31.

Cyr MG, McGarry KA. Alcohol use disorders in women. Screening methods and approaches to treatment. *Postgrad Med.* 2002 Dec;112(6):31-2, 39-40, 43-7.

Dahlgren L, Willander A. Are special treatment facilities for female alcoholics needed? A controlled 2-year follow-up study from a specialized female unit (EWA) versus a mixed male/female treatment facility. *Alcohol Clin Exp Res.* 1989 Aug;13(4):499-504.

Deshmukh A, Rosenbloom MJ, Sassoon S, O'Reilly A, Pfefferbaum A, Sullivan EV. Alcoholic men endorse more DSM-IV withdrawal symptoms than alcoholic women matched in drinking history. *J Stud Alcohol.* 2003 May;64(3):375-9.

Devaud LL, Alele P. Differential effects of chronic ethanol administration and withdrawal on gamma-aminobutyric acid type A and NMDA receptor subunit proteins in male and female rat brain. *Alcoholism: Clinical & Experimental Research* 2004;28:957–65.

Diaz Martinez MC, Diaz Martinez A, Villamil Salcedo V, et al. Efficacy of metadoxine in the management of acute alcohol intoxication. *J Int Med Res* 2002;30:44–51.

Diehl A, Croissant B, Batra A, Mundle G, Nakovics H, Mann K. Alcoholism in women: is it different in onset and outcome compared to men? *Eur Arch Psychiatry Clin Neurosci.* 2007 Sep;257(6):344-51.

Doggett C, Burrett S, Osborn DA. Home visits during pregnancy and after birth for women with an alcohol or drug problem. *Cochrane Database Syst Rev.* 2005 Oct 19;(4):CD004456.

Eagon PK. Alcoholic liver injury: influence of gender and hormones. *World J Gastroenterol.* 2010 Mar 21;16(11):1377-84.

El-Maarri O, Becker T, Junen J, Manzoor SS, Diaz-Lacava A, Schwaab R, et al. (2007). Gender specific differences in levels of DNA methylation at selected loci from human total blood: a tendency toward higher methylation levels in males. *Hum Genet* 122: 505-514.

Emanuele M, Wezeman F, Emanuele M. Alcohol's effects on female reproductive functions. *Alcohol Res World* 2002;26(4);274-81

Enomoto A, Endou H (2005). Roles of organic anion transporters (OATs) and a urate transporter (URAT1) in the pathophysiology of human disease. *Clin Exp Nephrol* 9: 195-205.

Epstein EE, Fischer-Elber K, Al-Otaiba Z. Women, aging, and alcohol use disorders. *J Women Aging.* 2007;19(1-2):31-48.

Erstad BL, Cotugno CL. Management of alcohol withdrawal. *Am J Health Syst Pharm.* 1995 Apr 1;52(7):697-709.

Faiman MD. Biochemical pharmacology of disulfiram. In E. Majchowicz, & E. P. Nobel (Eds.), *Biochemistry and Pharmacology of Ethanol*, 1979 vol. 2 (pp. 325–348). New York: Plenum.

Fillingim RB, Gear RW. Sex differences in opioid analgesia: clinical and experimental findings. *Eur J Pain* 2004;8:413–425.

Finn DA, Beckley EH, Kaufman KR, Ford MM. Manipulation of GABAergic steroids: sex differences in the effects on alcohol drinking- and withdrawal-related behaviors. *Horm Behav.* 2010 Jan;57(1):12-22.

Fleming MF, Mundt MP, French MT, Manwell LB, Stauffacher EA, Barry KL. Brief physician advice for problem drinkers: long-term efficacy and benefit-cost analysis. *Alcohol Clin Exp Res.* 2002 Jan;26(1):36-43.

Fletcher CV, Acosta EP, Strykowski JM. Gender differences in human pharmacokinetics and pharmacodynamics. *J Adolesc Health.* 1994 Dec;15(8):619-29

Franck J, Jayaram-Lindström N. Pharmacotherapy for alcohol dependence: status of current treatments. *Curr Opin Neurobiol.* 2013 Jun 26. doi:pii: S0959-4388(13)00119-0. 10.1016/j.conb.2013.05.005.

Franconi F, Brunelleschi S, Steardo L, Cuomo V. Gender differences in drug responses. *Pharmacol Res.* 2007 Feb;55(2):81-95.

Franconi F, Seghieri G, Canu S, Straface E, Campesi I, Malorni W (2008). Are the available experimental models of type 2 diabetes appropriate for a gender perspective? *Pharmacol Res* 57: 6-18.

Franconi F, Carru C, Malorni W, Vella S, Mercuro G (2011a). The effect of sex/gender on cardiovascular pharmacology. *Curr Pharm Des* 17: 1095-1107.

Franconi F, Carru C, Spoletini I, Malorni W, Vella S, Mercuro G, et al. (2011b). A GENS-based approach to cardiovascular pharmacology: impact on metabolism, pharmacokinetics and pharmacodynamics. *Ther Deliv* 2: 1437-1453.

Galimberti CA, Mazzucchelli I, Arbasino C, Canevini MP, Fattore C, Perucca E. Increased apparent oral clearance of valproic acid during intake of combined contraceptive steroids in women with epilepsy. *Epilepsia* 2006;47:1569-1572

Gandhi M, Aweeka F, Greenblatt RM, Blaschke TF (2004). Sex differences in pharmacokinetics and pharmacodynamics. *Annu Rev Pharmacol Toxicol* 44: 499-523.

Garbutt JC, West SL, Carey TS, Lohr KN, Crews FT. Pharmacological treatment of alcohol dependence: a review of the evidence. *JAMA.* 1999 Apr 14;281(14):1318-25.

Garbutt JC, Kranzler HR, O'Malley SS, Gastfriend DR, Pettinati HM, Silverman BL, Loewy JW, Ehrich EW; Vivitrex Study Group. Efficacy and tolerability of long-acting injectable naltrexone for alcohol dependence: a randomized controlled trial. *JAMA.* 2005 Apr 6;293(13):1617-25.

Gastfriend DR. Intramuscular extended-release naltrexone: current evidence. *Ann N Y Acad Sci.* 2011 Jan;1216:144-66.

Gear RW, Gordon NC, Heller PH, Paul S, Miaskowski C, Levine JD. Gender difference in analgesic response to the kappa-opioid pentazocine. *Neurosci Lett* 1996a;205:207-209.

Gear RW, Miaskowski C, Gordon NC, Paul SM, Heller PH, Levine JD. Kappa-opioids produce significantly greater analgesia in women than in men. *Nat Med* 1996b;2:1248-1250.

Gear RW, Miaskowski C, Gordon NC, Paul SM, Heller PH, Levine JD. The kappa opioid nalbuphine produces gender- and dose-dependent analgesia and antianalgesia in patients with postoperative pain. *Pain* 1999;83:339-345.

Gear RW, Gordon NC, Miaskowski C, Paul SM, Heller PH, Levine JD. Sexual dimorphism in very lowdose nalbuphine postoperative analgesia. *Neurosci Lett* 2003;339:1-4.

Gessa GL, Agabio R, Carai MAM, Lobina C, Pani M, Reali R, Colombo G. Mechanism of the anti-alcohol effect of gamma-hydroxybutyric acid (GHB). *Alcohol* 20:271-276, 2000.

Gianoulakis C. Endogenous opioids and addiction to alcohol and other drugs of abuse. *Curr Top Med Chem.* 2009;9(11):999-1015.

Goldstein RB, Dawson DA, Chou SP, Grant BF. Sex differences in prevalence and comorbidity of alcohol and drug use disorders: results from wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions. *J Stud Alcohol Drugs.* 2012 Nov;73(6):938-50.

Gomberg, E.S.L. Drugs, alcohol, and aging. In: Kozlowski, L.T.; Annis, H.M.; Cappell, H.D.; et al. *Research Advances in Alcohol and Drug Problems.* Vol. 10. New York:

Plenum Press, 1990. pp. 171-213.

Greenfield SF, Brooks AJ, Gordon SM, Green CA, Kropp F, McHugh RK, Lincoln M, Hien D, Miele GM. Substance abuse treatment entry, retention, and outcome in women: a review of the literature. *Drug Alcohol Depend.* 2007 Jan 5;86(1):1-21.

Greenfield SF, Pettinati HM, O'Malley S, Randall PK, Randall CL. Gender differences in alcohol treatment: an analysis of outcome from the COMBINE study. *Alcohol Clin Exp Res.* 2010a Oct;34(10):1803-12.

Greenfield SF, Back SE, Lawson K, Brady KT. Substance abuse in women. *Psychiatr Clin North Am.* 2010b Jun;33(2):339-55.

Gual A, He Y, Torup L, van den Brink W, Mann K; for the ESENSE 2 Study Group. A randomised, double-blind, placebo-controlled, efficacy study of nalmefene, as-needed use, in patients with alcohol dependence. *Eur Neuropsychopharmacol.* 2013 Apr 3.

Hall W, Zador D. **The alcohol withdrawal syndrome.** *Lancet.* 1997 Jun 28;349(9069):1897-900.

Haley TJ. Disulfiram (tetraethylthioperoxydicarbonic diamide): A reappraisal of its toxicity and therapeutic application. *Drug Metab Rev.* 1979;9: 319-35.

Hasin DS, Stinson FS, Ogburn E, Grant BF. Prevalence, correlates, disability, and comorbidity of DSM-IV alcohol abuse and dependence in the United States: results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Arch Gen Psychiatry.* 2007 Jul;64(7):830-42.

Heading CE. Gender issues and the pharmacotherapy of substance abuse. *IDrugs.* 2008 Jun;11(6):428-32.

Heberlein A, Leggio L, Stichtenoth D, Hillemacher T. The treatment of alcohol and opioid dependence in pregnant women. *Curr Opin Psychiatry.* 2012 Nov;25(6):559-64.

Heinz A, Beck A, Grüsser SM, Grace AA, Wrase J. Identifying the neural circuitry of alcohol craving and relapse vulnerability. *Addict Biol.* 2009 Jan;14(1):108-18.

Helms CM, Rossi DJ, Grant KA. Neurosteroid influences on sensitivity to ethanol. *Front Endocrinol (Lausanne).* 2012;3:10.

Hensing G, Spak F. Introduction: gendering socio cultural alcohol and drug research. *Alcohol Alcohol.* 2009 Nov-Dec;44(6):602-6.

Inomata S, Nagashima A, Itagaki F, Homma M, Nishimura M, Osaka Y, Okuyama K, Tanaka E, Nakamura T, Kohda Y, Naito S, Miyabe M, Toyooka H. CYP2C19 genotype affects diazepam pharmacokinetics and emergence from general anesthesia. *Clin Pharmacol Ther.* 2005;78(6):647-55

Jiang H, Xie T, Ramsden DB, Ho SL (2003) Human catechol-O- methyltransferase down-regulation by estradiol. *Neuropharmacology* 45:1011–1018.

Johnson PB, Richter L, Kleber HD, McLellan AT, Carise D (2005) Telescoping of drinking-related behaviors: gender, racial/ethnic, and age comparisons. *Subst Use Misuse* 40:1139–1151

Johnson BA. Naltrexone long-acting formulation in the treatment of alcohol dependence. *Ther Clin Risk Manag.* 2007 Oct;3(5):741-9

Jones HE. Acceptance of naltrexone by pregnant women enrolled in comprehensive drug addiction treatment: an initial survey. *Am J Addict* 2012; 21:199–201.

Jørgensen CH, Pedersen B, Tønnesen H. The efficacy of disulfiram for the treatment of alcohol use disorder. *Alcohol Clin Exp Res.* 2011 Oct;35(10):1749-58.

Kaminsky Z, Wang SC, Petronis A (2006). Complex disease, gender and epigenetics. *Ann Med* 38: 530-544.

Kaskutas LA. Alcoholics anonymous effectiveness: faith meets science. *J Addict Dis.* 2009;28(2):145-57.

Kaner E, Beyer F, Dickinson H, Pienaar E, Campbell F, Schlesinger C, Heather N, Saunders J, Burnand B. Effectiveness of brief alcohol interventions in primary care populations. *Cochrane Database Syst Rev.* 2007 Apr 18;(2):CD004148.

Kelly JF, Hoepfner BB. Does Alcoholics Anonymous work differently for men and women? A moderated multiple-mediation analysis in a large clinical sample. *Drug Alcohol Depend.* 2013 Jun 1;130(1-3):186-93.

Ketter T, Flockhart D, Post R, et al. The emerging role of cytochrome P4503A in psychopharmacology. *J Clin Psychopharmacol.* 1995; 15: 387–395.

Kiefer F, Jahn H, Wiedemann K. A neuroendocrinological hypothesis on gender effects of naltrexone in relapse prevention treatment. *Pharmacopsychiatry.* 2005 Jul;38(4):184-6.

Kleber HD, Weiss RD, Anton RF Jr, George TP, Greenfield SF, Kosten TR, O'Brien CP, Rounsaville BJ, Strain EC, Ziedonis DM, Hennessy G, Connery HS, McIntyre JS, Charles SC, Anzia DJ, Cook IA, Finnerty MT, Johnson BR, Nininger JE, Summergrad P, Woods SM, Yager J, Pyles R, Cross CD, Peele R, Shemo JP, Lurie L, Walker RD,

Barnovitz MA, Gray SH, Saxena S, Tonnu T, Kunkle R, Albert AB, Fochtman LJ, Hart C, Regier D; Work Group on Substance Use Disorders; American Psychiatric Association; Steering Committee on Practice Guidelines. Treatment of patients with substance use disorders, second edition. American Psychiatric Association. *Am J Psychiatry*. 2007 Apr;164(4 Suppl):5-123.

Koechl B, Unger A, Fischer G. Age-Related Aspects of Addiction. *Gerontology* 2012;58:540-44.

Koob GF, Volkow ND. Neurocircuitry of addiction. *Neuropsychopharmacology*. 2010 Jan;35(1):217-38.

Kosten TR, O'Connor PG. Management of drug and alcohol withdrawal. *N Engl J Med*. 2003 May 1;348(18):1786-95.

Kranzler HR, Wesson DR, Billot L, Drug Abuse Sciences Naltrexone Depot Study Group. Naltrexone Depot for Treatment of Alcohol Dependence: A Multicenter, Randomized, Placebo-Controlled Clinical Trial. *Alcoholism: Clinical & Experimental Research*. 28(7):1051-1059, July 2004.

Kranzler HR, Stephenson JJ, Montejano L, Wang S, Gastfriend DR. Persistence with oral naltrexone for alcohol treatment: implications for health-care utilization. *Addiction*. 2008 Nov;103(11):1801-8.

Krishnan-Sarin S, Krystal JH, Shi J, Pittman B, O'Malley SS. Family history of alcoholism influences naltrexone-induced reduction in alcohol drinking. *Biol. Psychiatry*, 2007, 62, 694-7.

Kudielka BM, Hellhammer DH, Wust S. Why do we respond so differently? Reviewing determinants of human salivary cortisol responses to challenge. *Psychoneuroendocrinology* 2009;34:2-18

Kumar K, Sharma S, Kumar P, Deshmukh R. Therapeutic potential of GABA(B) receptor ligands in drug addiction, anxiety, depression and other CNS disorders. *Pharmacol Biochem Behav*. 2013 Jul 17. doi:pii: S0091-3057(13)00171-8. 10.1016/j.pbb.2013.07.003.

Legato MJ (2009). *Principles of Gender-Specific Medicine*. 2 edn. Elsevier Academic Press: Amsterdam; Boston.

Leggio L, Kenna GA, Ferrulli A, Zywiak WH, Caputo F, Swift RM, Addolorato G. Preliminary findings on the use of metadoxine for the treatment of alcohol dependence and alcoholic liver disease. *Hum Psychopharmacol*. 2011 Dec;26(8):554-9.

Leishman E, Kokesh KJ, Bradshaw HB. Lipids and addiction: how sex steroids, prostaglandins, and cannabinoids interact with drugs of abuse. *Ann N Y Acad Sci*. 2013 Apr;1282:25-38.

Lenz B, Müller CP, Stoessel C, Sperling W, Biermann T, Hillemacher T, Bleich S, Kornhuber J. Sex hormone activity in alcohol addiction: integrating organizational and activational effects. *Prog Neurobiol*. 2012 Jan;96(1):136-63.

Leone MA, Vigna-Taglianti F, Avanzi G, Brambilla R, Faggiano F. Gamma-hydroxybutyrate (GHB) for treatment of alcohol withdrawal and prevention of relapses. *Cochrane Database Syst Rev*. 2010 Feb 17;(2):CD006266.

Littleton JM. Acamprosate in alcohol dependence: implications of a unique mechanism of action. *J Addict Med.* 2007 Sep;1(3):115-25.

Liu X, Herbison AE. Estrous cycle- and sex-dependent changes in pre- and postsynaptic GABAB control of GnRH neuron excitability. *Endocrinology.* 2011 Dec;152(12):4856-64.

Liu Y, Colditz GA, Rosner B, Berkey CS, Collins LC, Schnitt SJ, Connolly JL, Chen WY, Willett WC, Tamimi RM. Alcohol Intake Between Menarche and First Pregnancy: A Prospective Study of Breast Cancer Risk. *J Natl Cancer Inst.* 2013 Aug 28.

Lobmaier PP, Kunøe N, Gossop M, Waal H. Naltrexone depot formulations for opioid and alcohol dependence: a systematic review. *CNS Neurosci Ther.* 2011 Dec;17(6):629-36.

Lovallo WR, King AC, Farag NH, Sorocco KH, Cohoon AJ, Vincent AS. Naltrexone effects on cortisol secretion in women and men in relation to a family history of alcoholism: studies from the Oklahoma Family Health Patterns Project. *Psychoneuroendocrinology.* 2012 Dec;37(12):1922-8.

Lui S, Terplan M, Smith EJ. Psychosocial interventions for women enrolled in alcohol treatment during pregnancy. *Cochrane Database Syst Rev.* 2008 Jul 16;(3):CD006753.

Mann K, Bladström A, Torup L, Gual A, van den Brink W. Extending the treatment options in alcohol dependence: a randomized controlled study of as-needed nalmefene. *Biol Psychiatry.* 2013 Apr 15;73(8):706-13.

Marino M, Masella R, Bulzomi P, Campesi I, Malorni W, Franconi F (2011). Nutrition and human health from a sex-gender perspective. *Mol Aspects Med* 32: 1-70.

Marinucci L, Balloni S, Carinci F, Locci P, Pezzetti F, Bodo M. Diazepam effects on nonsyndromic cleft lip with or without palate: epidemiological studies, clinical findings, genes and extracellular matrix. *Expert Opin Drug Saf* 2011; 10:23–33.

Mark TL, Kassed CA, Vandivort-Warren R, Levit KR, Kranzler HR. Alcohol and opioid dependence medications: Prescription trends, overall and by physician specialty. *Drug Alcohol Depend.* 2009 Jan 1;99(1-3):345-9.

Mason BJ, Leher P. Acamprosate for alcohol dependence: a sex-specific meta-analysis based on individual patient data. *Alcohol Clin Exp Res.* 2012 Mar;36(3):497-508.

Mayo-Smith MF. Pharmacological management of alcohol withdrawal. A meta-analysis and evidence-based practice guideline. American Society of Addiction Medicine Working Group on Pharmacological Management of Alcohol Withdrawal. *JAMA.* 1997 Jul 9;278(2):144-51.

McGarry KA, Cyr MG. Women and alcohol. *Compr Ther.* 2005 Spring;31(1):83-93.

Micevych PE, Mermelstein PG Membrane Estrogen Receptors Acting Through Metabotropic Glutamate Receptors: An Emerging Mechanism of Estrogen Action in Brain *Mol Neurobiol.* 2008; 38(1): 66–77.

Minozzi S, Amato L, Vecchi S, Davoli M. Anticonvulsants for alcohol withdrawal. *Cochrane Database Syst Rev.* 2010 Mar 17;(3):CD005064. doi: 10.1002/14651858.CD005064.pub3.

Nam HW, Mclver SR, Hinton DJ, Thakkar MM, Sari Y, Parkinson FE, Haydon PG, Choi DS. Adenosine and glutamate signaling in neuron-glia interactions: implications in alcoholism and sleep disorders. *Alcohol Clin Exp Res.* 2012 Jul;36(7):1117-25.

Nanchahal K, Ashton WD, Wood DA. Alcohol consumption, metabolic cardiovascular risk factors and hypertension in women. *Int J Epidemiol.* 2000 Feb;29(1):57-64.

National Institute on Alcohol Abuse and Alcoholism and National Institute of Health. (2005) *Helping Patients Who Drink Too Much.* Department of Health and Human Services, Public Health Service, National Institutes of Health, www.niaaa.nih.gov

National Institute on Alcohol Abuse and Alcoholism (NIAAA). *Helping People With Alcohol Problems: A Health Practitioner's Guide.* National Institutes of Health Pub. No. 03-3769. Bethesda, MD: U.S. Dept. of Health & Human Services, NIH, NIAAA, 2003.

Nelson HD, Humphrey LL, Nygren P, Teutsch SM, Allan JD. Postmenopausal hormone replacement therapy: scientific review. *JAMA.* 2002 Aug 21;288(7):872-81.

Nilsen P. Brief alcohol intervention to prevent drinking during pregnancy: an overview of research findings. *Curr Opin Obstet Gynecol.* 2009 Dec;21(6):496-500.

Niv N, Hser YI. Women-only and mixed-gender drug abuse treatment programs: service needs, utilization and outcomes. *Drug Alcohol Depend.* 2007 Mar 16;87(2-3):194-201.

O'Malley SS, Sinha R, Grilo CM, Capone C, Farren CK, McKee SA, Rounsaville BJ, Wu R. Naltrexone and cognitive behavioral coping skills therapy for the treatment of alcohol drinking and eating disorder features in alcohol dependent women: A randomized, double-blind, placebo controlled trial. *Alcoholism: Clinical and Experimental Research* 2007;31:625-634.

Parkash J, D'Anglemon De Tassigny X, Bellefontaine N, Campagne C, Mazure D, Buée-Scherrer V, Prevot V. Phosphorylation of N-methyl-D-aspartic acid receptor-associated neuronal nitric oxide synthase depends on estrogens and modulates hypothalamic nitric oxide production during the ovarian cycle *Endocrinology.* 2010; 151(6): 2723-2735.

Parlesak A, Billinger MH, Bode C, Bode JC. Gastric alcohol dehydrogenase activity in man: influence of gender, age, alcohol consumption and smoking in a Caucasian population. *Alcohol Alcoholism* 37, 388-393, 2002.

Pettinati HM; Kampman KM; Lynch KG, Suh JJ, Dackis CA, Oslin David W, O'Brien CP. Gender differences with high-dose naltrexone in patients with co-occurring cocaine and alcohol dependence. *J Substance Abuse Treatment* Jun;2008 34(4): 378-390.

Pizon AF, Becker CE, Bikin D. The clinical significance of variations in ethanol toxicokinetics. *J Med Toxicol.* 2007 Jun;3(2):63-72.

Project MATCH Research Group. Matching alcoholism treatments to client heterogeneity: treatment main effects and matching effects on drinking during treatment. *J Stud Alcohol.* 1998 Nov;59(6):631-9.

Rahman S, Prendergast MA. Cholinergic receptor system as a target for treating alcohol abuse and dependence. *Recent Pat CNS Drug Discov.* 2012 Aug;7(2):145-50.

Ray LA, Hutchison KE, MacKillop J, Miranda RJ, Audette A, Swift R, Monti PM. Effects of naltrexone during the descending limb of the blood alcohol curve. *Am. J. Addict.*, 2008, 17, 257-64.

Regitz-Zagrosek V (2012). *Sex and Gender Differences in Pharmacology*. edn, vol. 214. Springer.

Rehm J, Taylor B, Mohapatra S, Irving H, Baliunas D, Patra J, Roerecke M. Alcohol as a risk factor for liver cirrhosis: a systematic review and meta-analysis. *Drug Alcohol Rev.* 2010 Jul;29(4):437-45.

Roberto M, Gilpin NW, Siggins GR. The central amygdala and alcohol: role of -aminobutyric acid, glutamate, and neuropeptides. *Cold Spring Harb Perspect Med.* 2012 Dec 1;2(12):a012195.

Robins LN, Regier DA, eds. *Psychiatric disorders in America: the Epidemiologic Catchment Area Study*. New York: The Free Press, 1991.

Rockson SG, Stone RA, Gunnells JC, Schanberg SM, Kirshner N, Robinson RR. Plasma dopamine-beta-hydroxylase activity in oral contraceptive hypertension. *Circulation.* 1975 May;51(5):916-23.

Room R, Babor T, Rehm J. Alcohol and public health. *Lancet.* 2005 Feb 5-11;365(9458):519-30.

Rösner S, Hackl-Herrwerth A, Leucht S, Lehert P, Vecchi S, Soyka M. Acamprosate for alcohol dependence. *Cochrane Database Syst Rev.* 2010a Sep 8;(9):CD004332.

Rösner S, Hackl-Herrwerth A, Leucht S, Vecchi S, Srisurapanont M, Soyka M. Opioid antagonists for alcohol dependence. *Cochrane Database Syst Rev.* 2010b Dec 8;(12):CD001867.

Saivin S, Hulot T, Chabac S, Potgieter A, Durbin P, Houin G. Clinical pharmacokinetics of acamprosate. *Clin Pharmacokinet.* 1998 Nov;35(5):331.

Sarton E, Olofsen E, Romberg R, den Hartigh J, Kest B, Nieuwenhuijs D, Burm A, Teppema L, Dahan A. Sex differences in morphine analgesia: an experimental study in healthy volunteers. *Anesthesiology* 2000;93:1245-1254.

Schwartz JB. The influence of sex on pharmacokinetics. *Clin Pharmacokinet.* 2003; 42: 107-121.

Schuckit MA, Daeppen JB, Tipp JE, Hesselbrock M, Bucholz KK. The clinical course of alcohol-related problems in alcohol dependent and nonalcohol dependent drinking women and men. *J Stud Alcohol.* 1998 Sep;59(5):581-90.

Schuckit MA. *Drug and alcohol abuse. A clinical guide to diagnosis and treatment.* Sixth edition. New York: Springer., 2006.

Schuckit MA. Alcohol-use disorders. *Lancet.* 2009 Feb 7;373(9662):492-501.

Schuckit MA (2011). Ethanol and Methanol. In: Goodman & Gilman's *The Pharmacological Basis of Therapeutics*, 12th Edition. Editors: Brunton LL, Chabner BA, Knollmann BC. McGraw-Hill, Medical Publishing Division; 628-647.

- Schulte MT, Ramo D, Brown SA.** Gender differences in factors influencing alcohol use and drinking progression among adolescents. *Clin Psychol Rev.* 2009 Aug;29(6):535-47.
- Serova L, Rivkin M, Nakashima A, Sabban EL.** Estradiol stimulates gene expression of nor-epinephrine bioenzymes in rat locus coeruleus. *Neuroendocrinology.* 2002;75,193-200.
- Shipton D, Whyte B.** Mental health in focus: a prole of mental health and wellbeing in Greater Glasgow & Clyde, The Glasgow Centre for Population Health,2011:32-135.
- Shipton D, Bruce Whyte B, Walsh D.** Alcohol-related mortality in deprived UK cities: worrying trends in young women challenge recent national downward trends *J Epidemiol Community Health* doi:10.1136/jech-2013-202574).
- Shpilenia LS, Muzychenko AP, Gasbarrini G, Addolorato G.** Metadoxine in acute alcohol intoxication: a double-blind, randomized, placebo-controlled study. *Alcohol Clin Esp Res* 2002;26:340-6.
- Simoni-Wastila L, Yang HK.** Psychoactive drug abuse in older adults. *Am J Geriatr Pharmacother* 2006;4: 380-394.
- Smith EJ, Lui S, Terplan M.** Pharmacologic interventions for pregnant women enrolled in alcohol treatment. *Cochrane Database Syst Rev.* 2009 Jul 8;(3):CD007361.
- Sokol RJ, Delaney-Black V, Nordstrom B.** Fetal Alcohol Spectrum Disorder *JAMA,* Dec 2003; 290: 2996 - 2999.
- Soldin OP, Mattison DR** (2009). Sex differences in pharmacokinetics and pharmacodynamics. *Clin Pharmacokinet* 48: 143-157.
- Stade BC, Bailey C, Dzenoletas D, Sgro M, Dowswell T, Bennett D.** Psychological and/or educational interventions for reducing alcohol consumption in pregnant women and women planning pregnancy. *Cochrane Database Syst Rev.* 2009 Apr 15;(2):CD004228.
- Stanley WC, Li B, Bonhaus DW, Johnson LG, Lee K, Porter S, Walker K, Martinez G, Eglan RM, Whiting RL, Hegde SS.** Catecholamine modulatory effects of nopicastat (RS-25560-197), a novel, potent and selective inhibitor of dopamine-beta-hydroxylase. *Br J Pharmacol.* 1997 Aug;121(8):1803-9.
- Suh JJ, Pettinati HM, Kampman KM, O'Brien CP.** The status of disulfiram: a half of a century later. *J Clin Psychopharmacol.* 2006 Jun;26(3):290-302.
- Swift RM.** Naltrexone and nalmefene: any meaningful difference? *Biol Psychiatry.* 2013 Apr 15;73(8):700-1.
- Tamminga WJ, Wemer J, Oosterhuis B, et al.** CYP2D6 and CYP2C19 activity in a large population of Dutch healthy volunteers: indications for oral contraceptive- related gender differences. *Eur J Clin Pharmacol.* 1999; 670 55: 177-185
- Terplan M, McNamara EJ, Chisolm MS.** Pregnant and non-pregnant women with substance use disorders: the gap between treatment need and receipt. *J Addict Dis.* 2012;31(4):342-9.
- The ESEMeD/MHEDEA 2000 Investigators.** Prevalence of mental disorders in Europe: results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project. *Acta Psychiatr Scand* 2004; 109(Suppl. 420): 21-27.

Tidey JW, Monti PM, Rohsenow DJ, Gwaltney CJ, Miranda RJr, McGeary JE, MacKillop J, Swift RM, Abrams DB, Shiffman S, Paty JA. Moderators of naltrexone's effects on drinking, urge, and alcohol effects in non-treatment-seeking heavy drinkers in the natural environment. *Alcohol Clin Exp Res.*, 2008, 32, 58-66.

Tuchman E. Women and addiction: the importance of gender issues in substance abuse research. *J Addict Dis.* 2010;29:127-38

Uhart M, Chong RY, Oswald L, Lin PI, Wand GS. Gender differences in hypothalamic-pituitary-adrenal (HPA) axis reactivity. *Psychoneuroendocrinology* 2006;31:642-652.

Uhart M, Wand GS. Stress, alcohol and drug interaction: an update of human research. *Addict Biol.* 2009 Jan;14(1):43-64.

Vachon CM, Cerhan JR, Vierkant RA, Soller TA. Investigation of an interaction of alcohol intake and family history on breast cancer risk in the Minnesota Breast Cancer Family Study. *Cancer* 2001; 92(2):240-248.

Valentino RJ, Van Bockstaele E. Opposing regulation of the locus coeruleus by corticotropin-releasing factor and opioids. Potential for reciprocal interactions between stress and opioid sensitivity. *Psychopharmacology (Berl)* 2001;158:331-342

Van den Brink W. Evidence-based pharmacological treatment of substance use disorders and pathological gambling. *Curr Drug Abuse Rev.* 2012 Mar;5(1):3-31.

Verster JC, Roth T. Gender differences in highway driving performance after administration of sleep medication: a review of the literature. *Traffic Inj Prev.* 2012;13(3):286-92.

Volpicelli JR. Naltrexone in alcohol dependence. *Lancet.* 1995 Aug 19;346(8973):456.

Weinberger AH, Maciejewski PK, McKee SA, Reutenauer EL, Mazure CM. Gender differences in associations between lifetime alcohol, depression, panic disorder, and posttraumatic stress disorder and tobacco withdrawal. *Am J Addict.* 2009 Mar-Apr;18(2):140-7.

Wilsnack RW, Wilsnack SC, Kristjanson AF, et al Gender and alcohol consumption: patterns from the multinational GENACIS project. *Addiction.* 2009;104:1487-500.

Wiren KM, Hashimoto JG, Alele PE, Devaud LL, Price KL, Middaugh LD, Grant KA, Finn DA. Impact of sex: determination of alcohol neuroadaptation and reinforcement. *Alcohol Clin Exp Res.* 2006 Feb;30(2):233-42.

Witbrodt J, Delucchi K. Do women differ from men on Alcoholics Anonymous participation and abstinence? A multi-wave analysis of treatment seekers. *Alcohol Clin Exp Res.* 2011 Dec;35(12):2231-41.

Wittchen HU, Jacobi F, Rehm J, Gustavsson A, Svensson M, Jönsson B, Olesen J, Allgulander C, Alonso J, Faravelli C, Fratiglioni L, Jennum P, Lieb R, Maercker A, van Os J, Preisig M, Salvador-Carulla L, Simon R, Steinhausen HC. The size and burden of mental disorders and other disorders of the brain in Europe 2010. *Eur Neuropsychopharmacol.* 2011 Sep;21(9):655-79.

Wright C, Moore RD. Disulfiram treatment of alcoholism. *Am J Med.* 1990 Jun;88(6):647-55.

Zhang FF, Cardarelli R, Carroll J, Fulda KG, Kaur M, Gonzalez K, et al. (2011a). Significant differences in global genomic DNA methylation by gender and race/ethnicity in peripheral blood. *Epigenetics* 6: 623-629.

Zubieta JK, Dannals RF, Frost JJ. Gender and age influences on human brain mu-opioid receptor binding measured by PET. *Am J Psychiatry.* 1999 Jun;156(6):842-8.

Zubieta JK, Smith YR, Bueller JA, Xu Y, Kilbourn MR, Jewett DM, Meyer CR, Koeppe RA, Stohler CS. mu-opioid receptor-mediated antinociceptive responses differ in men and women. *J Neurosci.* 2002 Jun 15;22(12):5100-7.

Former Soviet Union immigrant women: drug use profiles and special needs

Richard Isralowitz (1), Alexander Reznik (2)

(1) Director and Professor at Regional Alcohol and Drug Abuse Research Center Ben Gurion University, Beer Sheva, Israel

(2) Senior Research Associate, Regional Alcohol and Drug Abuse Research Center Ben Gurion University, Beer Sheva, Israel

Introduction

Illicit drugs, alcohol and other addictive substances including those medically prescribed are all drugs. The use of such drugs is not a new phenomenon but one that takes on meaning and importance in relation to its social context that varies over time and location – for immigrants meaning country of origin and place of current residence. The history of the drug and its use, the social strata of society that uses it, the kinds of situations in which it is used, and the publicity and public opinion about it may all be included in the definition of a drug's context that depends on social, cultural and objective factors. The focus of this chapter is on immigrant female drug users from the former Soviet Union (FSU) – their profiles and special needs. Details about drug use, health conditions, immigration patterns, acculturation and comparative research are provided contributing to thoughts about prevention and treatment for this underserved population.

Drug Use

Millions of people left the former Soviet Union (FSU) to settle in western countries when exit policies were liberalized in the late 1980's. These immigrants came from an environment with one of the highest rates of drug use in the world (Pridemore, 2002). The vast majority of FSU immigrants are from Russia and Ukraine. Reports on drug use there during the peak period of emigration shows.

Russia

Russia was a transit country for heroin and opium, most of which comes from Afghanistan, and the majority of which is destined for Europe. Because of the porous nature of the Russian boarder with Central Asia and the country's limited support for law enforcement, it is clear that Russia was ill-equipped to handle the inundation of Afghan heroin into the country. Russia was a consumer country of

heroin due to the high availability and low prices. Despite the low cost of heroin, addicts resorted to criminal activity to support their addiction. Production of amphetamines and synthetics for domestic consumption was minor but increased along with designer “club” drugs among Russia’s youth. Drug abuse within Russia was a matter of concern for national health officials. In the beginning of 2003, there were 340,000 registered drug addicts in Russia. This figure only reflected addicts known to health officials. The number of drug users in Russia was at that time estimated to be between 3 and 4 million people. The majority of the drug users were under age 30 and approximately 30 percent were heroin addicts.

Presently, Russia is the largest single market for Afghan-origin heroin. There are 2.5 million drug addicts and over 5.1 million drug users; and, HIV infection rates are up to 61 percent among drug users in some regions of the country. Officials estimate that there are 80,000 new drug users each year; and, more than 30,000 people die annually of drug overdoses and another 70,000 deaths per year are drug-related in Russia (UNODC, 2011; RIA Novosti, 2012). Russia is also a significant market for opium, hashish, marijuana, synthetics and other dangerous illegal substances. Although not as significant as the use of heroin, opium and hashish, there is growing concern about the use of synthetics and other pharmacological narcotics that are inexpensive and increasingly available. One such synthetic is desomorphine known as “krokodil” that first appeared on the Russian market in 2003. More toxic than heroin, “krokodil” is easily produced at home by mixing codeine-based medications, iodine and red phosphorus from a match box (Gahr et al., 2012).

Ukraine

The number of officially registered drug addicts in Ukraine exceeded 199,000 including over 4,000 teenagers with over 18,000 new registrations in 2003. Sixty-eight percent of registered drug users were under 30 years of age; nearly 25 percent were women, and over 78 percent were unemployed. Estimates of unregistered drug abusers varied widely, up to one million reported by local NGOs in press reports. About 15,000 criminal offenses were committed annually by drug addicts (US Department of State, 2004).

Ukraine is not a major drug producing country. However, it is an important transit country for drugs such as heroin, opium “poppy straw”, cannabis, and methamphetamine. Heroin is trafficked from Central Asia (primarily Afghanistan) and comes into Ukraine mostly through Russia, the Caucasus and Turkey. In 2010, there were 156,300 registered addicts. However, various experts estimate that the total number of actual drug addicts in Ukraine range from 300,000 to 500,000. Drug-related deaths over the last few years have averaged 1,000 per year according to Ukrainian health authorities (US Department of State, 2012).

Infectious diseases

It is widely acknowledged that the spread of HIV/AIDS as well as hepatitis B, C and other blood-borne viruses is linked, in part, to injecting drugs. Eastern Europe and Central Asia is the only region where HIV prevalence clearly remains

on the rise; HIV has almost tripled since 2000 and reached an estimated 1.4 million people in 2009. The epidemic in the region is concentrated mainly among drug users, sex workers, their sexual partners and, to a much lesser extent, men who have sex with men. The following facts are noteworthy:

- AIDS-related deaths continue to rise in the region; an estimated 76,000 people died from AIDS-related causes in 2009 compared to 18,000 in 2000, a four-fold increase;
- the Russian Federation and Ukraine together account for nearly 90% of newly reported HIV infections;
- Ukraine has the highest adult HIV prevalence in all of Europe and Central Asia at 1.1%. Annual HIV diagnosis in Ukraine has more than doubled since 2001;
- in the Russian Federation more than one-third (37%) of the country's 1.8 million injecting drug users are living with HIV; and,
- as the HIV epidemic spreads from people who inject drugs (predominately male) to their sexual partners, the proportion of women living with HIV in the region is growing. By 2009 women represented 45% of people living with HIV in the Ukraine compared to 37% in 1999 (UNAIDS, 2012).

Both hepatitis B virus (HBV) and hepatitis C virus (HCV) are highly prevalent among injection drug users. Estimated prevalence of hepatitis infection is more than 50% among people who inject drugs in most countries. The largest populations of infected people who inject drugs is in the Russian Federation (73% estimated prevalence). Sharing contaminated syringes is the most common method of infection transmission (CDC, 2012; WHO, 2012; Medscape Today, 2012).

Among infectious diseases, after HIV/AIDS, tuberculosis (TB) is the second leading killer in the world. HIV and TB are closely linked and up to 50 percent of those people living with HIV can expect to develop TB. TB is most prevalent in crowded low-income areas with substandard health conditions and it is linked to drug users and alcoholics who have a history of crime, imprisonment and unemployment (Migliori & Ambrosetti, 1998). Drug users are two to six times more likely to contract TB than nonusers (NIDA, 1999). Reported TB rates for correctional system populations have been 10–100 times higher than rates for the local civilian populations, and TB outbreaks with a high number of TB multidrug-resistant cases have been documented. Prisons, heavy populated with drug offenders, are known as social and sanitary pathology reservoirs in which TB is often associated with chronic infectious diseases caused by HIV, HBV, HCV. HCV prevalence among inmates is 30%–40%, which is higher than that in the general population and is related to injection drug use (CDC, 2012).

In the former Soviet Union deteriorating conditions including poverty, unemployment, inadequate hygiene and health care, a lack of preventive health education and poorly ventilated prisons where inmates fall ill have provided fertile ground for the rise of injecting drug use, the spread of HIV and tuberculosis referred to as “Ebola with wings” (Isralowitz, 2004; Malinowska-Sempruch, Hoover & Alexandrova, 2003).

Immigration from the former Soviet Union

Since 1989, with the fall of the Soviet Union and removal of exit barriers, over a million people emigrated from the former Soviet Union to the United States, Western Europe and Israel. From 1989-1998 the Israeli population of 4.5 million rose about 20 percent primarily from the nearly one million Soviet immigrants, mostly from Russia and the Ukraine, who entered the country. A large proportion of the Russian speaking immigrants had training and education in a variety of technical and professional fields; and, success was an important component of their worldview and culture (Philippov, 2010). However, there were immigrants who arrived in Israel with drug abuse problems and others became addicted during the absorption process (Isralowitz et al., 2007). Presently, Russian speaking immigrants are 13 percent of the Israel population but about 25 percent of the illicit drug users in the country (Isralowitz & Borkin, 2002). Figure 1 and Table 1 provide information about FSU immigrant female drug user immigration patterns and related characteristics to the southern region of the country, the Negev.

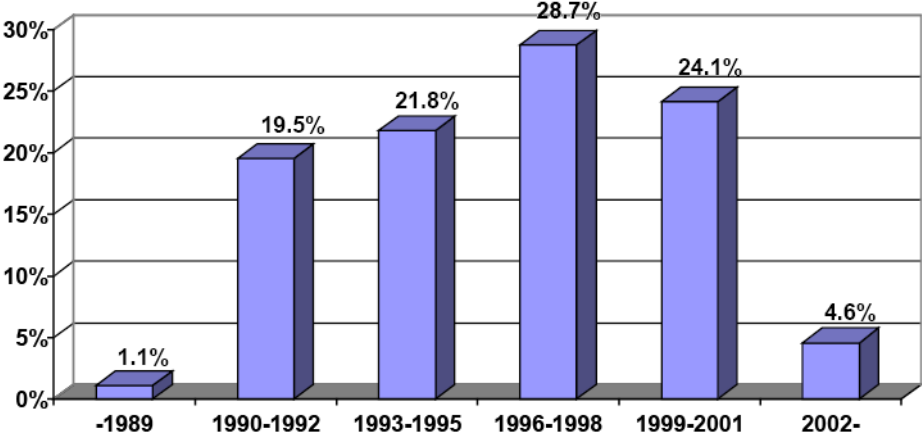


Figure 1: FSU Female Drug Users: Immigration Rates to the Negev – Israel

As noted above, FSU immigrants came from an environment that has one of the poorest health indicators and lowest life expectancies in the developed world. Such factors include alcohol consumption, smoking, nutrition, and others (Cockerham, 1997; Hofmann, 2012). It is logical to believe there are uniform data about FSU immigrant health issues in the United States, Israel and other absorbing countries. However, a review of professional literature reveals scant information about drug use, risk behaviors, police reports and service utilization (Guarino et al., 2012; Isralowitz, Straussner & Rosenblum, 2006; Isralowitz et al., 2007; Isralowitz, Reznik & Peleg, 2013). According to the American Medical Association, “The health picture of the FSU immigrant population has been in the early stage of development” (Meyerovich, 2003). For example in the United States,

national and state government data regarding FSU immigrants in treatment are not available because country of origin and/or other identifying factors are not recorded. Some unpublished numbers are available based on the U S National Household Survey on Drug Abuse of lifetime and current, last 30 day, illicit drug use among persons aged 18 or older who were born in the former Soviet Union. Nevertheless, few conclusions can be ascertained because “many estimates are suppressed due to the poor precision results from the small sample sizes” of FSU immigrants (personal correspondence with J. Gfroerer, Office of Applied Studies, US Substance Abuse and Mental Health Services Administration. April 26 and May 11, 2004).

	FSU female (N=87)⁽¹⁾
FSU countries origin, % (n)	
Russia	29.9% (26)
Ukraine	41.4% (36)
Other (Moldova, Georgia, Uzbekistan, etc.)	28.7% (25)
Mean age of immigration (range; SD)	21,8 (9-40; 7.1)
Conditions of Immigration, % (n)	
Alone	19.8 (17)
With partner and with/without children	23.3 (20)
With parent(s) and/or other family members	45.3 (39)
Other (e.g. with friends)	11.6 (10)

Table 1: FSU Female Drug Users: Immigration Related Characteristics
(1) up to 2 subjects with missing data on one or more variables

Acculturation and drug use perspectives: a brief review

A number of conceptual models of the relationship between acculturation and psychosocial behavior exist. For example, the acculturative stress model suggests that cultural conflict at the place of destination and lack of social and economic resources for coping may result in migrant drug use as a maladaptive coping mechanism (Cheung, 1990-91; Johnson, 1996; Mirdal, 1984). In addition, the level of acculturative stress that an individual experiences may be moderated by factors such as socioeconomic status, discrimination, language adequacy, social support, gender, and skin color (Cortes et al., 2003; Hovey, 2000; Miranda & Matheny, 2000; Ward & Rana-Deuba, 1999). In contrast, an assimilation or

acculturation model suggests that as immigrants adopt the customs and practices of the host society, their patterns of alcohol and drug use begin to parallel those of their new environment (Amaro et al., 1990; Fernandez-Pol et al., 1985; Gil, Wagner & Vega, 2000; Velez & Ungemack, 1989). Linear models of stress adaptation and acculturation have been challenged by other researchers who suggest that bicultural immigrants (i.e., those who are able to adapt to their new social environment while retaining important elements of their native culture) are less likely to develop drug use habits (Tucker, 1985; Johnson, 1996; Oetting & Beauvais, 1991; Cortes, et al., 2003).

Current trends favor models and instruments that view and assess acculturation as a pliable process in which individuals do not necessarily relinquish the values, behaviors and attitudes prescribed by their culture of origin in order to adopt those of the host culture (De La Rosa, Vega & Radish 2000).

Difficulties with the process of acculturation have been linked to the development of emotional and behavioral problems including mental illness, delinquency, and alcohol and drug abuse (Oetting & Beauvais, 1991; Rogler, Cortes & Malgady, 1991; Straussner, 2002; Cortes et al., 2003) state that alcohol and drug use emerges as a coping mechanism to mitigate the stresses that immigrants encounter in the host society.

This dynamic and highly complex process can lead to personal stress and interpersonal conflicts (Akhtar, 1995; Gaw, 1993; Lu, Lim & Mezzich, 1995; Sandhu, Portes, & McPhee, 1996). FSU immigrants, regardless of the absorbing country, have faced the challenge of acculturation and there is a lack of information about those who are drug users (Isralowitz, 2002; Isralowitz et al, 2007).

FSU immigrant female drug users: profiles and needs

Considerable progress has been made toward understanding drug use; however, the problem has been sorely neglected in women (Leshner, 1998; Isralowitz & Borkin, 2002). Men and women use drugs for different reasons. Females are more vulnerable to abuse and addiction because they become more dependent on drugs faster and suffer the consequences sooner than males. Generally, female drug users who have been studied are about 20% of the heroin-addicted population receiving treatment. Female addicts tend to sustain their addiction through illegal income-earning activities such as prostitution, and/or their partners provide them with drugs or supply the money necessary to purchase drugs. Regardless how women support their addiction they tend to have little interest in going through processes of detoxification and treatment. It has been reported that women who abuse drugs have problems related to co-dependency, incest, physical and sexual abuse, victimization, sexuality and relations with significant others (Bush & Kraft, 2001; Bryant, Eliach & Green, 1990; Hurley, 1991; Gil-Rivas, Fiorentine & Anglin 1996; Isralowitz & Reznik, 2009; Swett, Cohen & Surrey, 1991). Also, female drug users cite a particular stressful event as a reason for initiating the use of harmful drugs; and, many report being victims of childhood physical and/or sexual abuse. Socioeconomic

factors including those related to transition and acculturation may be attributed to drug abuse as well (Bush & Kraft, 2001; Isralowitz, 2003; Isralowitz & Bar Hamburger, 2002; Olsen & Pavetti, 1996; Straussner & Brown, 2002).

Women tend to begin abusing drugs later than men and they are more likely to have a co-existing psychiatric problem, especially depression, as well as a greater history of suicide attempts and hostility. Although women drink and use illegal drugs less frequently than men, they are more likely to use prescribed psychoactive drugs (Byqvist, 1999; Moras, 1998; Petry & Bickel, 2000; Roth, 1991; Isralowitz, Reznik & Straussner, 2011). Health and family problems are factors that motivate women to enter treatment. Among those that seek treatment, many are likely to have an alcoholic or addicted male partner or to be divorced or separated. Women with a drug problem often lack education, job experience, self-esteem and assertiveness skills making it difficult for them to manage the complex treatment and assistance network (Moras, 1998; Straussner & Brown 2002). Also, research shows many drug-using women do not seek treatment because they fear not being able to take care of or keep their children, reprisal from their spouses or boyfriends, and punishment from authorities in the community (Isralowitz & Borkin, 2002).

Research methods

Since 1995, the Regional Alcohol and Drug Abuse Research (RADAR) Center, Ben Gurion University, Israel has been researching drug use among FSU immigrants, their background characteristics, attitudes and behavior. For the most part, the RADAR Center's sampling efforts have been geared to generating "useable knowledge" about life time drug users for prevention and treatment purposes. The sites where data have been collected are similar to those found nation-wide; and, in all information collecting procedures, confidentiality and the human rights of those interviewed have been protected.

Instruments and measures

The primary data collection tools used by the RADAR Center have been the Addiction Severity Index (ASI), 5th Edition; the Substance Use Survey Institute (SUSI) developed by the RADAR Center; and the Short Acculturation Scale (SAS). Approximately 1,000 FSU immigrant drug users have been interviewed since 1995. The following is a brief description of the instruments being used.

Addiction Severity Index (ASI)

The ASI is a structured interview that assesses problem severity in seven domains (alcohol, drug, medical, employment, legal, family/social, and psychiatric) and has been validated with diverse populations in a wide variety of settings (average Cronbach Alpha score 0.71). Based on information collected from a client beginning treatment, a composite score can be computed for each domain to indicate severity in that area; scores range from 0 to 1 with higher scores indicating greater severity (McLellan et al., 1992; McGahan et al., 1986). The Russian language version of the ASI 5th was used by the RADAR Center (EMCDDA, nd).

Substance Use Survey Index (SUSI)

This data collection instrument consists of 58 questions about personal background, drug use patterns and related problems including HIV/AIDS, hepatitis C (HCV) and tuberculosis (TB). The instrument was developed with grant support from the US Agency for International Development – Middle East Regional Cooperation Program and input from experts affiliated with universities, government agencies and regional non-profit organizations. Prepared in English, the questionnaire has been translated to Hebrew and Russian languages. The questionnaire is valid and reliable (Cronbach Alpha score 0.88).

Short Acculturation Scale (SAS)

The Short Acculturation Scale (SAS) is used to estimate acculturation (Marin et al., 1987; Zane & Mak, 2003). This instrument assesses an immigrant's use of a new language in everyday life. The SAS is a reliable and valid questionnaire; it was translated by the RADAR Center to Russian and found to be reliable (Cronbach Alpha score 0.91). SAS scores are from 0 (low level of acculturation) to 1 (high level of acculturation) meaning the use of Hebrew language.

FSU immigrant female drug users: profile and special needs highlights

Country of origin differences

Significant background characteristics exist among FSU and Israeli origin women in drug abuse treatment (Isralowitz, 2003; Isralowitz & Bar Hamburger, 2002; Isralowitz & Borkin, 2002; Isralowitz & Reznik, 2009). FSU females tend to be younger, less likely to be Jewish – a status that affects government benefits to immigrants, more likely to be married, better prepared for work through specialized training, and employed than their Israeli counterparts. Immigrant and native-born women report similar rates of being victims of sexual and physical abuse (see Table 2). FSU women report more chronic medical problems including HIV/AIDS and hepatitis C (see Table 3). Patterns of alcohol and opiate use are higher among FSU women; Israeli-born women use more cocaine and sedatives (see Figure 2). FSU women prefer shorter forms of treatment intervention such as detoxification and are more inclined to use alcohol and other drugs while receiving treatment (see Table 4). Additional findings show FSU women have a greater concern about their personal health and maintaining custody of their children (Isralowitz, 2003; Isralowitz & Bar Hamburger, 2002; Isralowitz & Borkin, 2002).

Based on ASI composite scores of the 7 domains used, no differences were found among Israeli and FSU women in drug treatment (Table 5).

	Origin	
	Native Female (n =76) ⁽¹⁾	FSU Female (n =87) ⁽¹⁾
Mean age (range; SD)	34.7** (19-60; 10.2)	31.0** (18-53; 7.6)
Mean years of education (range; SD)	10.2 (2-12; 1.9)	10.4 (3-16; 2.3)
High School Diploma	35.5 (27)**	56.3 (49)**
Academic Degree	2.6 (2)	10.3 (9)
Professional, Trade or Skill	47.4 (36)**	67.8 (59)**
Employment status⁽²⁾; % (n)	***	***
Employed (full- or part-time)	15.8 (12)	48.3 (42)
Unemployed	68.4 (52)	41.4 (36)
Not in the labor force	15.8 (12)	10.3 (9)
Married, % (n)	20.5 (15)**	43.8 (35)**
Living Arrangements⁽³⁾; % (n)	**	**
With sex partner & children	41.3 (30)	47.3 (40)
With parents/family	28.6 (21)	27.0 (23)
No stable arrangement	15.9 (12)	12.2 (10)
Other arrangement	14.2 (10)	13.5 (12)
Jewish, % (n)	94.7 (71)***	47.1 (40)***
Legal status, % (n)		
None	88.9 (66)	94.6 (78)
Probation or parole	19.0 (14)	13.5 (11)
Convictions	56.9 (41)	43.8 (37)
Prison	42.7 (32)**	23.0 (20)**
Victims of physical abuse, % (n)	65.6 (48)	58.9 (49)
Victims of sexual abuse, % (n)	53.2 (39)	63.5 (53)
Mean age of (first) sexual abuse (range, SD)	13.8 (5-22; 5.5)	14.2 (6-22; 3.8)

Table 2: FSU and Israeli-Born Female: Background Characteristics

*<.05, **<.001; comparison of FSU and Israeli origin women using t-test for means or chi square for percentages

(1) up to 2 subjects in each group missing data on some variables

(2) significant differences in employment status by origin (chi square for 3 x 2 table)

(3) significant differences in living arrangements by origin (chi square for 4 x 2 table)

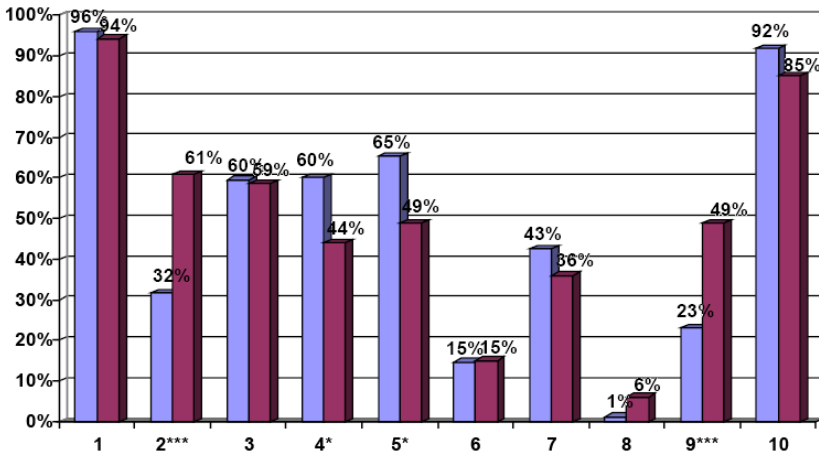


Figure 2: FSU and Israeli-Born Female Lifetime Drug Use Rates

■ Israeli Female
■ FSU Female

1. Heroin
2. Alcohol
3. Cannabis
4. Sedatives
5. Cocaine
6. Amphetamine
7. Hallucinogens
8. Inhalants
9. Opiates
10. Poly drugs use

*<.05, ***<.001; comparison of FSU and Israeli origin women using chi square for percentages

	Origin	
	Native Female (n =76) ⁽¹⁾	FSU Female (n =87) ⁽¹⁾
Chronic Medical Problems, % (n)	52.6 (40)**	76.7 (66)**
Hepatitis C, % (n)	35.5 (27)**	58.6 (51)**
HIV/AIDS, % (n)	1.3 (1)*	9.3 (8)*
Tuberculosis, % (n)	0.0 (0)	1.2 (1)

Table 3: FSU and Israeli-Born Female: Medical Status and Infectious Disease Rates

*<.05, **<.01; comparison of FSU and Israeli origin women using chi square test for percentages
 (1) up to 2 subjects in each group with missing data on one or more variables

Means (SD)	Origin	
	Native Female (n =76) ⁽¹⁾	FSU Female (n =87) ⁽¹⁾
Heroin Use, % (n)	95.9 (71)	94.3 (82)
Mean Years of Use	10.1 (6.0) ^{***}	4.3 (2.5) ^{***}
Mean # Days Used Past 30 Days	24.1 (9.7) ^{**}	18.4 (10.3) ^{**}
Use by IV Injection, %	65.8 (48) ^{**}	86.6 (71) ^{**}
Alcohol Use, % (n)	31.6 (24) ^{***}	60.9 (53) ^{***}
Mean Years of Use		
Mean # Days Used in Past 30 Days	35.5 (27) ^{**}	56.3 (49) ^{**}
Mean Years of Use to intoxication	2.6 (2)	10.3 (9)
Mean # Days Intoxicated in Past 30	47.4 (36) ^{**}	67.8 (59) ^{**}
Cannabis Use, % (n)	59.5 (44)	58.6 (51)
Mean Years of Use	8.0 (8.3)	6.9 (5.9)
Mean # Days Used in Past 30 Days	13.5 (13.1)	13.1 (7.8)
Sedatives Use, % (n)	60.0 (42) [*]	44.0 (37) [*]
Mean Years of Use	5.8 (7.6)	4.1 (4.0)
Mean # Days Used in Past 30 Days	20.4 (11.8)	15.9 (11.2)
Cocaine Use, % (n)	65.3 (47) [*]	48.8 (42) [*]
Mean Years of Use	3.7 (4.0)	2.4 (1.9)
Mean # Days Used in Past 30 Days	11.3 (13.1)	11.4 (8.9)
Amphetamine Use, % (n)	14.7 (11)	15.1 (13)
Mean Years of Use	5.8 (3.4) [*]	2.8 (2.1) [*]
Mean # Days Used in Past 30 Days	-	1.5 (0.7)
Hallucinogens Use, % (n)	42.5 (31)	36.0 (31)
Mean Years of Use	3.4 (3.3)	2.9 (2.1)
Mean # Days Used in Past 30 Days	9.0 (13.0)	1.8 (1.4)
Inhalants Use, % (n)	1.3 (1)	6.0 (5)
Mean Years of Use	1.0 (0.0)	2.0 (1.0)
Mean # Days Used in Past 30 Days	-	-
Other Opiate Use, % (n)	23.0 (17) ^{***}	48.8 (42) ^{***}
Mean Years of Use	5.5 (4.7)	6.3 (5.2)
Mean # Days Used in Past 30 Days	15.1 (12.3) [*]	6.1 (7.6) [*]
Poly drugs Use, % (n)	91.9 (67)	85.1 (72)
Mean Years Using > 1 Substance/Day	6.8 (6.3)	5.8 (4.7)
Mean # Days Using > 1 Substance/Day	21.1 (11.6) ^{**}	15.5(10.4) ^{**}
Drug treatment⁽²⁾; % (n)	***	***
Detox only	27.5 (20)	58.1 (43)
Detox and other	54.8 (41)	24.3 (18)
Never once	17.7 (13)	17.6 (13)
Clean of heroin but using alcohol while in treatment, % (n)	11.9 (8) ^{***}	42.5 (35) ^{***}
Clean of heroin but using other drugs while in treatment, % (n)	31.1 (23) [*]	48.8 (42) [*]
Treatment for FSU addicts would be better if there were special units only for them	33.3 (25) ^{***}	63.0 (53) ^{***}

Table 4: FSU and Israeli-Born Female Alcohol and Drug Use Patterns

*<.05, **<.01, ***<.001; comparison of FSU and Israeli origin women using t-test for means or chi square for percentages

1 up to 2 subjects in each group with missing data on one or more variables

2 significant differences in drug treatment by origin (from chi square for 3 x 2 table)

ASI Scores, (SD)	Origin	
	Native Female (n =76) ⁽¹⁾	FSU Female (n =87) ⁽¹⁾
Alcohol	0.07 (0.20)	0.06 (0.13)
Drug	0.28 (0.17)	0.26 (0.13)
Medical	0.26 (.029)	0.25 (0.27)
Employment	0.90 (0.22)	0.90 (0.18)
Legal	0.17 (0.21)	0.22 (0.27)
Family/Social	0.29 (0.28)	0.24 (0.21)
Psychiatric	0.34 (0.26)	0.29 (0.21)

Table 5: FSU and Israeli-Born Female ASI Composites Scores
1 up to 2 subjects in each group with missing data on one or more variables

Gender differences

A comparison of FSU female and male drug users shows females tend to be: younger, married or living with a partner; not Jewish (as noted above); less likely to have a criminal record resulting in a conviction, incarceration and/or parole; and, more sexually abused (see Table 6). Women report more chronic illness; however, their level of HIV/HCV/TB infection is similar to males (see Table 7). Patterns of heroin, alcohol and other drug use are similar among females and males; cannabis use is higher among males and cocaine use higher among females (Table 8; Figure 3). Also, females are more likely than males to prefer short-term detoxification (only) as a treatment intervention.

ASI composite score results show a significant difference between women and men regarding the employment domain (i.e., women have more employment related problems - see Table 9).

Research shows drug use interferes with acculturation in the host country (Grusser et al, 2004). A comparison of FSU drug users based on gender status shows women tend to be more acculturated based on their use of Hebrew language (see Table 10).

Table 11 shows FSU male and female drug use before and after immigration and its impact on acculturation. Drug use appears to affect acculturation. Those who use drugs before immigration, regardless of gender status, tend to be less acculturated. Additional information shows a possible link between acculturation and the type of treatment preferred by addicts regardless of gender status (see Table 12).

Gender		
Means (SD)	Male (n =454)⁽¹⁾	Female (n =87)⁽¹⁾
Mean age (range; SD)	33.8** (15-78; 9.6)	31.0** (18-53; 7.6)
Mean years of education (range; SD)	10.1 (1-18; 2.1)	10.4 (3-16; 2.3)
High School Diploma	56.1 (251)	56.3 (49)
Academic Degree	6.1 (27)	10.3 (9)
Professional, Trade or Skill	79.5 (350)*	67.8 (59)*
Employment status⁽²⁾, % (n)	***	***
Employed (full- or part-time)	48.1 (217)	48.3 (42)
Unemployed	33.2 (149)	41.4 (36)
Not in the labor force	18.7 (84)	10.3 (9)
Married, % (n)	24.6 (106)***	43.8 (35)***
Living Arrangements⁽³⁾, % (n)	**	**
With sex partner & children	25.0 (112)	47.3 (40)
With parents/family	39.2 (176)	27.0 (23)
No stable arrangement	17.1 (77)	12.2 (10)
Other arrangement	18.7 (84)	13.5 (12)
Jewish, % (n)	70.8 (320)***	47.1 (40)***
Legal status, % (n)		
None	81.6 (365)**	94.6 (78)**
Probation or parole	35.9 (160)***	13.5 (11)***
Convictions	79.2 (294)***	43.8 (32)***
Prison	70.9 (319)***	23.0 (20)***
Victims of physical abuse, % (n)	46.6 (208)	58.9 (49)
Victims of sexual abuse, % (n)	4.0 (18)***	63.5 (53)***
Mean age of (first) sexual abuse (range, SD)	-	14.2 (6-22; 3.8)

Table 6: FSU Female and Male Background Characteristics

*<.05, **<.001; comparison of FSU females and males women using t-test for means or chi square for percentages

(1) up to 6 subjects in each group missing data on some variables

(2) significant differences in employment status by gender (from chi square for 3 x 2 table)

(3) significant differences in living arrangements by gender (chi square for 4 x 2 table)

Gender		
	Male (n =454)⁽¹⁾	Female (n =87)⁽¹⁾
Chronic Medical Problems, % (n)	52.6 (40)**	76.7 (66)**
Hepatitis C, % (n)	67.3 (304)	58.6 (51)
HIV/AIDS, % (n)	4.4 (20)	9.3 (8)
Tuberculosis, % (n)	4.0 (18)	1.2 (1)

Table 7: FSU Female and Male Medical Status and Infectious Disease Rates

**<.001; comparison of FSU Females and Males using chi square for percentages

(1) up to 6 subjects in each group with missing data on one or more variables

Means (SD)	Gender	
	Male (n =454) ⁽¹⁾	Female (n =87) ⁽¹⁾
Heroin Use, % (n)	91.6 (412)	94.3 (82)
Mean Years of Use	5.8 (4.8)*	4.3 (2.5)*
Mean # Days Used Past 30 Days	20.2 (10.0)	18.4 (10.3)
Use by IV Injection, %	88.4 (397)	86.6 (71)
Alcohol Use, % (n)	66.6 (299)	60.9 (53)
Mean Years of Use	11.8 (7.7)	9.9 (7.2)
Mean # Days Used in Past 30 Days	6.4 (7.7)	7.9 (10.3)
Mean Years of Use to intoxication	7.6 (7.0)	6.0 (6.8)
Mean # Days Intoxicated in Past 30	7.6 (9.1)	6.5 (8.8)
Cannabis Use, % (n)	84.4 (379)***	58.6 (51)***
Mean Years of Use	10.2 (7.8)**	6.9 (5.9)**
Mean # Days Used in Past 30 Days	10.8 (10.2)	13.1 (7.8)
Sedatives Use, % (n)	39.8 (174)	44.0 (37)
Mean Years of Use	4.6 (5.7)	4.1 (4.0)
Mean # Days Used in Past 30 Days	14.2 (12.5)	15.9 (11.2)
Cocaine Use, % (n)	33.1 (143)**	48.8 (42)**
Mean Years of Use	3.2 (3.8)	2.4 (1.9)
Mean # Days Used in Past 30 Days	6.6 (8.0)*	11.4 (8.9)*
Amphetamine Use, % (n)	15.5 (68)	15.1 (13)
Mean Years of Use	3.0 (3.5)	2.8 (2.1)
Mean # Days Used in Past 30 Days	10.5 (13.4)	1.5 (0.7)
Hallucinogens Use, % (n)	27.8 (123)	36.0 (31)
Mean Years of Use	3.1 (2.8)	2.9 (2.1)
Mean # Days Used in Past 30 Days	3.5 (4.4)	1.8 (1.4)
Inhalants Use, % (n)	6.6 (29)	6.0 (5)
Mean Years of Use	1.4 (0.9)	2.0 (1.0)
Mean # Days Used in Past 30 Days	-	-
Other Opiate Use, % (n)	49.8 (217)	48.8 (42)
Mean Years of Use	8.3 (7.2)	6.3 (5.2)
Mean # Days Used in Past 30 Days	9.0 (9.4)	6.1 (7.6)
Poly drugs Use, % (n)	86.3 (380)	85.1 (72)
Mean Years Using > 1 Substance/Day	8.8 (6.9)***	5.8 (4.7)***
Mean # Days Using > 1 Substance/Day	14.0 (10.3)	15.5 (10.4)
Drug treatment⁽²⁾; % (n)	***	***
Detox only	35.5 (134)	58.1 (43)
Detox and other	36.1 (136)	24.3 (18)
Never once	28.4 (107)	17.6 (13)
Clean of heroin but using alcohol while in treatment, % (n)	64.4 (242)***	42.5 (35) ***
Clean of heroin but using other drugs while in treatment, % (n)	66.8 (252)**	48.8 (42)**
Treatment for FSU addicts would be better if there were special units only for them	65.7 (294)	63.0 (53)

Table 8: FSU Female and Male Alcohol and Drug Use Patterns

*<.05, **<.01, ***<.001; comparison of FSU Females and Males using t-test for means or chi square for percentages

(1) up to 6 subjects in each group with missing data on one or more variables

(2) significant differences in drug treatment by gender (from chi square for 3 x 2 table)

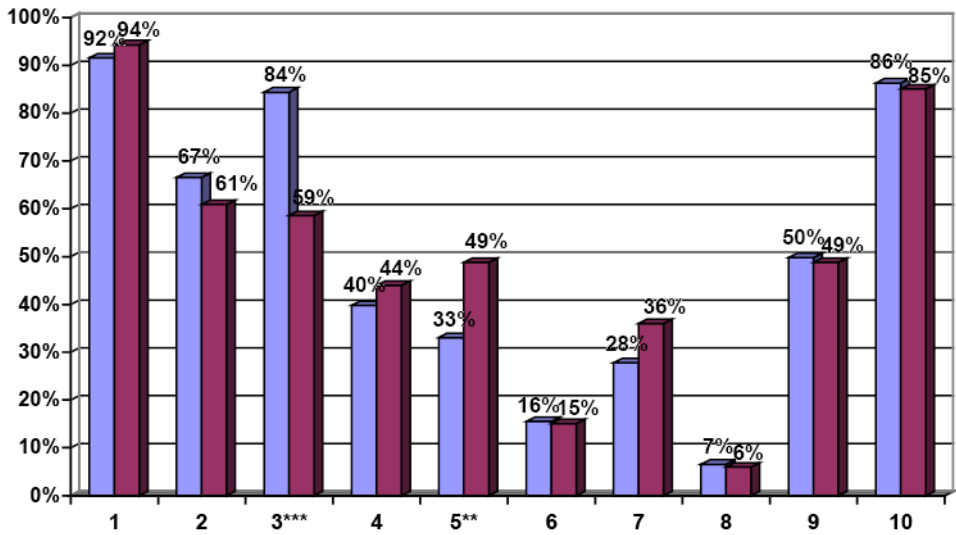


Figure 3: FSU Female and Male Lifetime Drug Use Rates

■ FSU Male
■ FSU Female

1. Heroin
2. Alcohol
3. Cannabis
4. Sedatives
5. Cocaine
6. Amphetamine
7. Hallucinogens
8. Inhalants
9. Opiates
10. Poly drugs use

<.01, *<.001; comparison of FSU Females and Males using chi square for percentages

ASI Composites Scores, Mean (SD)	Male (n =454)⁽¹⁾	Female (n =87)⁽¹⁾
Alcohol	0.06 (0.12)	0.06 (0.13)
Drug	0.23 (0.14)	0.26 (0.13)
Medical	0.22 (0.27)	0.25 (0.27)
Employment	0.80 (0.25)***	0.90 (0.18)***
Legal	0.28 (0.26)	0.22 (0.27)
Family/Social	0.28 (0.24)	0.24 (0.21)
Psychiatric	0.26 (0.21)	0.29 (0.21)

Table 9: FSU Female and Male ASI Composites Scores

***<.001; comparison of FSU Females and Males using t-test for means

(1) up to 6 subjects in each group with missing data on one or more variables

***<.001; comparison of FSU Females and Males using t-test for means

(1) up to 2 subjects in each group with missing data on one or more variables

SAS	Male (n=454)1	Female (n=87)1	Total (n=541)
Mean (range; SD)	0.23*** (0.0-0.69; 0.14)	0.34*** (0.08-0.73; 0.12)	0.26 (0.0-0.73; .14)

Table 10: Short Acculturation Scale Index

SAS	Male		Female		Total	
	Use drugs before immigration	Didn't use drugs before immigration	Use drugs before immigration	Didn't use drugs before immigration	Use drugs before immigration	Didn't use drugs before immigration
Mean, (SD)	0.20*** (0.13)	0.27*** (0.15)	0.29** (0.12)	0.37** (0.11)	0.22*** (0.13)	0.30*** (0.14)

Table 11: Impact of Drug Use on Acculturation

<.01; *<.001; comparison of FSU Females and Males using t-test for means

	Drug treatment		
	Never once	Detox only	Detox and other
SAS Index Mean (SD)	0.25 (0.14)	0.26 (0.12)	0.28 (0.15)

Table 12: Drug Treatment and Acculturation

Nika's story

The following story about “Nika,” a former Soviet Union immigrant and drug user, is true. The story reflects the interaction of individual and environmental factors that influenced her vulnerability to drug use, abuse and dependence. Born in 1978, Nika emigrated from Leningrad (now St. Petersburg) to Israel at the age of 22. The interview was conducted by a senior researcher of the Regional Alcohol and Drug Abuse Resources Center, Ben Gurion University with permission and proper safeguard to her confidentiality. The interview has been edited for this chapter.

The early years

After many years of trying to become pregnant and give birth, my mother succeeded. I was born after 10 years of trying but believe my parents had no real desire to have a baby.

My father was an editor of one of the Leningrad's newspapers and my mother worked as an accountant for a restaurant in one of the train stations.

She worked all her life in restaurants, later she had a few cafés of her own in St. Petersburg. They had a pretty good life and were together for 10 years.

My father liked the “bitter drop”; he wasn’t an alcoholic but he loved to drink. He had a good job and a positive outlook toward his career. My mother was always there for him and for him only; she treated him as if he was a big child. When I came into his world all the romance and intimacy of their relationship disappeared and then the problems began. They divorced 2 years after my birth.

My father called me once a year on my birthday but we never met even when I visited Russia. He was making good money but never provided support for my mother and me. My mother went on to marry other men. The first was wonderful who I wanted to be near when I was 4 and 5 years old. Mother was suspicious of our relationship. I remember how we were lying very close and tight to each other once; I was pulled like a string and in that moment my mother came in. She had a very strange look on her face. I don’t know any of the details but soon afterwards he was gone. Afterwards, she had 4 other husbands.

There was one, a military man, who was strict and who I did not get along with after a couple of years he left the house. The third one was a married man; he was in a constant process of leaving his wife but eventually didn’t. When my mother understood, after 2-3 years, that he was not going to divorce his wife she left him. Afterwards, my mother was alone for many years and then remarried again. I lived with my mother in a two bedroom apartment; one room was my mother’s, the second was mine and a living room. To be honest, I was sleeping with my mother most of my life when her men were not in the way.

My school life was fine and from the first grade 3 girls remained my closest friends to this day. After I finished the 7th grade I joined a children’s choir and was able to travel to many European countries. I studied English but it didn’t come easy and I had a hard time getting into the university. Mother saved money and bribed my way in; after 2 years and failing grades I was expelled. The real reason was that after the first year at age 19 I “messed up” with drugs, then my life began to come apart.

Alcohol and drug use: the start

I began to drink when I was 15 years old with girlfriends. We would buy something cheap like port wine “Tri-Semerki or 777”. It was a big bottle more than enough for us to “get wasted” and then go out to the city. When I got drunk it was fun. We didn’t drink a lot, it was just for the good mood before going out. I remember drinking a bottle of liquor in the house, getting drunk and nearly passing out when my mother and her husband went out for a few hours. When I got older, age 17, my mother and I occasionally had a drink together.

My mother smoked so when I was 13 I secretly tried a number of times but I was fooling around not really smoking - you fill your mouth with smoke and then blow it out without breathing in the smoke. I began to really smoke at 17. When I started smoking I decided not to hide it from my mother. I simply asked if I could join her for a cigarette. She was very surprised and tried to change my mind about smoking at first. But then she got used to it. Besides smoking cigarettes and

drinking, I used marijuana after graduating high school – several times a month with friends including guys who were drug addicts my age who I grew up with in the same building.

Friends

Through high school I had only girlfriends but after graduation when our “grown-up” life began we all chose different paths. I made friends with boys as well. The first boys I had as friends were three drug addicted neighbors. I had a friendship with them, nothing more. I spent a lot of time with them, we regularly travelled together, went out of town or swimming. With them I began to smoke marijuana. They didn’t keep secrets from me and I was aware that that they didn’t smoke only marijuana but also used “cherniah”⁷ that is black opium. They cooked it by themselves and then used it. Several times I came with them to Dybenko Street, the city market to buy supplies. I saw how they cooked it several times. However, they didn’t use it when I was around. After a while they began offering me to try it with them.

I held myself for almost a year refusing their offers time after time. Then somehow I threw it all away - they never stopped bugging me so I gave it a try. We took the train to a suburban town where they occasionally bought “cherniah” for themselves. Then we walked for long time until we came to a house where they cooked it and used it in front of me. When I saw the needle I was shaking from fear. They injected themselves and then began to try to inject me but could not find the vein. Initially they tried to find a vein in my arm but it did not work; then they decided it would be better to try in the leg but it too did not work. I could not stand it anymore and I burst into tears and began to swear at them and they left me alone. For more than a year they heard me say no but when I finally said “yes” nothing happened. If you meet drug addicts on a daily basis and you’re constantly offered to try it yourself, so sooner or later even if it take years you give up and accept the offer to use at least for the sake of being left alone or out of curiosity.

About a week later I went to visit one of them in his house. This time we didn’t go anywhere, it was in our building. He and another friend told me “let’s go”, found my vein and injected. I didn’t feel a thing; I sat with him and the other one for an entire hour. They saw nothing was happening and offered me marijuana to smoke. They told me that after the marijuana it would start. So we smoked and decided to go outside for a walk. When we got to the elevator there was another neighbor of mine from my floor. He looked at me in a very strange way so I understood that something was wrong with me. When we got out of the elevator and went outside I fainted and fell down. Afterwards I felt very sick and told myself enough experimenting. I said to those guys that they should stay away from me with their “cherniah” and not offer me again.

Soon after that time I met a new guy and we started dating. We developed a more serious relationship. He was a rich kid; we started to go out to nightclubs, discos and various “hangouts.” My time with the neighboring friends was over but a new period was just beginning, I started sniffing heroin. The first time I was offered to try

⁷ “Cherniah or Chernyashka” – cooked opiate suitable for intravenous use

was by my boyfriend. I knew already what it was and that it was “cool” and popular. Thanks to him I meet many people who also used it. I envied them, near them I felt like a little girl who didn’t know anything about this life style. Therefore, when he offered me I accepted without hesitation. I calmed myself by thinking that to sniff is not the same as to inject; injecting is dangerous, but to sniff a couple of times - why not?

From the first time, at age 20, using heroin made me feel spaced out. I began sniffing and everything went well. I was sniffing only with my boyfriend but we didn’t see each other every day. Because of his job, as a steward on a passenger steam-ship, we wouldn’t see each other for almost two months. During these periods I renewed my relations with my drug addicted neighbors. It turned out that during the time we weren’t in touch they switched to heroin. When I found out that they were using heroin, I started injecting together with them. That’s the way it continued; when I met my boyfriend I sniffed heroin and when he was away I hooked up with my neighbors and injected with them.

I was still in school, the university, but it was far from being a top priority. I started using a needle on a regular basis. There were withdrawal periods but worst of all was what was after the withdrawals stopped. I had enough strength to deal with the withdrawals but the really hard part was what came after. Everything seemed gray and dull; my legs were taking me to my neighbors for another shot and then it would start all over again.

Thanks to my boyfriend I tried everything - ecstasy, “Trip or LSD”, mescaline. I don’t even remember what else. But I was craving only for heroin, nothing else, no marijuana, no alcohol, just heroin. In the beginning I was selling my videotapes then it was the gold, - 4 thin gold necklaces, my mother’s and mine.

Addiction, abortion and alcohol

It was a very tough time for me when I was 20 to 22 years old. At home there were always scandals that ended with my mother in tears. I broke up with my boyfriend, I was tired of “going out” and sniffing heroin was not enough for me anymore. I was expelled from the university in spite of a second chance. I didn’t have enough money for heroin so each morning began with visiting and calling my friends, neighbors and relatives to get loans for my drug. The loaned money was returned by my mother. Sometimes she returned the money and sometimes she did not, she wasn’t a millionaire you know. Anyway, I did what I could in my situation. My drug using friends also managed with whatever they had. During the winter we would rob summer houses; we took whatever we could carry and sell even if it was for a few pennies. They were already in the “system”, hooked and not able to survive one day without the needle. I too was moving in this direction. Mother would give me money for groceries so I would go to the supermarket with one of my friends and steal what was needed to buy. If we didn’t manage to steal one thing we would take something else and tell my mother that it wasn’t on sale so I replaced it. Then we would both go and buy heroin.

I tried to get treatment during that time mostly at my mother’s urging. The first time was 6 months after I started using. My mother was reaching her own conclusions but until the very end she refused to believe that I was injecting. The final straw was when she caught me cooking my portion in the kitchen. When she

saw the syringe she raised a cry and started telling me stories about drug addicts. I reacted very calmly and told her exactly what I am and that her shouting would not change a thing.

Even after I told her myself, my mother refused to completely believe it. She went to speak with the parents of my neighbor who I was using with. His parents knew for a long time already. Afterwards, she locked me inside the apartment. After 6 hours I had such a withdrawal that I can't even put into words. I was aware of what was going to happen but my mother saw it for the first time... she was very scared and called an ambulance. They gave me a painkiller and I felt a little better. The next day my mother invited a narcologist who gave me an IV and I slept for a few days. I woke up feeling empty and confused. I couldn't understand what was happening to me. I had been in this condition for 5 days and felt that I couldn't bear it any more. I had no life without heroin so I went back to my friends and used again. Afterwards, there were 7 more attempts to quit and each one ended the same way. I would manage to go through the hard withdrawal but a few days after I would start all over again. The longest time that I was clean was 8 weeks. I realized that I simply didn't want to live without heroin. I wasn't in a state of "I can't quit." I was in the state of "I don't want to quit". I realized that it was my choice and path.

The idea of immigrating and starting over didn't happened instantly. When I turned 21, after another unsuccessful attempt to quit, my mother decided to send me away to my relatives in Odessa. I hadn't been there for almost 7 years. I had a 3rd grade cousin there the same age. When I arrived I saw how he had grown and I started living with him. At first, I slept with him in the same bed. They didn't have another place for me and I didn't want to sleep on the floor. Afterwards we started to date; we went out together and he showed me the city. Then after some time I found out that I was pregnant; it was a big surprise for me and for him. Besides that, I didn't have my period from the time I started injecting. I saw that I was gaining weight but thought it was the effect of the vacation in Odessa. I remember I told my mother: "look how Odessa affected me, how well I look". And then, I do not remember for what reason, my mother and I were in the health clinic. We passed by the gynecologist's office so my mom suggested to get in. It turned out that I was 4 months pregnant. I was happy to hear this news and also my mother but when we arrived home and started to think rationally about what happened and how my life style would affect this unborn child. Nevertheless, after another withdrawal and short break I started to use again. Mother and I decided that the best thing to do was to abort. I regretted this decision and blamed her. From that time we fought a lot and I began using even more heroin. I regret it happened this way. Maybe if I had the child I would have had motivation to quit using. The doctors didn't say anything about drug use and pregnancy but I stated using birth control methods.

I used heroin constantly and drank intensively so there were no place for pregnancy with this type of life. This went on for another year until I heard about a miracle drug that could help me quit without experiencing withdrawal symptoms. It was very expensive but many of my acquaintances started to use it to quit with the needles. I was very tired and exhausted; the abortion left an impact on me. I still can't talk about it calmly. I decided to try this miracle drug and after a week I

realized I could stop using without feeling any withdrawal. To prevent my craving I began to drink strong beer. Every time I woke up I would drink a sip of beer and then go back to sleep and that's the way my days went. During that time I met a guy and we together decided to quit using but to prevent the cravings we often got drunk. My mother and his parents were willing to do anything to prevent heroin use. Their approach was it is better to drink.

Immigration, absorption and acculturation

At this time, my father told me about immigration to Israel during our yearly phone call for my birthday. I, as a daughter of a Jew, had the right to immigrate there. I didn't give it much thought at the beginning because I was studying at the university and just began to use drugs. When I decided to quit, I went to a meeting with the Israeli consul. He asked me to come back after a month with all the required documents. When I went to meet him again he asked me some questions and I filled up some forms. Then someone called from the Jewish Agency and said they found a place for me at some program for young people: I should prepare my documents for departure. To the last moment I wasn't sure whether to go or not. My mother told me to leave since I was going nowhere with my heroin and alcohol use. She began to draw a fabulous picture of my future life in Israel – a new country, new friends, no drug use, no alcohol use and everything was going to be ok. In the end she talked me into it. I really didn't know anything about the country. Little was explained to me by the recruiting agency except for what documents were needed for immigration.

On leaving Russia I told my friends that I would not survive in Israel more than a year so they should not forget me. I got so drunk on the plane going there that I don't remember what happened in the airport. I was sent to a youth program and then to an absorption center in the southern region of the country. I began to learn Hebrew, studied for two months and kept on with vodka even though I was told drug and alcohol use was forbidden and a reason for expulsion from the "Ulpan"⁸ program. In the end the fairy tale about Israel lead me to quite a shock going from a life in St. Petersburg to restrictive conditions in a desert environment. I adjusted quickly enough and visited Beer-Sheva with other immigrants a couple times a week. There we bought vodka and under a sweater or in any other way sneaked it to our center. Once a week, after receiving the Sabbath, we would drink intensively. I even had a bottle of vodka in my closet; I would take a drink from it during the day. Of course after that I had to bypass every "Madrich"⁹ so he would not notice or smell anything.

After two months in the absorption program, I met Dany who visited the program saying he owned a coffee shop. He offered immigrant girls work; easy with good wages. What did I know about this "coffee shop"? I agreed. I was the only one and drove away with him to see my future workplace. We spoke to each other in very basic English.

⁸ "Ulpan" (heb) – Hebrew learning courses; Studio (example, television studio).

⁹ "Madrich" (heb) –Instructor.

I soon learned it wasn't a coffee shop when I entered the place. Back then I wasn't an innocent girl but thought I would be working in a regular "sex shop" as a saleswoman. I couldn't even imagine that the situation was worse and that an immigrant in Israel could be tricked this way. I am not saying that in Russia everything was perfect. There I was also tricked but I understood in what way and for what. But the fact is it happened here in Israel. For me it was a low blow. I just wasn't ready for this kind of thing. When I realized where I was, I immediately wanted to go back to the absorption center. Dany calmed me down by saying it was too late to go back; I should spend the night at his place and return to the center in the morning. The next day I returned to find out I was expelled and no longer living there.

I think if I was visiting friends or relatives no one would have said anything. But they knew what kind of people came from Beer-Sheva to invite girls to work at the "coffee shop". When I did not return back on time everybody thought that I started to work. In addition they remembered all my sins connected to drinking. I think Dany knew that it would end this way and that's why he insisted I spend the night in the city.

Can you imagine my condition - alone in a strange country without knowing the local language, without any relatives and without a place to sleep? I did not know what to do but I had Dany so I went with him to the: "Sex Shop", "Strip Club", "Mahon"⁴⁰ as a strip tease dancer only.

For an almost a year I began to drink big time. I never imagined that I would end up this way. At the beginning I was scared and embarrassed. To overcome I drank a lot and don't remember myself being sober. My first thought when I woke up in the morning was whether I had enough vodka to get myself ready for work. I forgot about drugs, it was all about alcohol. I wasn't paid much but Dany provided most things. He was making money off of me and only now I realize that I could have made up to \$3,000 a month.

After I saved some money I rented an apartment. I paid three months in advance. Then Dany suggested I live at his house but not with him. In one part of the house he and his wife lived and at the other, my room. I had a difficult relationship with Dany. When I was expelled from the absorption center, I realized that I didn't have a choice and I needed to work. I told Dany that I couldn't do it without vodka. He decided to monitor by alcohol use and buy my vodka. I remember getting drunk one day taking off my clothes in front of him. I drank more and by morning realized we had sex that night. On the Sabbath, we didn't work but he would get me drunk and take advantage of me. In his home if he had any problems with his wife he knew that with a liter of vodka his night with me was guaranteed. After 6 months of this he kicked me out and deducted the cost of living at his place from my money. Again, I was helpless.

After this experience, I decided to go to back to Russia for a short visit. There, my mother had remarried again. It was the fifth time. I had an additional

⁴⁰According to Israeli Law, women who practice in prostitution are not being prosecuted for this crime. But there is a criminal offense for opening and managing brothels, pimping, incitement prostitution, etc. In order to get around existing laws, brothels operate under the guise of massage parlors, health institutions, etc. "Mahon" (Institute) - generic name of such agencies, a euphemism brothel.

step father - Misha, another Jew and a drunk. I told my mother that the main reason for my return was to get alcohol treatment. After a week in Saint Petersburg she began reminding me why I came in the first place. We went to a narcologist and he prescribed me a medicine – “Espiral” – a medical preparation used for the treatment of alcoholism. I took it for a while but then I met my old buddies who never stopped injecting. After a break for almost a year, I began to use heroin again with them.

When my mother saw what was happening to me she said that I needed to go back to Israel. There I just drank and here I started to use drugs again. I had no choice so I returned to Israel and back to Dany. I lived at his place for a week and thanks to him I met his brother Asher. He also owned “sex-shop”, “peep show” and “mahon” all under the same roof. Then I started to work at his place. After I returned to Israel I began to drink again. All that mattered for Asher was that I could stand on my feet and perform my strip tease number. I was in such a condition that I didn’t care about money. Everything that was to do with money was handled by Asher; he talked to the clients and all the money went to him. Vodka was important for me and a lot of it. I was sleeping at the workplace.

Since no one was controlling me, I drank enormous amounts when I returned from Russia and when I worked for Asher. I remember fragments of my life then, walking in the street, drunk, and constantly falling. I would get up, walk some steps and fall again. Eventually, I found myself at Soroka Hospital because I had terrible abdominal pain; I do not remember how I got there but a couple of hours later I ran out of there going from pub to pub for a drink.

On one evening I met an Arab; he invited me for a drink at his place and promised he would not touch me but there he beat me badly and raped me. After that I remember being in the hospital again; how I got there I do not know. They were treating my wounds and asking me who did this to me. So I told them Asher did it. I received treatment and returned to my workplace to spend the night only to find the place was closed for three days. I didn’t know where Asher lived and I had no place to go for three days on the streets. I was lucky that it was summer at that time. Afterwards I found out that Asher was arrested for rape and beating; he had to spend the day in jail until they figured out it was not him.

When we met I asked for his forgiveness in every way I knew. But he could not understand how I could have done such a thing - to tell such a lie. I didn’t understand either, I was drunk. He didn’t forgive me and kicked me out. I spent a couple of days on the streets, I don’t remember from where I got the money for alcohol and food. I had to go somewhere so I decided to go to Dany, his brother. I told him everything and that I was in no condition to work; he saw my terrible bruises. If I was able to do something it was to drink vodka.

Dany let me stay at his place. He locked me up during the day at the “mahon.” I was without a drink for almost 12 hours; I was shaking and shivering so Dany called for an ambulance and I was taken to Soroka Hospital again. There I had my first epileptic seizure. I lost all control over my body; I was thrown from side to side, bent, twisted to arches. They immediately gave me an injection of medication and brought me to a patient ward where I spent a couple of days. In the hospital I had a couple of more seizures but they were weaker and I began to realize that I could not keep drinking the way I do. After Soroka, I began to work

for Dany, again for pennies. I didn't quit drinking but I tried not to get drunk till unconsciousness because Dany, as before, had me under his control. But even that proved not to be enough when I was offered local heroin by some of the clients. I was now sniffing and smoking, forgetting about alcohol. My salvation was heroin, not alcohol. In spite of it all, I was going back and forth using heroin and alcohol, binge drinking for 5-6 days then going back to smoking heroin. I had a double dependence – when I used heroin I didn't want to drink; when I was drinking alcohol I didn't crave heroin. During the first 2 and a half years in Israel I was half of the time drunk and the other half high from heroin. I used cocaine but only a few times.

After I finished with Dany I returned to Asher as a prostitute to earn enough money for heroin 5-6 “manot”¹¹ every day. Before then I worked only as a strip tease dancer. Asher did not have a lot of clients so we focused on quality and not quantity. I had regular clients. On several occasions they invited me to their home. I was not greedy for money. If I came across a client that would pay additional money for some special service, I preferred to turn the offer down. I could have earned more money this way but I just didn't need to and I was concerned about my health.

After my time in Russia and return to Israel my mother came to visit me a couple of times. She would come and see what was going with me, cry and leave. Then she and my stepfather immigrated; rather my stepfather did and my mother came as a tourist because she was denied a visa. With my mother in Israel life became easier for me; she insisted that I quit my job and move in with them. I received government disability support and for the first time in years began to take care of my health – cirrhosis of the liver at a very serious stage.

Life with my stepfather in Israel was bad from the start. I told my mother right away: “Mother, he is shit” We fought regularly except when I drank with him. My mother also has a hard time with him but she tried to hold on because she didn't have Israeli citizenship. He could say all sorts of stuff and my mother would be deported from the country. He didn't like living in Israel and began to drink more often; we were forced to live together. He couldn't leave - he didn't have the money to go back to Russia; mother was trapped with him because she didn't have citizenship. Both worked in menial laundry and cleaning related jobs. I also couldn't leave because my path out was only with Dany or Asher.

I have continued to live with my mother and step father but I took methadone for treatment. I didn't use heroin and occasionally I had a drink. I smoked “grass” very often, its not heroin or vodka and you got to have something for the soul. All my plans were now linked to my health. I totally ruined my liver and needed to start treatment with Interferon. If the treatment helped I can talk about the future. If not, in five years I was going to be dead. With this kind of diagnosis you don't live long. Also, I planned to keep going with methadone.

¹¹ “n” (heb.) - portion (of a drug).

Epilogue

Nika was able to stop the use of methadone and alcohol when she decided to have healthy children. She passed through successful treatment of liver cirrhosis; continued to smoke marijuana and had two children out of marriage from two different men.

After stopping heroin and alcohol use and the birth of two children, she voluntarily entered an outpatient psychiatric treatment program to address unresolved issues related to the events she experienced. Nika took antidepressants on a regular basis; did not work but lived with her children and mother who received Israeli citizenship. Her Jewish stepfather returned to Russia and her mother's apartment in Saint Petersburg was rented serving as an additional source of income.

Immigrant women & drug treatment services: a perspective

The primary function of treatment programs for drug users should be to enhance their well-being through functions that are conducted on two levels – societal and individual. Within this context, such programs tend to have three major functions. First, they assume major responsibilities for the socialization of clients into various roles that may be occupied. Second, the programs serve as major social control agents by identifying drug users with problems. Third, these programs assume a social integration function by providing the means and resources for drug users to become integrated in the community (Isralowitz, 2002; Pickens, Leukefeld & Schuster 1991). In order to fulfill these functions, drug treatment programs have many obstacles to overcome including program management with limited resources, staff turnover and burnout, outreach to critical target populations and the challenge of providing treatment, relapse prevention and follow-up services to clients including immigrants in social and cultural transition (Isralowitz, 2002).

Among the most underserved populations in need of treatment are female drug addicts especially those with immigrant status lacking familial support. Generally, the majority of women do not receive treatment. Among the reasons, as previously mentioned, are that they may be more able than men to sustain their addiction to drugs through illegal income-earning activities such as prostitution and/or their partners may be providing drugs or supplying the money necessary to purchase drugs. Also, they may be alone caring for a child fearing that exposure of their drug use may result in giving up the child to authorities. Regardless of the reason, research of immigrant drug using women evidences a lack of interest in treatment especially that of a long term nature. Detoxification only, a short term fix, is the route preferred even if it is only for modifying their level of drug tolerance.

The general picture of drug treatment reflects a lack of gender-specific services including individual and group counseling linked to the needs of immigrant women with health problems, child care responsibilities, under

and unemployment, absence of a familial support network, and acculturation difficulties. The world of drug addiction treatment tends to be a male domain; consequently, female addicts may feel out of place in a treatment facility and becoming involved with the services provided if they are not gender-specific and attuned to their cultural needs.

In Israel, there has been a demand for treatment programs that address the needs of immigrant drug abusers. Residential 'hostels' for women have been established and consideration has been given to establishing treatment facilities for Russian speaking immigrants only. However, this approach has met with resistance because of the belief that it does not contribute to the adjustment and integration capacities needed for integration in the country (Isralowitz & Bar-Hamburger, 2002). FSU and Israeli origin women also have different views on this issue (see Table 4). Most Israeli addicts do not believe separate services for FSU women are necessary because of their cultural background and lack of Hebrew language.

There is a growing literature on female-specific treatment needs and approaches (Straussner, 1997; Straussner & Brown, 2002; Tuchman, 2010). Some experts believe treatment of special populations such as FSU immigrant women may be enhanced if their particular needs are considered and met in a treatment environment (American Psychiatric Association, 1995; Bartholomew et al., 2005; Kauffman & Woody, 1995; Walton-Moss & McCaul, 2006; Isralowitz & Reznik, 2009). However, there is not full agreement that separate programs for drug abusing women based on ethnic and cultural factors are superior to mainstream efforts with respect to outcomes (Sullivan & Fleming, 1997). Regardless of the treatment approach much more needs to be done to understand and address the ethno-specific prevention and treatment needs of immigrant women through policy, programs and services provision.

References

- Akhtar, S.** (1995). A third individuation: Immigration, identity and the psychoanalytic process. *Journal of the American Psychological Association*, 43(4), 1051-84.
- Amaro, H., Whitaker, R., Coffman, G., & Heeren, T.** (1990). Acculturation and marijuana and cocaine use: Findings from HHANES 1982-1984. *American Journal of Public Health*, Vol. 80 (12) (Suppl), 54-60.
- American Psychiatric Association** (1995). *Practice Guide for Treatment of Patients with Substance Use Disorders: Alcohol, Cocaine, Opioids*. Washington, D.C.: American Psychiatric Association.
- Batholomew, N., Courtney, K., Rowan-Szal, G., & Simpson, D.** (2005). Sexual abuse history and treatment outcomes among women undergoing methadone treatment. *Journal of Substance Abuse Treatment*, Vol. 29 (3), 231-235.
- Bryant, V., Eliach, J., & Green, S.** (1990). Adapting the Traditional EAP Model to Effectively Serve Battered Women in the Workplace. *Employee Assistance Quarterly*, 1-10.
- Bush, I., & Kraft, M.** (2001). Self-sufficiency and sobriety: Substance abusing women and welfare reform. *Journal of Social Work Practice in the Addiction*, Vol. 1(1), 41-64.
- Byqvist, S.** (1999). Criminality among female drug abusers. *Journal of Psychoactive Drugs*, Vol. 31(4), 353-362.
- Centers for Disease Control and Prevention** (2012). Emerging Infectious Diseases: Tuberculosis screening before Anti-Hepatitis C Virus Therapy in Prisons. Retrieved from http://wwwnc.cdc.gov/eid/article/18/4/11-1016_article.htm#r3#r3.
- Cheung, Y.** (1990-1991). Ethnicity and alcohol/drug use revisited: A framework for future research. *International Journal of the Addictions*, Vol. 25(5A-6A), 581-605.
- Cockerham, W.** (1997). The social determinants of the decline of life expectancy in Russia and eastern Europe: a lifestyle explanation. *Journal of Health Social Behavior*, Vol. 38(2), 117-30.
- Cortes, D., Deren, S., Andia, J., Colon, H., Robles, R., & Sung-Yeon, K.** (2003). The use of the Puerto Rican biculturalism scale with Puerto Rican drug users in New York and Puerto Rico. *Journal of Psychoactive Drugs*, Vol. 35(2), 197-207.
- De La Rosa, M., Vega, R., & Radish, M.** (2000). The role of acculturation in the substance abuse behavior of African American and Latino adolescents: Advances, issues and recommendations. *Journal of Psychoactive Drugs*, Vol. 32(1), 33-42.
- European Monitoring Centre for Drugs and Drug Addiction** (nd). *Addiction Severity Index. Russian Version*. Retrieved from http://www.emcdda.europa.eu/attachements.cfm/att_23587_RU_EuropASI_Russian.pdf

Fernandez-Pol, B., Bluestone, H., Morales, G., & Mizruchi, M. (1985). Cultural influences and alcoholism: A study of Puerto Ricans. *Alcoholism: Clinical Experimental Research*, Vol. 9(5), 443-446.

Gahr, M., Freudenmann, R., Hiemke, C., Gunst, I., Connemann, B., & Schönfeldt-Lecuona, C. (2012). "Krokodil" – Revival of an Old Drug With New Problems. *Substance Use & Misuse*, Vol. 47(7), 861-863.

Gaw, A. (Ed). (1993). *Culture, ethnicity, and mental illness*. Washington, D.C.: American Psychiatric Press.

Gil-Rivas, V., Fiorentine, R., & Anglin, M. (1996). Sexual abuse, physical abuse, and posttraumatic stress disorder among women participating in outpatient drug abuse treatment. *Journal of Psychoactive Drugs*, Vol. 28(1), 95-102.

Gil, A., Wagner, E., & Vega, W. (2000). Acculturation, familism, and alcohol use among Latino adolescent males:

Longitudinal relations. *Journal of Community Psychology*, Vol. 28(4), 443-458.

Grusser, S., Wolfling, K., Morsen, C., Albrecht, U., & Heinz, A. (2005). Immigration-Associated Variables and Substance Dependence. *Journal of Studies on Alcohol*, Vol. 66(1), 98-104.

Guarino, H., Moore, S., Marsch, L., & Florio, S. (2012). The social production of substance abuse and Hiv/HCV risk: an exploratory study of opioid –using immigrants from the former Soviet Union living in New York City. *Substance Abuse Treatment, Prevention and Policy*. Retrieved from <http://www.substanceabusepolicy.com/content/7/1/2>.

Hofmann, E. (2012). The Burden of Culture? Health Outcomes Among Immigrants from the Former Soviet Union in the United States. *Journal of Immigrant Minority Health*, Vol. 14(2), 315-322.

Hovey, J. (2000). Acculturative stress, depression, and suicidal ideation among Central American immigrants. *Suicide and Life-Threatening Behavior*, Vol. 30(2), 125-39.

Hurley, D. (1991). Women, Alcohol and Incest: An Analytical Review. *Journal of Studies on Alcohol and Drugs*, Vol. 52(3), 253-268.

Isralowitz, R. (2002). *Drug Use, Policy and Management*, Auburn House: Greenwood Publishers (2nd Edition).

Isralowitz, R. (2003). Female Heroin Addicts in Israel. *Psychiatric Times, Global Watch Special Edition*, Vol. 20(11), 25-27.

Isralowitz, R. (2004). *Drug Use: A Resources Handbook*, ABC-CLIO, Denver, Co.

Isralowitz, R., & Bar Hamburger, R. (2002). Immigrant and native-born female heroin addicts in Israel. *Journal of Psychoactive Drugs*, Vol. 34(1), 97-103.

Isralowitz, R., & Borkin, S. (2002) Russian-speaking immigrants: Factors associated with heroin use". In Isralowitz R., Afifi M., Rawson R. (eds). *Drug Problems: Cross-Cultural Policy and Program Development*. (pp. 89-112). Auburn House, Westport, CT.

Isralowitz, R., & Reznik, A. (2009). Problem Severity Profiles of Substance Abusing Women in Therapeutic Treatment Facilities. *International Journal of Mental Health and Addiction*, Vol. 7(2), 368-375.

Isralowitz, R., Reznik, A., & Straussner, S. (2011). Prescription Drug Use Trends among Israeli School Dropouts: An Analysis of Gender and Country of Origin. *Journal of Social Work Practice in the Addictions*, Vol. 11(1), 75-86.

Isralowitz, R., Reznik, A., & Peleg, T. (2013). Former Soviet Union Immigrant Illicit Drug Use in Israel (1989-2010): Implications for Prevention and Treatment Policy. *Journal of Addictive Behaviors, Therapy & Rehabilitation*, 2:1.

Isralowitz, R., Reznik, A., Spear, S., Brecht, M., & Rawson, R. (2007). Severity of Heroin Use in Israel: Comparisons between Native Israelis and Former Soviet Union Immigrants. *Addiction*, Vol. 102(4), 630-637.

Isralowitz, R., Straussner, L., & Rosenblum, A. (2006). Drug Abuse, Risks of Infectious Diseases and Service Utilization among Former Soviet Union Immigrants: A View from New York City. *Journal of Ethnicity in Substance Abuse*, Vol. 5(1), 91-96.

Johnson, T. (1996). Alcohol and drug use among displaced persons: An overview. *Substance Use & Misuse*, Vol. 31(13), 1853-1889.

Kauffman, J., & Woody, G. (1995). Matching Treatment to Patient Needs in Opioid Substitution Therapy. SAMHSA, DHHS Publication No. (SMA) 95-3049.

Leshner, A. (1998). Foreword, in C. Wetherington & A. Roman, *Drug Addiction Research and the Health of Women*, NIH Publication No. 98-4289, iii.

Lu, F., Lim, R., & Mezzich, J. (1995). Issues in the assessment and diagnosis of culturally diverse individuals. In J. Oldham & M. Riba (Eds.) *Review of Psychiatry*, Vol. 14, 477-510. Washington, DC: American Psychiatric Press.

Malinowska-Sempruch, K., Hoover, J., & Alexandrova, A. (2003). Unintended consequences: drug policies fuel the HIV epidemic in Russia and Ukraine. Open Society Institute, New York.

Marin, G., Sabogal F., Marin, B., Otero-Sabogal, R., & Perez-Stable, E. (1987). Development of a Short Acculturation Scale for Hispanics. *Hispanic Journal of Behavioral Sciences*, Vol. 9(2), 183-205.

McGahan, P., Griffith J., Parenfe R., & McLellan, A. (1986). Composite Score Manual. Treatment Research Institute, Philadelphia, PA. Retrieved from <http://triweb.tresearch.org/index.php/tools/order-tri-resources/asi-composite-scores-manual/>

McLellan, A., Kushner, H., Metzger, D., Peters, F., Smith, I., Grissom, G., et al. (1992) The fth edition of the Addiction Severity Index. *Journal of Substance Abuse Treatment*, Vol. 9(3), 199-213.

Medscape Today (2012). WHI Issues Guidance on Prevention of HBV, HCV Infection. Retrieved from <http://www.medscape.com/viewarticle/768153>

Meyerovich, M. (2003). Somatic symptoms among recent Russian immigrants. American Medical Association, <http://www.ama-assn.org/ama/pub/article/8401-1959.html>

Migliori, G., & Ambrosetti, M. (1998). Epidemiology of Tuberculosis in Europe. *Modali Archives of Chest Diseases*, Vol. 53(6), 681-687.

Mirdal, G. (1984). Stress and distress immigration: Problems and resources of Turkish women in Denmark. *International Migration Review*, Vol. 18(4), 984-1003.

Miranda, A., & Matheny, K. (2000). Socio-psychological predictors of acculturative stress among Latino adults. *Journal of Mental Health Counseling*, Vol. 22(4), 306-317.

Moras, K. (1998). Psychosocial and behavioral treatments for women. In. *Drug Addiction Research and the Health of Women*, Wetherington, C., & Roman, A, Eds. NIH Publication No. 98-4289, pp 49-52.

National Institute on Drug Abuse (1999). NIDA Notes, Vol.14 (2).

Oetting, E., & Beauvais, F. (1991). Orthogonal cultural identification theory: The cultural identification of minority adolescents. *International Journal of the Addictions*, Vol. 25(5A-6A), 655-685.

Olsen, K., & Pavetti, L. (1996). Personal and Family Challenges to The Success Transition From Welfare to Work. Washington, D.C: The Urban Institute and U.S. Department of Health and Human Services.

Petry, N., & Bickel, W. (2000). Gender differences in hostility of opioid-dependent outpatients: Role in early treatment termination. *Drug and Alcohol Dependence*, Vol. 58(1-2), 27-33.

Philippov, M. (2010). Ex-Soviets in the Israeli political space: values, attitudes, and elective behavior. University of Maryland: Gildehorn Institute of Israel Studies. Retrieved from: <http://www.israelstudies.umd.edu/articles/research-paper-3.pdf>

Pickens, R., Leukefeld, C., & Schuster, C. (1991). *Improving Drug Abuse Treatment*, Research Monograph 106, Rockville, MD: U.S. Department of Health and Human Services, National Institute on Drug Abuse.

Pridemore, W. (2002). Vodka and violence: Alcohol consumption and homicide rates in Russia. *American Journal of Public Health*, Vol. 92(12), 1921-1930.

RIA Novosti (2012). Russia hopes to halve number of drug addicts by 2014. Retrieved from <http://en.rian.ru/russia/20110525/164213137.html>

Rogler, L., Cortes, D., & Malgady, R. (1991). Acculturation and mental health status among Hispanics: Convergence and new directions for research. *American Psychologist*, Vol. 46(6), 585-97.

Roth, P. (1991). Alcohol and Drugs Are Women's Issues: Vol. 1. A Review of the Issues.

Metuchen, N.J. The Scarecrow Press.

Sandhu, D., Portes, P., & McPhee, S. (1996). Assessing cultural adaptation: Psychometric properties of the Cultural Adaptation Pain Scale. *Journal of Multicultural Counseling and Development*, Vol. 24(1), 15-25.

Straussner, S. (1997). Gender issues in addictions: An overview. In Straussner, S. & Zelman, E. (Eds) *Gender and Addictions: Men and Women in Treatment*. Northvale, NJ: Jason Aronson.

Straussner, S. (Ed.) (2002). *Ethnocultural factors in substance abuse treatment*, New York: Guilford Press.

Straussner, S., & Brown, S. (Eds.) (2002). *The Handbook of Addiction Treatment for Women: Theory and Practice*. San Francisco: Jossey-Bass.

Sullivan, E., & Fleming, M. (1997). *A Guide to Substance Abuse for Primary Care Clinicians*. DHHS Publication (SMA), 97-3139, Washington, D.C.

Swett, C., Cohen, C., & Surrey, J. (1991). High rates of alcohol use and history of physical and sexual abuse among women outpatients. *American Journal of Alcohol Abuse*, Vol. 17(1), 49-60.

Tucker, M. (1985). U.S. ethnic minorities and drug abuse: An assessment of the science and practice. *International Journal of the Addictions*, Vol. 20 (6-7), 1021-1047.

Tuchman, E. (2010). Women and addiction: The importance of gender issues in substance abuse treatment. *Journal of Addictive Diseases*, Vol. 29(2), 127-138.

UNAIDS (2012). *Global Report Fact Sheet: Eastern Europe and Central Asia*. Retrieved from http://www.unaids.org/documents/20101123_FS_eeca_em_en.pdf

United States Department of State (2004). *International Narcotics Control Strategy Report -2003*. Retrieved from <http://www.state.gov/j/inl/rls/nrcrpt/2003/index.htm>

United States Department of State (2012). *International Narcotics Control Strategy Report -2012*. Retrieved from <http://www.state.gov/j/inl/rls/nrcrpt/2012/vol1/184102.htm>

United Nations Office on Drugs and Crime (2011). *World Drug Report*. Retrieved from http://www.unodc.org/documents/data-and-analysis/WDR2011/World_Drug_Report_2011_ebook.pdf

Velez, C., & Ungemack, J. (1989). Drug use among Puerto Rican youth: An exploration and generational status differences. *Social Science Medicine*, Vol. 29(6), 779-789.

Walton-Moss, B., & McCaul, M. (2006). Factors associated with lifetime history of drug treatment among substance dependent women. *Addictive Behaviors*, Vol. 31(2), 246-253.

Ward, C., & Rana-Deuba, A. (1999). Acculturation and adaptation revisited. *Journal of Cross-Cultural Psychology*, 30(4), 422-442.

World Health Organization (2012). Hepatitis C: Fact Sheet. Retrieved from <http://www.who.int/mediacentre/factsheets/fs164/en/>

Zane, N., & Mak, W. (2003). Major Approaches to the Measurement of Acculturation Among Ethnic Minority Population: A Content Analysis and an Alternative Empirical Strategy. In Chun, K. , Balls Organista, P., & Marín, G. (Eds.). *Acculturation: Advances in theory, measurement, and applied research* (pp. 39-60). Washington, DC: American Psychological Association.

Chapter IV

Understanding and applying gender differences in recovery

Stephanie S. Covington

Co-Director, Center for Gender and Justice, Institute for Relational Development, La Jolla, (CA) USA

Introduction

Over the past thirty years, our knowledge of women's addictions has increased dramatically, and we have added significantly to our understanding of the treatment needs of women who are addicted to alcohol and other drugs.

Historically, substance abuse treatment developed as a single-focused intervention, based on the needs of addicted men. Counselors focused only on the addiction and assumed that other issues would either resolve themselves through recovery or would be dealt with by another helping professional at a later time.

However, research shows that a vast majority of addicted women have suffered violence and other forms of abuse, and a history of being abused drastically increases the likelihood that a woman will abuse alcohol and other drugs. One of the most important developments in health care over the past several decades is the recognition that a history of serious traumatic experiences plays an often-unrecognized role in a woman's physical and mental health problems (Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss, & Marks, 1998; Messina & Grella, 2006).

In one of the first studies on addicted women and trauma, 74 percent of the addicted women reported sexual abuse, 52 percent reported physical abuse, and 72 percent reported emotional abuse. "Moreover, the addicted women were found to have been abused sexually, physically, and emotionally by more perpetrators, more frequently, and for longer periods of time than their non addicted counterparts. The addicted women also reported more incidents of incest and rape" (Covington & Kohen, 1984, p. 42). More recent studies confirm that the majority of substance-abusing women have experienced sexual and/or physical abuse (Kendall-Tackett, 2005; Ouimette et al., 2000).

Gender-responsive services

The research also demonstrates that addiction treatment services for women (and girls) need to be based on a holistic and woman-centered approach that acknowledges their psychosocial needs (Grella, 1999; Grella, Joshi, & Hser, 2000; Orwin, Francisco, & Bernichon, 2001). This author defines gender-responsive, woman-centered treatment as the creation of an environment – through site selection, staff selection, program development, and program content and materials – that reflects an understanding of the realities of women's and girls' lives and that addresses and responds to their challenges and strengths.

The issue of gender

Awareness of gender issues must be part of the clinical perspective. The keys to developing effective services for women are understanding and acknowledging the effects of living as a female in a male-based society. In most of the world today, the male gender is dominant, and its influence is so pervasive that it often is unseen. One result is that programs and policies called “gender neutral” are actually male based. For example, program administrators may take a traditional program designed for men, change the word “he” to “she,” and call the result a “program for women.”

Research suggests that social and environmental factors (including gender socialization, gender roles, and gender inequality) account for many of the behavioral differences between women and men. Gender differences are neither innate nor unchangeable; they are ascribed by society and relate to expected social roles, so it is important to acknowledge some of the dynamics in a gendered society.

Differences also exist between women based on a number of factors (such as race and socioeconomic status), and these can influence a helping professional’s views of gender-appropriate roles and behaviors. Regardless of their differences, all women are expected to incorporate the gender-based norms, values, and behaviors of the dominant culture into their lives. As Kaschak (1992) states.

The most centrally meaningful principle on our culture’s mattering map is gender, which intersects with other culturally and personally meaningful categories such as race, class, ethnicity, and sexual orientation. Within all of these categories, people attribute different meanings to femaleness and maleness.

Gender responsive principles

In a research-based report for the National Institute of Corrections, which states the guiding principles for working with women, gender is the first principle. A multidisciplinary review of the literature and research on women’s lives in the areas of substance abuse, trauma, health, education and training, mental health, and employment was conducted as part of this project. The following principles are applicable to any setting that serves women (Bloom, Owen, & Covington, 2003):

- Gender: Acknowledge that gender makes a difference.
- Environment: Create an environment based on safety, respect, and dignity.
- Relationships: Develop policies, practices, and programs that are relational and promote healthy connections to children, family, significant others, and the community.
- Services: Address substance abuse, trauma, and mental health issues through comprehensive, integrated, and culturally relevant services.
- Socioeconomic status: Provide women with opportunities to improve their socioeconomic conditions.
- Community: Establish a system of comprehensive and collaborative community services.

Common themes in the lives of addicted women

Several years ago the United Nations developed a monograph on the treatment of drug-addicted women around the world. At a meeting of experts held in Vienna, it became clear that many of the issues that addicted women struggle with are universal:

- Treatment issues.
- Systemic issues.
- Shame and stigma.
- Physical and sexual abuse.
- Relationship issues.
- Fear of losing children.
- Fear of losing a partner.
- Needing a partner's permission to obtain treatment.
- Lack of services for women.
- Lack of understanding of women's treatment.
- Long waiting lists.
- Lack of childcare services.
- Lack of financial resources.
- Lack of clean and sober housing.
- Poorly coordinated services.

It is important to note that helping professionals around the world report an association between addiction and all forms of interpersonal violence (physical, sexual, and emotional) in women's lives (United Nations Office on Drugs and Crime, 2004).

A model for women's recovery: women's integrated treatment

The recurring theme of the interrelationship between substance abuse and trauma in women's lives indicates the need for a multi-focused approach to services. One treatment model, developed by the author, is called "Women's Integrated Treatment" (WIT). The WIT model is based on 1) the definition of and principles for gender-responsive services (previously discussed), 2) a theoretical foundation (discussed below), and 3) multi-dimensional therapeutic interventions. Several studies (e.g., Covington, Burke, Keaton, & Norcott, 2008; SANDAG, 2007), including two experimental, randomized, control-group studies (Messina, Calhoun, & Warda, 2012; Messina, Grella, Cartier, & Torres, 2010) show positive results for the WIT model. These results are discussed in a later section.

Theoretical foundations

In order to develop gender-responsive services and treatment for women, it is essential to begin with a theoretical framework. This is the knowledge base on which programs are developed. The three fundamental theories underlying the WIT model are: relational-cultural theory, addiction theory, and trauma theory.

Relational-cultural theory

A link between understanding women's addiction and creating effective treatment programs for women is understanding the unique characteristics of women's psychological development and needs. Theories that focus on female development, such as "Relational-Cultural Theory" (Jordan, 1991) posit that the primary motivation for women throughout life is the establishment of a strong sense of connection with others. Relational-Cultural Theory (RCT) developed from an increased understanding of gender differences and, specifically, from an understanding of the different ways in which women and men develop psychologically. According to this theory, females develop a sense of self and self-worth when their actions arise out of, and lead back into, connections with others. Connection, not separation, is the guiding principle of growth for women and girls. RCT describes the outcomes of growth-fostering relationships, as well as the impact of disconnections. Disconnections happen at the sociocultural level, as well as the personal level, through racism, sexism, heterosexism, and classism. The issues of dominance and privilege are two aspects of Relational-Cultural Theory (Jordan & Hartling, 2002).

Addiction theory

In recent years, health professionals in many disciplines have revised their concepts of all diseases and have created a holistic view of health that acknowledges the physical, emotional, psychological, and spiritual aspects of disease. In a truly holistic model, the environmental and sociopolitical aspects of disease are also included. The WIT model uses a holistic model of addiction (which is essentially a systems perspective) to understand every aspect – physical, emotional, and spiritual – of the woman's self as well as the environmental and sociopolitical aspects of her life, in order to understand her addiction. An addicted woman typically is not using alcohol or other drugs in isolation, so her relationships with her family members and other loved ones, local community, and society are taken into account. For example, even though a woman may have a strong genetic predisposition to addiction, it is important to understand that she may have grown up in an environment in which addiction and drug dealing are commonplace (Covington, 2007).

Although the addiction treatment field considers addiction a "chronic, progressive disease," its treatment methods are more closely aligned to those of the acute care medical model than the chronic-disease model of care (White, Boyle, & Loveland, 2002). An alternative to the acute-care model for treating disease is "behavioral health recovery management" (BHRM). This concept grew out of and shares much in common with "disease management" approaches to other chronic health problems; it focuses on quality-of-life outcomes as defined by the individual and family. It also offers a broader range of services earlier and extends treatment well beyond traditional (medical) services. The more holistic BHRM model extends the current continuum of care for addiction by including: 1) pretreatment (recovery-priming) services; 2) recovery mentoring through primary treatment; and 3) sustained, post-treatment, recovery-support services (Boyle, White, Corrigan, & Loveland, 2005).

An integration of BHRM and the holistic health model of addiction is the most effective theoretical framework for developing treatment services for women because it is based on a multidimensional framework. It allows clinicians to treat addiction as the primary problem while also addressing the complexity of issues that women bring to treatment: genetic predispositions, histories of abuse, health consequences, shame, isolation, or a combination of these. When addiction has been a core part of multiple aspects of a woman's life, the treatment process requires a holistic, multidimensional approach.

Trauma theory

Violence against women is so pervasive that the United Nations has addressed and defined violence against women as "any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivations of liberty, whether occurring in public or private life" (United Nations General Assembly, 1993).

The third theory integrated into the WIT model is based on the principles of trauma-informed services (Harris & Falot, 2001) and the "Three-Stage Model of Trauma Recovery" developed by Dr. Judith Herman (1997).

Understanding trauma

Trauma is not limited to suffering violence; it includes witnessing violence as well as stigmatization because of gender, race, poverty, incarceration, or sexual orientation. The terms violence, trauma, abuse, and post-traumatic stress disorder (PTSD) often are used interchangeably. One way to clarify these terms is to think of trauma as a response to violence or some other overwhelmingly negative experience (e.g., abuse). Trauma is both an event and a particular response to an event. PTSD is one type of anxiety disorder that results from trauma.

The symptoms of PTSD fall into four categories:

- Intrusive symptoms: flashbacks, nightmares, and intense or prolonged distress.
- Avoidance symptoms: isolation and disconnection from others; avoiding people, places, and situations that are triggers or reminders.
- Negative emotions and thoughts: blaming, excessive negativity, fear, anger, shame, and diminished interests.
- Arousal and reactivity: angry outbursts, reckless and dangerous behavior, hypervigilance, difficulty sleeping, and an increased startle response (American Psychiatric Association, 2013).

There are two types of PTSD: simple and complex. Complex PTSD usually results from multiple incidents of abuse and violence (such as childhood sexual abuse and domestic violence). A single traumatic incident in adulthood (such as a flood or accident) may result in simple PTSD.

A review of studies that examine the combined effects of post-traumatic stress disorder and substance abuse found more co-morbid mental disorders,

medical problems, psychological symptoms, in-patient admissions, interpersonal problems, lower levels of functioning, poor compliance with aftercare and motivation for treatment, and other significant life problems (such as homelessness, HIV, domestic violence, and loss of custody of children) in women with both disorders than in women with PTSD or substance abuse alone (Najavits, Weiss, & Shaw, 1997).

Gender differences

There is a difference between women and men in terms of their risk for physical and sexual abuse. Both female and male children are at relatively equal risk from family members and people known to them. However, as males age, they are more likely to be harmed by enemies or strangers, whereas women are more likely to be harmed by their lovers or partners (Covington, 2003, 2008; Kendall-Tackett, 2005).

In adolescence, boys are at risk if they are gay, young men of color, or gang members. Their risk is from people who dislike or hate them. For a young woman, the risk is in her relationships, from the person(s) to whom she is saying, "I love you." For an adult man, the risk for abuse comes from being in combat or being a victim of crime. His risk is from "the enemy" or from a stranger. For an adult woman, the primary risk is again in her relationship with the person to whom she says, "I love you." Clinically, we think that this may account for the increase in mental health problems for women. In short, it is more confusing and distressing to have the person who is supposed to love and care for you do harm to you than it is to be harmed by someone who dislikes you, is defined as an enemy or is a stranger.

Figure 1 and 2 from the Bureau of Justice Statistics indicate some of these gender differences.

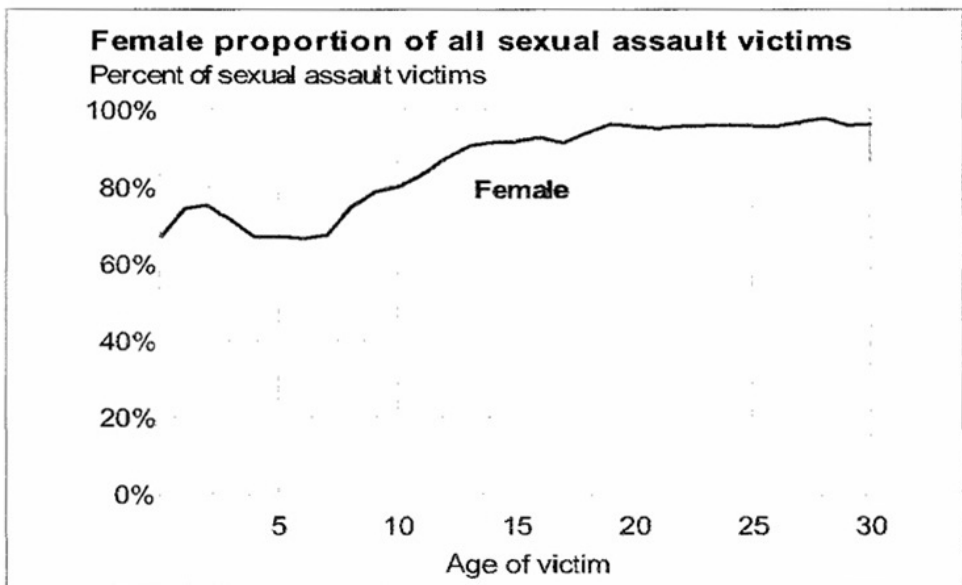


Figure 1 Source: Bureau of Justice Statistics. (2000). Sexual assault of young children as reported to law enforcement: Victim, incident, and offender characteristics. Washington, DC: U.S. Department of Justice.

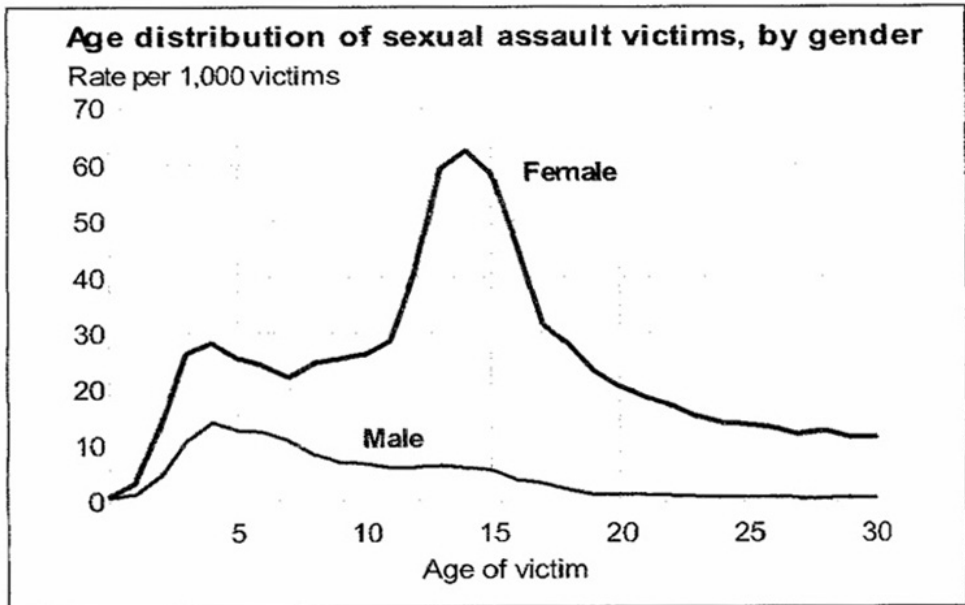


Figure 2 Source: Bureau of Justice Statistics. (2000). Sexual assault of young children as reported to law enforcement: Victim, incident, and offender characteristics. Washington, DC: U.S. Department of Justice.

Figure 1 shows that a significant number of males are sexually abused as children. From ages one to ten, approximately 35 percent to 20 percent of victims are male and 65 percent to 80 percent are female. However, in adult life, victims of sexual abuse are almost 100 percent female.

Figure 2 indicates that the age of greatest risk for males is age five; for females it is age fourteen.

Of course, different women have different responses to violence and abuse. Some may respond without trauma because they have coping skills that are effective for a specific event. Sometimes trauma occurs but is not recognized immediately, because the violent event is perceived as normal. Many women who used to be considered “treatment failures” because they relapsed are now recognized as trauma survivors who returned to alcohol or other drugs in order to medicate the pain of trauma. By integrating trauma treatment with addiction treatment, we reduce the risk of trauma-based relapse.

Becoming trauma-informed

As the understanding of traumatic experiences increases among clinicians, mental health theories and practices are changing. It is important for service providers to understand trauma theory as a conceptual framework for clinical practice and to provide trauma-informed services for their clients. According to Harris & FalLOT (2001), trauma-informed services do the following:

- Take the trauma into account.
- Avoid triggering trauma reactions or retraumatizing the woman.

- Adjust the behavior of counselors and staff members to support the woman's coping capacity.
- Allow survivors to manage their trauma symptoms successfully so that they are able to access, retain, and benefit from the services.

There are five core values that treatment services need to incorporate in order to be trauma informed (Fallot & Harris, 2008):

- **Safety:** Ensuring physical and emotional safety.
- **Trustworthiness:** Maximizing trustworthiness, making tasks clear, and maintaining appropriate boundaries.
- **Choice:** Prioritizing client choice and control.
- **Collaboration:** Maximizing collaboration and sharing power with clients.
- **Empowerment:** Prioritizing client empowerment and skill building.

These five core values need to be in place for staff members as well as clients. It is not realistic to expect that they can be incorporated for clients but not experienced by the staff as well.

For treatment providers who want to include or expand trauma services, the following model provides a description of how to integrate trauma-informed services and trauma treatment into addiction treatment programs.

A three-stage model for trauma recovery

In *Trauma and Recovery*, psychiatrist Judith Herman (1997) defines trauma as a disease of disconnection. She presents a three-stage model for trauma recovery: 1) safety, 2) remembrance and mourning, and 3) reconnection. These three stages are interdependent and usually do not occur in a linear fashion.

Stage 1: safety

The first stage focuses on caring for oneself in the present. Upon entering addiction treatment, a woman typically is in Stage 1 and her primary need is safety. "Survivors feel unsafe in their bodies. Their emotions and their thinking feel out of control. Often, they also feel unsafe in relation to other people" (Herman, 1997, p. 160).

If we want to assist women in changing their lives, we must create a safe environment in which the healing process can begin to take place. Counselors can help women to feel safe by ensuring as much as possible that there are appropriate boundaries between the clients and all the helping professionals (that is, the environment is free of physical, emotional, and sexual harassment and abuse). Although it may be possible for a clinician to guarantee absolute safety only in a private-practice setting, participants in treatment programs need to know that the environment is likely to be safe for them. Counselors also should assess each woman's risk of domestic violence and, if needed, provide resources to a woman so that she can get help. These resources include telephone numbers for the local domestic violence hotline and the local women's shelter.

Many chemically dependent trauma survivors use drugs to medicate their anxiety or depression because they know no better ways to comfort themselves.

Counselors can teach women to feel safe internally by teaching them to use grounding exercises or self-soothing techniques, rather than drugs, to alleviate anxiety and depression. Many grounding exercises are based on use of the breath and other forms of mindfulness. Self-soothing can include activities such as reading, walking, music, and bubble baths.

Herman emphasizes that a trauma survivor who is working on safety issues needs to be in a woman-only recovery group (including the facilitator). Until they are in Stage 3 (reconnection), women may not want to talk about sensitive issues in groups that include men. Herman cites Twelve Step groups as the type appropriate for Stage 1 (safety) recovery because of their focus on present-tense issues of self-care in a supportive, structured environment. This safety stage focuses on issues that are congruent with the issues of beginning recovery. However, it is also important to note that some trauma survivors do not feel safe in co-ed Twelve Step groups when there are men who aggressively pursue them.

Stage 2: remembrance and mourning

A woman who is stabilized in her addiction treatment may be ready to begin Stage-2 trauma work. Stage 2, remembrance and mourning, focuses on trauma that occurred in the past. For example, in a survivors' group, participants tell their stories of trauma and mourn their old selves, which the trauma destroyed. During this phase, women often begin to acknowledge the incredible amount of loss in their lives. Although the risk of relapse can be high during this phase of work, the risk can be minimized through anticipation, planning, and the development of self-soothing mechanisms.

Stage 3: Reconnection

Stage 3 focuses on developing a new self and creating a new future. Stage-3 groups traditionally are unstructured and heterogeneous. This phase of trauma recovery corresponds to the ongoing recovery phase of addiction treatment. For some women, this work can occur only after several years of recovery.

The trauma informed environment

In women's treatment programs, sensitivity to trauma-related issues is critical for a healing environment. A calm atmosphere that respects privacy and maximizes the choices a woman can make will promote healing. Staff members should be trained to recognize the effects of trauma, and clients should have a clear understanding of the rules and policies of the program. A trauma-informed environment includes:

- Attention to boundaries – between staff members and participants, among participants, and among participants and visitors. For example, clients should be given permission to say “no” to hugs. Hugging may be an expression of positive emotion for some women, but for those who have been traumatized it could represent an undesired intrusion into their personal spaces.
- Language that communicates the values of empowerment and recovery. Punitive approaches, shaming techniques, and intrusive monitoring are not appropriate.
- Staff members who adopt the “do no harm” credo to avoid damaging interactions. Conflict is dealt with through negotiation.

Women in the criminal justice system

Understanding the impact of trauma is particularly important when working with women in the criminal justice system. Unfortunately, standard management practices – such as searches, seclusion, and restraint – may traumatize or retraumatize many females. Experiences in the criminal justice system can trigger memories of earlier abuse. It can be retraumatizing when a survivor of sexual abuse has a body search or must shower with male correctional officers nearby. It can be retraumatizing when a battered woman is yelled at or cursed at by a staff person. Incarceration can be traumatizing in itself, and the racism and class discrimination that are characteristic of the criminal justice system can be further traumatizing.

The link between trauma, substance abuse and other health issues

The following chart helps to explain the process of trauma and its interrelationship with substance abuse and other disorders. Trauma begins with an event or experience that overwhelms a woman’s normal coping mechanisms.

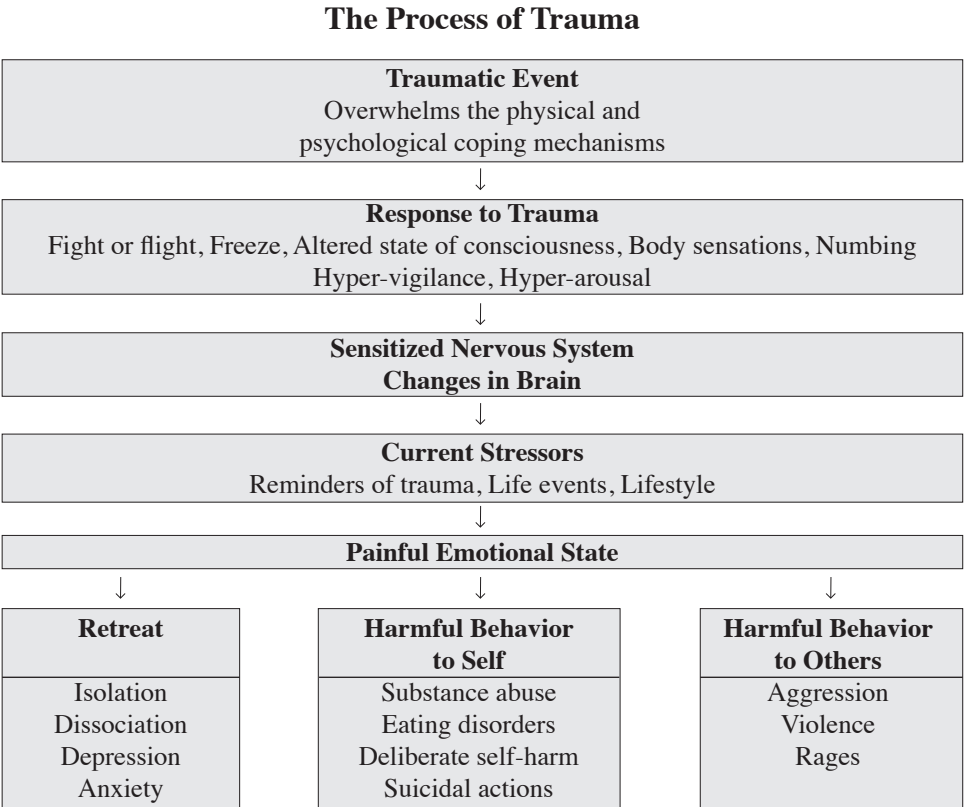


Figure 3 Source: Beyond Trauma: A Healing Journey for Women, by Stephanie S. Covington. Copyright © 2003 by Stephanie S. Covington.

Victims have physical and psychological reactions in response to traumatic events – defined as normal reactions to an abnormal or extreme situation. This creates a painful emotional state and subsequent behaviors. The behaviors can be placed into three categories: retreat, harm to self, and harm to others. Women are more likely to retreat or be harmful to self, while men are more likely to harm self and/or others (Covington, 2003).

As noted earlier, one of the most important developments in health care since the 1980s is the recognition that serious traumatic experiences often play an unrecognized role in a woman's physical and mental health problems. For many women, a co-occurring disorder is trauma related. The Adverse Childhood Experiences Study (Felitti et al., 1998; Felitti & Anda, 2010) shows a strong link between childhood trauma and adult physical and mental health problems. Ten types of childhood traumatic events were assessed (emotional abuse and neglect, physical neglect, physical abuse, sexual abuse, family violence, family alcoholism, parental separation/divorce, incarcerated family member, and out-of-home placement). A score of four or more increased the risk of both mental and physical health problems in adult lives. This study was a model for research done on women in the criminal justice system. For women who scored seven or more, the risk of a mental health problem was increased by 980 percent (Messina & Grella, 2006).

Addicted women are more likely to experience the following co-occurring disorders: depression, dissociation, post-traumatic stress disorder, other anxiety disorders, eating disorders, and personality disorders. Mood disorders and anxiety disorders are the most common. Women are commonly diagnosed as having “borderline personality disorder” (BPD) more often than men are. Many of the descriptors of BPD can be viewed differently when one considers a history of childhood and adult abuse. The American Psychiatric Association is considering adding the diagnosis of “complex PTSD” in the next edition of the DSM (Herman, 1997).

The process of recovery for women

Over the years, the definition of recovery has shifted from a focus on what is removed or eliminated from a woman's life (i.e., alcohol, drugs, cigarettes, criminal activity, depression, hospitalizations) to what has been added to her life. Recovery is a process through which severe problems with alcohol and other drugs, as well as co-occurring disorders, are resolved and there is a development of physical, emotional, spiritual, and relational health.

The spirals of addiction, recovery, and trauma

We can envision the process of addiction as a downward spiral and the process of recovery as an upward spiral, as is illustrated in Figure 4. The line that goes through the middle of the spiral represents the addiction, which is ever-present in the woman's life. The downward spiral (constriction) shows how addiction pulls her into ever-tightening circles as she becomes completely focused on the drug of choice and it becomes the organizing principal in her life. Using alcohol or other drugs, protecting her supply, hiding her addiction from others, and cultivating her love hate relationship with her drug begin to dominate her world.

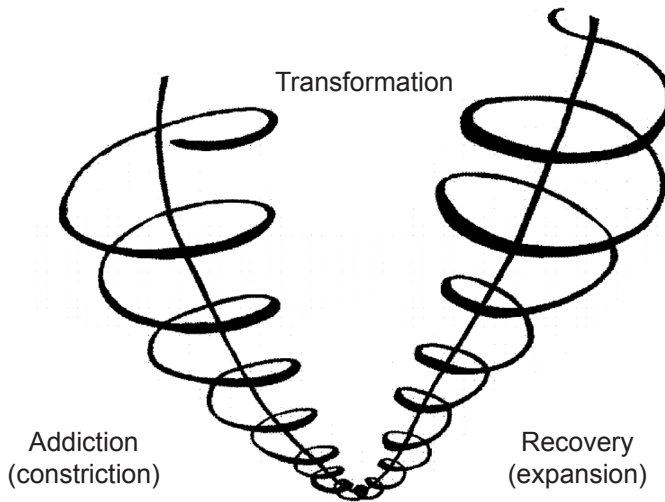


Figure 4 Source: *Helping Women Recover: A Program for Treating Addiction*, by Stephanie S. Covington. Copyright © 1999, 2008 by Stephanie S. Covington.

When a woman is in this downward phase of constriction, the counselor’s task is to break through her denial. The woman must come to a point of transition, in which she shifts her perceptions in two ways. She must shift from believing “I am in control” to admitting, “I am not in control.” She must stop believing “I am not an addict” and admit, “I am an addict.” Both shifts can feel humiliating. The UN has noted that many societies have a double standard that attributes far more shame to a woman who has an addiction than to a man who does (United Nations Office on Drugs and Crime, 2004). The effects of alcohol on pregnancy (fetal alcohol spectrum disorder) contribute to the stigmatization of addicted women. Even when not pregnant or parenting, a substance-abusing woman is characterized as a “fallen woman” or a “slut,” which adds to the stigma of seeking help for her addiction. Although society may stigmatize a male addict as a “bum,” it rarely attacks his sexuality or his competence as a parent. We must understand that a woman who enters treatment may come with a heavy burden of shame. She does not need to be shamed further; rather, she needs to be offered the hope that she can heal.

The upward spiral of recovery (expansion) still revolves around the drug but in ever-widening circles, as the addiction loosens its grip and the woman’s world expands away from it. Her world grows to include new, healthy activities; new, healthy relationships; an expanded self-concept; and richer sexual and spiritual lives.

Notice that the process is not merely one of turning around and ascending the same spiral but one of profound change, so that the woman ascends a different spiral. When women speak of recovery, they speak of a fundamental transformation: “I’m not the same person. I’m different than I was.”

Because so many addicted women have been traumatized, it is important to consider the process of trauma and recovery. The same concept of a spiral can be used, because trauma also constricts and limits a woman’s life. The traumatic

events in her life often become a central issue for her (as represented by the line through the middle of the downward spiral). Again, there is a turning point at the bottom of the spiral. The upward spiral can also represent the process of healing from trauma. For many women it is a concurrent process of recovery (from addiction) and healing (from trauma). As a woman becomes more aware of how trauma has affected her life, she experiences less constriction and limitation. With new behaviors and coping skills, there is greater opportunity for growth and expansion. If the woman has experienced trauma, it is still a thread in the tapestry of her life but it is no longer the core.

Using the spiral example, we can expand our definition of recovery for women. Recovery means growth and expansion, it means having the inner self (thoughts, feelings, beliefs, and values) consistent with the outer self (behaviors and relationships). This means that there is cohesion, congruence, and consistency in the woman's life. What she is thinking and feeling are now congruent with what she is doing. In essence, helping a woman to recover is about helping her to build integrity in her life and, ultimately, to experience profound, transformational change.

Seven gender-responsive, trauma-informed curricula

In developing gender-responsive services, the curriculum or material used is crucial to the success of the treatment. The following are descriptions of seven manualized curricula that the author has designed for working with women and girls. They are theoretically based and trauma informed. Each includes a facilitator's guide and a participant's workbook. Each uses cognitive-behavioral, relational, mindfulness, and expressive arts techniques. These materials not only help to provide services but also can be used to educate staff members¹.

Helping Women Recover: a program for treating addiction

This evidence-based resource provides a comprehensive, seventeen-session curriculum that includes the information and tools that counselors, mental health professionals, and program administrators need to implement an effective program for women's recovery in varied settings. *Helping Women Recover* is organized in four modules that address key areas that women in treatment identify as triggers for relapse: self, relationships, sexuality, and spirituality. The content addresses the issues of self-esteem, sexism, family of origin, relationships, domestic violence, and trauma. The curriculum is built on the integration of theories of women's psychological development, trauma, and addiction.

A step-by-step guide for facilitating each session is provided. It includes lectures, activities, and discussions, as well as timing and notes for the facilitator.

¹ More information on the curricula described in this chapter and other gender-responsive and trauma-informed materials for women can be found on two websites: www.stephaniecovington.com and www.centerforgenderandjustice.org

A participant's workbook, *A Woman's Journal*, is filled with self-tests, checklists, and exercises to enable each participant to create a personalized guide to recovery. The Helping Women Recover program can be implemented by a staff with a range of training and experience (Covington, 2008).

Helping Women Recover is widely used in addiction treatment programs, mental health clinics, eating disorder programs, and domestic violence services. There is a special edition for women in the criminal justice system. It provides specific information about women in correctional settings to staff members in such programs.

Beyond Trauma: A Healing Journey for Women

Beyond Trauma: A Healing Journey for Women also is designed for practitioners to use in any setting (outpatient, residential, therapeutic community, criminal justice, or private practice) to assist women in understanding trauma, its impact, and ways of coping. It includes a facilitator's guide, a workbook for women, facilitator training DVDs, and a client DVD.

The curriculum's eleven sessions cover topics such as the connections between violence, abuse and trauma; reactions to trauma; grounding skills; the mind-body connection; and healthy relationships. It draws on psychoeducational, cognitive-behavioral, expressive arts, mindfulness, and relational-therapeutic approaches to support a strengths-based framework responsive to women's gender-specific needs for healing and support. The *Beyond Trauma curriculum* can be used alone or in addition to the *Helping Women Recover curriculum*. It can expand and deepen the trauma work in the *Helping Women Recover curriculum*.

Healing trauma: strategies for abused women

This five-session intervention is designed for women who have been abused. There is introductory material on trauma for the facilitator and then detailed instructions (specific lesson plans) for the group sessions. The session topics include: the process of trauma, power and abuse, grounding and self-soothing, and healthy relationships. There is a strong emphasis on grounding skills.

Healing Trauma is an adaptation of *Beyond Trauma* (see description above). It is particularly designed for settings that require a shorter intervention, such as short-term addiction treatment, domestic violence agencies, sexual assault services, and jails.

The materials – a facilitator's guide and participant's workbook – are on a CD-Rom for ease of duplication (with the workbook in Spanish and English). They focus on the three core elements that staff members and clients need to know: an understanding of what trauma is, the process of trauma, and its effects on both the inner self (thoughts, feelings, beliefs, and values) and the outer self (behavior and relationships).

Voices: a program of self-discovery and empowerment for girls

Voices was created to address the unique needs of adolescent girls and young women. It encourages them to seek and celebrate their “true selves” by providing a safe space, encouragement, structure, and the support they need to embrace their journeys of self-discovery. The program includes modules on self, connecting with others, healthy living, and the journey ahead, which can be delivered in eighteen group sessions. Each session has an opening section, a teaching on a topic, an interactive element (e.g., discussion of issues, questions), an experiential component (activities to try out new skills and learning), and a closing section to facilitate reflection. The program’s theoretical foundations include theories of gendered psychological development, attachment, resilience, addiction, and trauma. Trauma is addressed in the program both explicitly and implicitly through attention to self-esteem, connections with others, body image, emotional wellness, good decision-making, and so on.

Voices is used in many settings (e.g., outpatient and residential substance abuse treatment, schools, juvenile justice, and private practice). It includes a facilitator’s guide and a participant’s workbook. The participant’s workbook utilizes an evidence-based process called Interactive Journaling®. In the context of girls’ lives, structured journaling provides an outlet for creativity, personal expression, exploration, and application of new concepts and skills.

A Woman’s Way through the Twelve Steps

A Woman’s Way through the Twelve Steps includes the original self-help book based on interviews with recovering women about their experiences and understanding of the Twelve Steps, plus a facilitators’ guide; a participants’ workbook; an app; and a DVD for clients, family members, and facilitators who want to learn how women and girls can utilize the Twelve Steps in a safe, nurturing way. (The self-help book and the workbook are available in English and Spanish.)

When offered as a thirteen-session program, *A Woman’s Way through the Twelve Steps* includes an opening session followed by one session for each of the twelve steps of Alcoholics Anonymous. It uses interactive activities to help women understand the principles or themes in each of the steps. Staff members who participate in the *A Woman’s Way* training groups are able to develop a deeper understanding of the basic tools for living embedded in the steps.

Beyond Violence: A Prevention Program for Criminal Justice-Involved Women

Beyond Violence: A Prevention Program for Criminal Justice-Involved Women was developed for women who commit violent or aggressive crimes. The curriculum consists of twenty sessions (two hours per session), and the program materials include a facilitator’s guide, a participant’s workbook, and a DVD. The focus is on the violence or aggression that the women have experienced as well as on what they have perpetrated. The interactive activities are based on cognitive-behavioral, relational, and experiential therapeutic approaches.

Beyond Violence uses a social-ecological model (Dahlberg & Krug, 2002) to contextualize and explain violence. This model considers the complex interplay between the individual, relationship, community, and societal factors that put people at risk for experiencing and/or perpetuating violence. Applying a gender lens to the social-ecological model results in a program that is specific to women's life experiences.

This is the first researched-based curriculum on this topic; it is suitable for use in domestic-violence agencies and community corrections as well as in institutional settings.

Beyond Anger and Violence: A Prevention Program for Women

This curriculum was developed for women who are struggling with the issues of anger and violence in their lives but are not involved in the criminal justice system. It is an adaptation of the *Beyond Violence* program and uses the social-ecological model to contextualize violence. It also incorporates information on gender differences in the expression and acceptability of anger. The focus is on both the anger and aggression that women feel and the aggression or violence they have experienced. The curriculum is designed for use in a variety of community-based settings, such as anger management programs, substance abuse treatment, domestic violence programs, VA hospitals, and other mental health settings.

Research on the curricula

One study of the "Women's Integrated Treatment" (WIT) model using *Helping Women Recover* and *Beyond Trauma*, with women in a residential program with their children, demonstrated a decrease in depression (using Beck's Depression Inventory) and trauma symptoms (using the Trauma Symptom Checklist – 40 scale) (Covington et al., 2008; SANDAG, 2007). The first forty-five days in treatment were used as an orientation phase. The decrease in symptomatology from admission to day 45 indicates the importance and potential impact of the treatment environment itself. The women then participated in the seventeen-session *Helping Women Recover* (HWR) program, followed by the *Beyond Trauma* (BT) program. There was a significant decrease in both depression and trauma symptoms at the completion of HWR ($p < .05$). There was further improvement ($p < .05$) when the women participated in the BT groups that followed HWR.

Empirical validation for HWR and BT was rigorously tested in two experimental studies funded by the National Institute on Drug Abuse (NIDA). Evidence from the first NIDA study shows significant improvement during parole among previously incarcerated women who were randomized to a women's integrated prison treatment program using HWR and BT sequentially, as compared to women who were randomized to a standard prison therapeutic community. Women who participated in the WIT program were significantly more likely to be participating in voluntary aftercare treatment services (25 percent versus 4 percent) and significantly less likely to be incarcerated at the time of

Training Group	Therapy Group
Focus is on: Learning as a group	Focus is on: Individual growth
Using the group for experiential learning by means of activities	Using the group to recreate family-of-origin dynamics
Having support from outside the group (for individual issues)	Using the group for support for individual issues
Sequential learning	Process

the six-month follow-up interview (29 percent versus 48 percent), compared to women who participated in the standard treatment (Messina & Grella, 2010). Another randomized study among women participating in drug-court treatment settings found that the women in the gender-responsive treatment group (using HWR and BT) had better in-treatment performance, more positive perceptions related to their treatment experience, and trends indicating reductions in PTSD (Messina et al., 2012).

Focus-group results also indicate strong support for and high satisfaction of the curricula mentioned above from drug-court and prison participants and staff (Bond & Messina, 2007; Calhoun, Messina, Cartier, & Torres, 2010; Messina & Grella, 2008).

Research projects also have been conducted on Beyond Violence. Short-term outcomes were examined in relation to mental health symptoms of anxiety, depression, serious mental illness, and post-traumatic stress disorder, as well as anger, aggression, and hostility. Short-term outcomes of the pilot of Beyond Violence demonstrated statistically significant improvements in women's mental health symptoms and reductions in anger as a result of the intervention. These results provide preliminary evidence of the success of the intervention in reducing mental health symptoms that often are common for women convicted of violent offenses, including sub-populations of women with life sentences and women meeting dual-diagnosis criteria (i.e., meeting criteria for a substance-use disorder and a mental health disorder). The research team is currently monitoring administrative data to determine if the successful short-term outcomes lead to longer-term reductions in recidivism and/or improvements in institutional behavior (Kubiak, Kim, Fedlock, & Bybee, 2012).

Based on the positive results of the piloting of Beyond Violence, a randomized control trial is underway was conducted comparing Beyond Violence to Assaultive Offender Programming at a state women's prison in the general population setting. The results show that women who participated in Beyond Violence have significant changes in measures of mental health symptoms and forms of anger expression.

Women who completed the BV intervention attended 97 percent of the scheduled sessions and reported high rates of satisfaction, as well as over 90-percent agreement that their needs were met and that they benefited from the material. Overall, women found the group experience transformative, and

many stressed that the group facilitated their becoming better persons; gaining accountability for the past, present, and future; and realizing self-worth (Kubiak et al., 2012).

Learning the curricula: staff development

If a treatment program uses a specific curriculum with women, one of the best ways to train staff members, supervisors, and administrators is to have them participate in the curriculum themselves as a group (Covington, 2012). This has been done in a variety of settings, including residential, outpatient, and correctional programs. An hour or an hour-and-a half session can be conducted in a weekly staff meeting or over lunch, with a different staff member facilitating each week. For the program director, these sessions offer a team-building tool and also help to reveal staff members' strengths and challenges.

When planning to implement this process, it is important to be able to explain the differences between a therapy group and a learning (training) group.

Providing treatment

Trauma can skew a woman's relational experiences and hinder her psychological development. Because it can affect the way a woman relates to staff members, her peers, and the therapeutic environment, it is helpful to ask, "Is this person's behavior linked to her trauma history?" However, traditional addiction and/or mental health treatment often does not deal with trauma issues in early recovery, even though it is a primary trigger for relapse among women and may be underlying their mental health disorders. Many treatment providers lack the knowledge and understanding of what is needed in order to do this work.

Here are three important things that can be done in treatment programs:

- Educate women as to what abuse and trauma are. Women often do not know that they have been abused. Nor do they have an understanding of PTSD.
- Normalize their reactions. It is important that women learn that their responses are normal, given their experiences. The DSM states that trauma responses are normal reactions to abnormal situations.
- Provide coping skills. There are grounding and self-soothing techniques (e.g., breathing exercises) that women can learn to help themselves cope with their traumatic experiences. (See Covington, *Beyond Trauma: A Healing Journey for Women* for specific techniques to use in individual and group therapy).

Avoid revictimization and retraumatization

A woman who has experienced a traumatic event also experiences increased vulnerability. She may have difficulty tolerating, expressing, and/or modulating her emotions. This results in what is called "emotional dysregulation." An example of this is when she over responds to neutral cues and under responds to danger cues. Therefore, traumatized women are at increased risk of similar, repeated revictimization. "Retraumatization" refers to the psychological and/or physiological experience of being "triggered." That is, a single environmental cue

related to the trauma – such as the time of year, a smell, or a sound – can trigger a full fight-or-flight response. Often, substance abuse treatment providers hesitate to provide trauma services for women in their programs because of the fear of “triggering” them. Triggers in the environment cannot be completely eliminated. Therefore, it is important to create a safe environment in which women can learn coping skills. This is the reason that the therapeutic environment is so important for women. They must feel safe.

Conclusion

Historically, substance abuse treatment programs were designed for the needs of predominantly male clients. Over the past three decades, researchers and treatment providers have begun to identify the characteristics and components of successful treatment programs for women. A solid body of knowledge has now been developed that reflects the needs of women in treatment, and there is both a definition of and principles for the development of gender-responsive treatment. Women’s exposure to violence has emerged as a critical factor in treatment. Therefore, it is imperative that substance abuse treatment services become integrated, incorporating what we have learned from relational-cultural theory (women’s psychosocial development), addiction theory, and trauma theory. Such a gender-responsive and trauma-informed program can provide the safe, nurturing, and empowering environment that women need to recover, heal, and find their inner strengths.

References

- American Psychiatric Association** (2000 2013). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text revision 5th ed.). Washington, DC: Author.
- Bloom, B., Owen, B., & Covington, S.** (2003). *Gender-Responsive Strategies: Research, Practice, and Guiding Principles for Women Offenders*. Washington, DC: National Institute of Corrections.
- Bond, K., & Messina, N.** (2007, June). Annual report for the enhancing substance abuse treatment and HIV prevention for women offenders. Submitted to the National Institute on Drug Abuse.
- Boyle, M., White, W., Corrigan, P., & Loveland, D.** (2005). Behavioral health recovery management: A statement of principles. <http://www.bhrm.org/papers/principles/BHRMprinciples.htm> [Accessed on February 14, 2013].
- Bureau of Justice Statistics.** (2000). *Sexual assault of young children as reported to law enforcement: Victim, incident, and offender characteristics*. Washington, DC: U.S. Department of Justice.
- Calhoun, S., Messina, N., Cartier, J., & Torres, S.** (2010, December). Gender-responsive treatment for women in a prison setting: Client and staff perspectives. *Federal Probation*, 74(3).
- Covington, S.** (1994). *A Woman's Way through the Twelve Steps*. Center City, MN: Hazelden.
- Covington, S.** (2003). *Beyond Trauma: A Healing Journey for Women*. Center City, MN: Hazelden.
- Covington, S.** (2004). *Voices: A Program of Self-discovery and Empowerment for Girls*. Carson City, NV: The Change Companies.
- Covington, S.** (2007). *Women and Addiction: A Gender-Responsive Approach*. Center City, MN: Hazelden.
- Covington, S.** (2008). *Helping Women Recover: A Program for Treating Addiction* (rev.). San Francisco: Jossey-Bass. (Also a special edition for the criminal justice system).
- Covington, S.** (2012). Curricula to support trauma-informed practice with women. In N. Poole & L. Greaves (Eds.), *Moving the Addiction and Mental Health System towards Being More Trauma-Informed*. Toronto: Centre for Addiction and Mental Health.
- Covington, S.** (2013). *Beyond Violence: A Prevention Program for Criminal Justice-Involved Women*. Hoboken, NJ: John Wiley.
- Covington, S.** (in press). *Beyond Anger and Violence: A Prevention Program for Women*. Hoboken, NJ: John Wiley.

Covington, S., Burke, C., Keaton, S., & Norcott, C. (2008, November). Evaluation of a trauma-informed and gender-responsive intervention for women in drug treatment. *Journal of Psychoactive Drugs, SARC Supplement 5*, 387-398.

Covington, S., & Kohen, J. (1984). Women, alcohol, and sexuality. *Advances in Alcohol and Substance Abuse, 4*(1), 41-56.

Covington, S., & Russo, E. (2011). *Healing Trauma: Strategies for Abused Women* (CD, Facilitator's Guide, & Workbook in English and Spanish). Center City, MN: Hazelden.

Dahlberg, L. L., & Krug, E. G. (2002). Violence: A global public health problem (pp. 1-56). In E. G. Krug, L. L. Dahlberg, J. A. Mercy, A. B. Zwi, & R. Lozano (Eds.), *World Report on Violence and Health*. Geneva, Switzerland: World Health Organization.

Fallot, R.D., & Harris, M. (2008). Trauma-informed services. In G. Reyes, J. D. Elhai, & J. D. Ford (Eds.), *The Encyclopedia of Psychological Trauma* (pp. 660-662). Hoboken, NJ: John Wiley.

Felitti, V. J., & Anda, R. F. (2010). The relationship of adverse childhood experiences to adult health, well-being, social function, and health care. In R. Lanius, E. Vermetten, & C. Pain (Eds.), *The Effects of Early Life Trauma on Health and Disease: The Hidden Epidemic*. New York: Cambridge University Press.

Felitti, V.J., Anda, R.F., Nordenberg, D., Williamson, D.F., Spitz, A.M., Edwards, V., Koss, M.P., & Marks, J.S. (1998, May). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine 14*(4), 245-258.

Grella, C. (1999). Women in residential drug treatment: Differences by program type and pregnancy. *Journal of Health Care for the Poor and Underserved, 10*(2), 216-229.

Grella, C., Joshi, V., & Hser, Y. (2000). Program variation in treatment outcomes among women in residential drug treatment. *Evaluation Review, 24*(4), 364-383.

Harris, M., & Fallot, R. (2001). *Using Trauma Theory to Design Service Systems*. San Francisco: Jossey-Bass.

Herman, J. (1997). *Trauma and Recovery* (rev.). New York: HarperCollins.

Jordan, J. (1991.) The meaning of mutuality. In J. Jordan, A. G. Kaplan, J. B. Miller, I. P. Striver, & J. L. Surrey (Eds.), *Women's Growth in Connection: Writings from the Stone Center*. New York: Guilford Press.

Jordan, J.V., & Hartling, L.M. (2002). New developments in Relational-Cultural Theory. In M. Ballou & L.S. Brown (Eds.), *Rethinking Mental Health and Disorders: Feminists Perspectives*. New York: Guilford Press.

Kaschak, E. (1992). *Endangered Lives: A New Psychology of Women's Experience*. New York: Basic Books.

Kendall-Tackett, K. (2005). Introduction: Women's experiences of stress and trauma. In K. Kendall-Tackett (Ed.), *Handbook of Women, Stress and Trauma*. New York: Brunner-Routledge.

Kubiak, S., Kim, W., Fedlock, G., & Bybee, D. (2012, October). Assessing short-term outcomes of an intervention for women convicted of violent crimes. *Journal of the Society for Social Work & Research*, 3(3), 197-212.

Messina, N., Calhoun, S., & Warda, U. (2012). Gender-responsive drug court treatment: A randomized control trial. *Criminal Justice and Behavior*, 39, 1539-1558.

Messina, N., & Grella, C. (2006). Childhood trauma and women's health outcomes: A California prison population. *The American Journal of Public Health*, 96(10), 1842-1848.

Messina, N., & Grella, C. (2008). Final report of the gender responsive treatment for women in prison project. Bethesda, MD: National Institute on Drug Abuse.

Messina, N., Grella, C., Cartier, J., & Torres, S. (2010). A randomized experimental study of gender-responsive treatment for women in prison. *Journal of Substance Abuse Treatment*, 38, 97-107.

Najavits, L., Weiss, R., & Shaw, S. (1997). The link between substance abuse and posttraumatic stress disorder in women: A research review. *American Journal on Addictions*, 6(4), 273-283.

Orwin, R., Francisco, L., & Bernichon, T. (2001). Effectiveness of women's substance abuse treatment programs: A meta-analysis. Washington, DC: National Evaluation Data Services, Center for Substance Abuse Treatment.

Quimette, P.C., Kimerling, R., Shaw, J., & Moos, R.H. (2000). Physical and sexual abuse among women and men with substance use disorders. *Alcoholism Treatment Quarterly*, 18(3), 7-17.

SANDAG (San Diego Association of Governments). (2007, April). Beyond trauma: Providing trauma-informed services to women in drug treatment. *CJ Bulletin*. http://www.sandag.org/uploads/publicationid/publicationid_1289_6687.pdf [Retrieved February 14, 2013.]

United Nations General Assembly. (1993). Declaration on the elimination of violence against women. A/RES/48/104. New York: United Nations. <http://www.un.org/documents/ga/res/48/a48r104.htm> [Retrieved February 14, 2013.]

United Nations Office on Drugs and Crime. (2004). Substance abuse treatment and care for women: Case studies and lessons learned. New York: United Nations Publications. (ISBN 92-1-148194-5. Sales No. E.04.XI.24.) www.unodc.org/pdf/report_2004-08-30_1.pdf [Accessed on February 14, 2013].

White, W., Boyle, M., & Loveland, D. (2002). Alcoholism/addiction as a chronic disease: From rhetoric to clinical reality. *Alcoholism Treatment Quarterly*, 20(3/4), 107-130. <http://smtp.williamwhitepapers.com/pr/2003Addictionaschronicdisease.pdf> [Retrieved February 14, 2013.]

Sexually assaulted women and substance use

Lluïsa Garcia Esteve, Ester Valls, Anna Torres, M. Luisa Imaz, Ester Roda

Programme for the Prevention and Treatment of Psychic Effects in Sexually Assaulted Women. Psychiatry and Psychology Service. Institute of Neurosciences. Hospital Clínic, Barcelona, Spain.

Introduction

The World Health Organization has declared violence against women as a priority public health matter, owing to its high prevalence, morbidity, and mortality. Physical, psychological and/or sexual assaults, whether exceptional or repeated, whether of high or low intensity, occasion irreparable losses in the biological, psychological, and social sphere of women (WHO, 49th World Health Assembly).

Health policies aimed at addressing violence against women have been principally focussed on physical, emotional, economic, and sexual abuse by a partner or ex-partner. However, in today's society other forms of violence against women exist. Sexual violence, practised by people who are known or strangers, with objectives such as domination, control and humiliation, is the most invisible and minimized form of violence. Three types of sexual violence have been defined:

- 1 Sexual assault, which is any act against the sexual liberty of another person using violence or intimidation. The most serious form is rape, which is defined as the introduction of the penis into the vagina, anus, or mouth, as well as digital penetration and the introduction of objects into the first two of the orifices mentioned.
- 2 Sexual abuse, which is the violation of the sexual liberty of another person, in which violence and intimidation are not used but deception, coercion. This includes abuse committed against people who cannot give valid consent due to their limited capacity for volition (minors, the mentally ill, the disabled).
- 3 Sexual harassment is the demand for favours of a sexual nature in which the harasser takes advantage of a situation of superiority in the workplace, as an educator, or similar. The refusal to accede means punishment and threats for the victim.

It is estimated that one in every five women will be sexually assaulted during her life. ("Prevalence, Incidence and Consequences of Violence", 1998). Even though sexual assault is one of the most frequent crimes committed against women, it is difficult to know the rates of incidence and prevalence in its various forms, due in part to social minimalization and banalization of the phenomenon (Ramos-Lira, Saltijeral-Méndez, Romero-Mendoza, Caballero-Gutiérrez and Martínez-Vélez, 2001). The data available to us indicate that between 15 and 25% of women are the objects of a sexual assault at some moment in their lives and that in young

women the figure is as high as 32% (Sipsma, Carboles, Montorio, and Everaed, 200; Fuertes, Ramos, Martínez, López and Tabernero, 2006). In 2007 in Spain a total of 7,000 sexual assaults were reported (IM, 2009). Rape is one of the most traumatic experiences of sexual assault and the most threatening to a woman's physical and psychological integrity (Echeburúa, Corral and Amor, 2002). The majority of rape victims present psychological alterations during the first weeks (Rothbaum, Foa, Riggs and Murdock, 1992) and between 50 and 70% will develop Post Traumatic Stress Disorder (PTSD) in the long term, with highly incapacitating consequences (APA, 1994) (Resnick, Acierno, Holmes, Kilpatrick and Jager, 1999).

Sexual violence is a crime that carries a heavy impact on the physical and psychological health of its victims, which must be treated and re-established from different settings (healthcare, social, judicial and law enforcement), and with strategies from public services, which are efficacious and avoid re-victimization. This treatment will mean the intervention in the short and long term, in a coordinated and interdisciplinary manner, of different healthcare, social, judicial, and law enforcement facilities and specialists. In order to deal correctly with the medical, social, and judicial problems derived from the assault, and to prevent or reduce their consequences, it is necessary to design a circuit of action in which professionals have the necessary training and sensitivity to not increase victimization, sense of blame, or disorientation.

The effects of sexual violence are produced on a physical and psychological level:

PHYSICAL HEALTH
Possibility of pregnancy Hepatitis B Contagion HIV Contagion Sexually Transmitted Diseases Tetanus Injuries and trauma Involuntary drug intoxication

Table 1. Physical health

PSYCHOLOGICAL HEALTH
Reaction due to acute stress Posttraumatic stress disorder Sexual dysfunctions Depressive disorders Anxiety disorders Suicide attempts Substance abuse Executive dysfunction Changes to functioning Changes in interpersonal relationships

Table 2. Psychological health

The principal risk factor to be a victim of a sexual assault is being a woman. There is no specific profile of woman; we frequently find women of varying ages, cultures, and occupations who need treatment to relieve the pain and the effects produced by the act committed against them.

In order to address this reality, in 1994 the Hospital Clínic of Barcelona (HCB) signed an accord with judicial, law enforcement, and social entities in

Barcelona through which it was accorded the qualification and responsibility for constituting the reference centre in emergency care for women who are victims of sexual assault and/or sexual abuse in the city.

By this accord, emergency care for sexually assaulted women in Barcelona is centralized in the Emergency Services of the HCB, where the necessary professional teams, such as police, forensic doctors, and healthcare specialists, can be found.

Subsequently, the victim is offered the chance to attend the Programme for the Prevention and Treatment of Psychic Effects in Sexually Assaulted Women (AGRESX-TEPT), in the Psychiatry and Psychology Service of the HCB.

In this chapter there is a brief description of the HCB programme of integral treatment of victims of sexual assault, the phenomenon of drug-facilitated sexual assault, and the HCB programme's experience. At the end of the chapter specific recommendations are proposed.

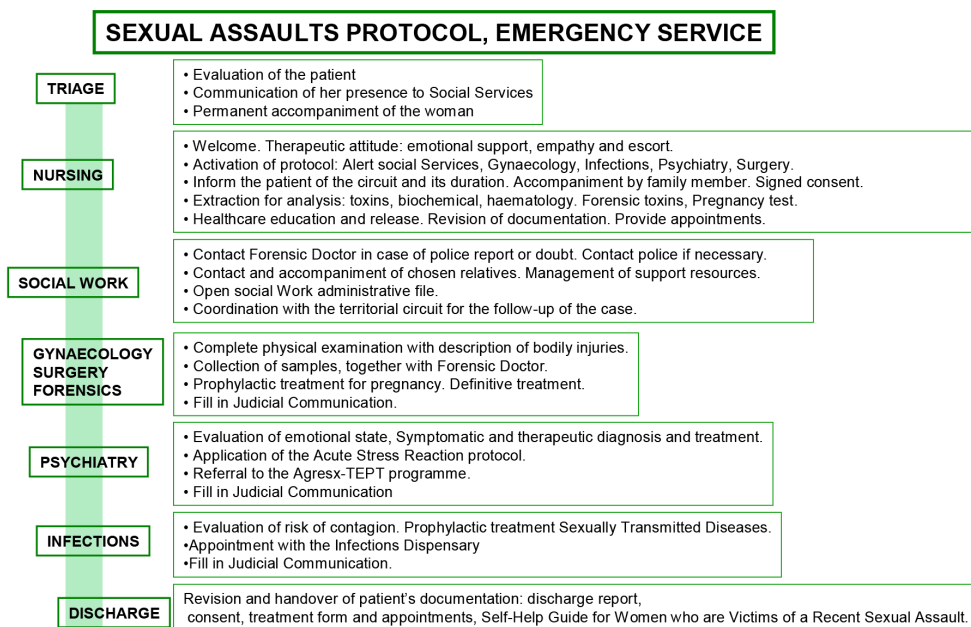
Hospital care and assistance programme for the sexually assaulted woman

Recently the Commission for Intrafamily and Gender Violence (VIG) at the HCB designed a treatment protocol for the emergency care of victims of sexual assault, giving special attention to the aspects of health that have been particularly affected by the assault (gynaecological, infectious, surgical and psychiatric) and the judicial aspects (the duty court is informed, and there is a visit by the forensic doctor in emergency services and by the police). Subsequently, the Programme for the Prevention and Treatment of Psychic Effects in Sexually Assaulted Women (AGRESX-TEPT) was established in 2006 in order to offer information and counselling to women who have suffered from sexual assault and who wish to treat any possible psychological after-effects, such as post traumatic stress disorder (PTSD) or depressive disorder, and to return to normal functioning.

The first attention is carried out at the emergency services of the hospital, which has a specific circuit of immediate attention in a protocol-based setting. The treatment circuit consists of various professionals who are trained to perform in a quick and coordinated way that avoids re-victimization. The attention circuit and the principal functions of each professional are shown in Figure 1.

Throughout the process the patient must remain accompanied, and the procedure by which she will receive integrated treatment will be explained to her, as will the visits by professionals. She will also be offered the opportunity to report the offence to the police. At the moment of discharge from hospital the patient is given a self-help guide for women who are victims of a recent sexual assault, which was created by the professionals of the AGRESX-TEPT programme based on experiences of other patients, as an information and support tool to favour self-healing and the restoration of psychological well-being (<http://blog.hospitalclinic.org/es/2009/05/guia-dautoajuda-agresiones-sexuales>).

The Emergency Service of HCB deal with an average of approximately 200 sexual assaults a year. The majority (91%) of people who attended the Emergency



Source: <http://www.intra.csc.es/vig/castellano/guia/buxaca.pdf> | Memòria Comissió de Violència Agressions Sexuals 2012 (press)
Adapted for the programme Agresx-TEPT.

Figure 1. Treatment Protocol for Sexual Assaults in the HCB Emergency Service

Service as victims of sexual assault are women (VIG, 2011). The demographic data and characteristics women attended during 2011 in the Emergency Service of the HCB can be seen in Table 3.

Experience shows that the majority of women who are victims of a sexual assault experience psychological symptoms during the first few weeks, with alterations to their sleep, appetite, mood, and habitual functioning. The psychological impact may include everything, from an immediate emotional reaction in the form of acute stress to consolidated psychiatric disorders such as PTSD or depressive disorder, changes in lifestyle such as increased substance use, and profound changes in personality, functioning, and interpersonal relationships. It is considered that early intervention can reduce possible psychological reactions and prevent them from becoming chronic disorders.

The Psychiatry and Psychology Service of the HCB has an interdisciplinary team of professionals from the areas of psychiatry, psychology, social work, and nursing, specializing in psychiatric and psychological disorders associated with stress as a consequence of a sexual assault. This is a programme of brief intervention, aimed at women who have been victims of a sexual assault in the last three months. The treatment objectives are to: a) offer information and support; b) reduce the initial psychological reaction; c) prevent psychic side effects; d) treat psychiatric disorders, such as depressive and post-traumatic disorders; e) re-establish the social area of the patient; and f) recover the patient's prior quality of life and functioning.

Reasons for suspecting that it was under the effects of a drug
<ul style="list-style-type: none"> ▪ Total anterograde amnesia. ▪ Partial anterograde amnesia. ▪ Conscious paralysis (Immobilized but awake). ▪ Loss of consciousness or blacks outs. ▪ Inarticulate speech. ▪ Blurred vision. ▪ Drowsiness. ▪ Confusion. ▪ Sensation of "hangover" or symptoms inconsistent with the quantity of alcohol or drugs consumed. ▪ Disinhibition. ▪ Delirium or hallucinations. ▪ Altered judgement. ▪ Dizziness. ▪ Psychomotor alterations. ▪ Nausea or vomiting. ▪ Has acted in a way inconsistent with her personality and/or the quantity of alcohol and/or drugs ingested.

Sociodemographic data and sexual assault's characteristics of the women attended in the AGRSX-TEPT Programme during the year 2011
<ul style="list-style-type: none"> ▪ Spanish (47%), foreigners (53%) ▪ Single (75%) and without children (78%) ▪ Aged 18-25 (47%) ▪ Medium/high level of studies (71%) ▪ Working 49%, Studying 29% ▪ Personal psychiatric history (28%) ▪ History of consumption of abused substances (18%) ▪ History of alcohol abuse or dependence (11%) ▪ Intellectual disability (3%) ▪ 63% consumed alcohol prior to the assault, 17% other drugs ▪ 34% believed themselves to be involuntarily under effects of some drug ▪ 50% of assaults occur at home, 25% in the public thoroughfare, 7% in leisure areas, 2,4% in the workplace ▪ In 67% the mechanism of the assault is vaginal, 5% anal, 3% oral, 11% toughing ▪ In 62,6% the assailant is unknown, 8% partner or ex-partner, 5% friend, 3% relative, 1% colleague ▪ 82% make a police report

Table 3. Sociodemographic data and sexual assault's characteristics of the women attending.

In the first days after the assault the programme's nurse actively contacts the women within the first days after the emergency visit (by telephone) to offer them support and providing a link to the programme to receive assistance. The intervention is carried out in three phases (figure 2): stabilization, processing of the trauma, and integration and rehabilitation (Herman, 1997). In the event that there is significant post traumatic symptomatology, a specific psychiatric and psychological intervention will be carried out, making use of psychopharmacology and the psychological techniques that have shown greatest efficacy for the treatment of PTSD (prolonged

exposition (Foa, Hembree, & Rothbaum, 2007), cognitive processing therapy (Resick & Schick, 1993) and eye movement desensitization and reprocessing (Shapiro, 201). Furthermore, the patient's substance use will be monitored systematically, using motivational techniques aiming to reduce her consumption habits.

Sexual assault and substance use

The consumption of alcohol and drugs is often intimately related to sexual conduct. Voluntary consumption of alcohol and drugs of young women in Spain is currently rising in prevalence (Household drug survey, 2009).

According to data corresponding to victims of sexual assaults during the year 2009-2011 at the Emergency Services of the HCB, approximately two thirds (63%) of sexually assaulted women had consumed alcohol and/or drugs in the hours immediately before the assault. 40% of the women had consumed only alcohol or alcohol in combination with other drugs, 20% cannabis, 18% cocaine, 15% benzodiazepines, 7% amphetamines and derivatives, and 2% methadone and opiates. 27% had consumed more than one substance (Valls, et al., 2011; HCB'S non-published data). (Figure 3).

Drug Facilitated Sexual Assault (DFSA)

Drug Facilitated Sexual Assault (DFSA) occurs when the victim of a sexual assault is hindered from giving her consent to sexual relations or from offering resistance to an aggressor, because she is under the effects of alcohol and/or other drugs (whether their administration is voluntary or forced). DFSA may pass unnoticed by healthcare staff and it may causes alarm when reported to the media.

Presently two types of DFSA are recognized: proactive and opportunist. Proactive DFSA refers to a situation in which the assailant gives an incapacitating or disinhibiting substance to the victim, with the objective of subjecting her sexually. Opportunist DFSA occurs when the assailant maintains sexual activity with a person whose level of consciousness is diminished as a consequence of an acute intoxication, voluntary and/or involuntary (Howarth, 2005).

More than 50 different substances have been identified in the commission of DFSA (SOFT, 2007). The most commonly used drugs are ethyl alcohol, benzodiazepines, gammahydroxybutyric acid (GHB), cannabinoid derivatives, hypnotics such as zolpidem, zopiclone, fentanyl, LSD (lysergic acid diethylamide), atropine, and scopolamine ("burundanga"). Compared to other types of sexual assault, victims of DFSA suffer from a longer period of latency, receive less assistance from law enforcement agencies, and DFSA is associated with a lower incidence of genital and extragenital injuries (McGregor et al., 2003). Women under the age of 20 are particularly vulnerable to this form of sexual assault (McGregor et al., 2004).

In Spain, epidemiological studies on the prevalence and incidence of DFSA do not exist. Yet based on statistics from other countries, it can be expected that more than 20% of sexual assaults are cases of DFSA. In Catalonia, there is a growing interest among professionals from various disciplines in DFSA and its incidences in Spain, and different documents have been developed on protocols



Figure 2. Phases of the interdisciplinary intervention on the consequences of sexual assault in the AGRESX-TEPTProgramme

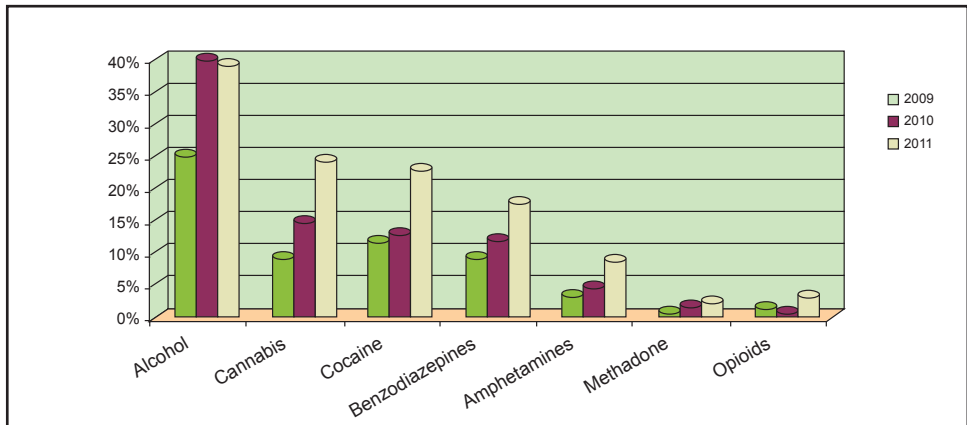


Figure 3: Detection of abused drugs in toxicological analysis at HCB Emergency Services during the years 2009-2011 (Valls et al, 2011; HCB'S non-published data).

of multidisciplinary healthcare action (Commission for Intrafamily and Gender Violence, HCB, 2013) and forensic action (Xifro et al., 2012).

Indicators for Suspicion of Drug Facilitated Sexual Assault

Suspicion of DFSA will be based on the clinical information of the anamnesis, physical and psychological examination, manifestation of consumption of abuse drugs and/or psychopharmacological substances during the hours prior to the assault and on the results of toxicological analysis.

It must be borne in mind that the non-detection of alcohol, psychopharmacological substances and/or other abused drugs in a biological

Reasons for suspecting a sexual assault

- Light sensation that there has been a sexual act.
- Waking up with dishevelled clothing, or finding oneself without clothes.
- Unexplained apparition of bodily fluids (semen) or strange materials (condoms) on or near the body.
- Unexplained genital, anal or oral bleeding or haematoma.
- Unexplained wounds to the body (scratches, haematoma)
- Waking up with an unknown person in the bed or in a strange place.
- Witnesses who have seen the victim in compromising circumstances that she does not remember.
- Thinking that she has been sexually assaulted.

Table 4. Indicators for suspicion of drug facilitated sexual assault (adapted from Du Mont et al., 2009)

sample from a victim of sexual assault does not necessarily mean that a DFSA has not occurred. A delay in the taking of biological samples may give a negative toxicological result due to the time that has passed between the consumption of the substances and the performance of the test.

A positive toxicological result will support the suspicion of DFSA, although the results of the anamnesis and complementary examinations will have to be taken into account (García-Respetto, 2011).

Clinical Presentation of Drug Facilitated Sexual Assault

In cases of DFSA, the accounts given by the women who are victims have points in common. It is usual that the victim attends the emergency services and mentions having been at a party, a bar or a disco, having taken alcohol and/or other drugs, explains a sudden feeling of intoxication, as well as a loss of bodily control, and does not remember anything about what has happened. In the physical examination few genital and extra-genital injuries are found, possibly due to the conditions in which the assault happens, a low state of consciousness, immobilization and the inability to defend herself.

The clinical symptoms which are presented are unspecific and may bring to mind those of an ethyl intoxication or an organic disorder, and for this reason the DFSA may pass unnoticed. Symptoms such as total or partial amnesia, automatic conduct, spatial and temporal disorientation, behavioural disinhibition or automatic conduct, drowsiness, associated or not with the sensation of nausea and vomiting, headache, vaginal/anal discomfort, the presence of unexplained injuries and/or haematoma and the woman's suspicion of having had sexual relations unconsciously, should alert the team of emergency professionals that they may be dealing with a possible case of DFSA (Cruz-Landeira and cols., 2008).

Substances Involved in Drug Facilitated Sexual Assault

The substances that may be used in DFSA have some common characteristics that make them suitable for the end pursued by the assailant, which is no other than to diminish the capacity for volition and resistance of the

victim. They tend to be substances whose action is rapid but of short duration, odourless, colourless and insipid, active at low dosages and easy to obtain. They are usually substances that depress the central nervous system such as alcohol and benzodiazepines. Illegal abused substance whose use is more frequent in a recreational context, such as cannabis, cocaine, GHB and ketamine, have also been known to be involved.

Biological matrices useful in the detection of voluntary or involuntary consumption of abused substances

In the year 2003, the French Society for Toxicological Analysis (SFTA, 2003) agreed on a protocol which was broadly accepted at international level, which establishes that in the study of DFSA samples of blood, urine and hair must be collected systematically.

Blood is a biological matrix that gives information about recent consumption of a substance (between 6 and 48 hours) and allows the establishment of correlations between the concentration in the blood and clinical symptoms.

Urine gives information about recent consumption, and offers the advantage of a wider window of detection than blood, which makes it very useful for the detection of substances that may appear in the urine up to a week after their ingestion (cannabis derivatives and benzodiazepine metabolites).

It must be taken into account that the times of detection of these substances in blood and urine will depend fundamentally on the dose administered and the sensitivity of the analytical method used.

In situations in which a collection of samples is not performed immediately after the sexual assault or the victim does not report the offence until weeks or months after suffering the sexual assault, the multi-sectional analysis of hair may be useful for the retrospective investigation of consumption and in the differentiation between an acute exposure and chronic use of a specific substance (SOHT, 2008).

Sweat can be a complementary biological matrix: it is considered substances can be detected between 3 and 7 days after the assault (SOFT, 2007).

Occasionally used non-biological samples related to the victim such as drugs found at the scene of the assault, objects used by the victim (glasses and bottles), as well as foodstuffs or drinks suspected of being used to commit DFSA, may also complement the toxicological investigation.

Approach to the phenomenon of Drug Facilitated Sexual Assaults in the city of Barcelona

Since the start of the AGRESX-TEPT Programme, we have detected that there were a group of women attending the Programme with a similar physical symptomatology, unable to remember some or all of the assault, and with an emotional reaction which was more affective than post traumatic. This was a group of women with indicators of drug facilitated sexual assault (DFSA). We considered the need to study this phenomenon in order to discover the prevalence, incidence and prognostic characteristics of the evolution from the initial emotional reaction to PTSD or a major depressive episode.

The sample that we present was taken at the emergency service of the HCB during the months from June 2010 to December 2012. All the women aged 18 or over who were attended at the emergency service of the HCB for suspected sexual assault were included. We have excluded women with difficulties of language comprehension in the completion of the self-administered questionnaires.

During the time at the emergency service sociodemographic information, clinical variables and information about the sexual assault were gathered following a protocol. The anxiety and degree of distress during and immediately after the sexual assault were evaluated. The criteria of the Canadian research team were applied for the classification of the case as drug facilitated sexual assault (DFSA) versus non-drug facilitated sexual assault NDFSAs (Du Mont et al. 2009), Table 4.

The final sample is composed of 199 women. The 54% of the women attended by the Emergency Service have been classified, following the indicators for suspicion, as having suffered a drug facilitated sexual assault. In the comparison of both sub-populations (DFSA vs. NDFSAs), we can observe some significant differences which are listed in Table 5.

DFSA (n=108)	NDFSAs (n=91)	Sig.
68% unknown assailant	52% unknown assailant	<.001
0,9% partner involved	26% partner involved	
30,6% known	22,2% known	
0,9% physical violence	7,8% physical violence	ns
82,4% vaginal	70% vaginal	<.01
8,3% anal	17,8% anal	<.05
41% go to emergency services on own initiative	16% go to emergency services on own initiative	<.001
67% referred to emergency services by police	38% referred to emergency services by police	
Time of arrival at emergency services between 16:00 and 00:00	Time of arrival at emergency services between 00:00 and 08:00	<.01
Peritraumatic symptoms 26,37 (9,33)	Peritraumatic symptoms 30,53 (11,47)	<.05

Table 5. Bivariant analysis between drug facilitated sexual assaults (DFSA) and non drug facilitated sexual assaults (NDFSAs). Analysis between DFSA and NDFSAs

Our data point to the definition of a profile of drug facilitated sexual assault (DFSA) which is characterized by occurring predominantly in young women, aged 18 to 25, who attend Emergency Services on their own initiative, between the hours of 16.00 and 24.00, more usually at weekends, who relate that the assailant is an unknown man and the main type of assault is vaginal. They report having consumed, prior to the assault, principally alcohol and to a lesser degree cannabis and cocaine, which corresponds to the profile of consumption for recreational use. They report that they do not remember anything from a particular moment onwards, or having partial recollections in the form of flashbacks (total or partial anterograde amnesia). They report nausea, vomiting, headaches, genital discomfort and the perception of having unconsciously had sexual relations. The evaluation of peritraumatic symptomatology at the moment of the visit to the Emergency department showed a lower intensity. Moreover, the assault occurs with less physical violence, possibly due to the diminished state of consciousness of the victim and her inability to defend herself.

Summary and recommendations

- Between 20% and 50% of sexual assaults could be catalogued as cases of drug facilitated sexual assault, due to the voluntary or involuntary exposure of the victim to some psychoactive substance which produces a diminishment in the state of consciousness. Her free will and the ability to defend herself become nullified.
- A high percentage of victims of DFSA admits previous voluntary consumption of some psychoactive substance.
- The voluntary consumption of alcohol, psychopharmacological substances or drugs of abuse increases significantly the risk of suffering a sexual assault.
- Healthcare staff in general should be familiar with this phenomenon, and more specifically those who have to assist victims, such as the staff of the Emergency Services, primary care or gynaecology, infections, psychiatry, psychology, nursing and social work.
- Detection of DFSA is made more difficult by the delay in requesting help on the part of the victim and the covering up of the symptomatology presented by an acute ethyl intoxication.
- Negative results in the presence of alcohol, psychopharmacological substances or other abused substances in a biological sample do not permit us to rule out the possibility of a drug facilitated sexual assault.

The current lack of visibility of sexual violence in general and the phenomenon of DFSA makes evident the need to:

- Promote their detection and treatment, offering adequate training in gender violence and sexual violence to professionals of the healthcare network.
- Raise awareness in the general population and particularly women about the risk of sexual assault, associated with the voluntary or involuntary consumption of abused substances.
- Promote primary preventive actions in the at-risk population (actions in nightlife venues, information campaigns in the youth population).
- Increase research on sexual violence. Carry out studies to improve knowledge about the prevalence, groups at risk, and the different abuse substances associated with DFSA, and the consequences on physical and social health.
- Provide educational materials accessible to the vulnerable population, with indications to be taken into account related with substance use and with interpersonal relationships, aimed at the female and male population.
- Promote the transversal nature of the gender perspective in the programmes of the healthcare network to foment detection, intervention and referral to specific programmes.

Acknowledgements

To Lidia Segura and Joan Colom, of the Program on Substance Abuse, Public Health Agency of Catalonia. To the Director Plan of Mental Health and Addictions of the Government of Catalonia, General Directorate of Planning and Evaluation, Department of Health. To the Circuit “Barcelona against Women’s Violence” at the Barcelona Healthcare Consortium . To the Commission for Intrafamily and Gender Violence (VIG) of the Hospital Clínic, Barcelona. To the professionals of the Emergency Service of the Hospital Clínic, Barcelona. To Dr. Santi Nogué and the Toxicology Section at the Hospital Clínic, Barcelona. To all the women victims of a sexual assault who have given us their testimony and have trusted our Programme.

References

American Psychiatric Association. (2004). Diagnostic and statistical manual of mental disorders (4th ed., text rev.). Washington, DC: American Psychiatric Association.

Brunet A, Weiss DS, Metzler TJ, Best SR, Neylan TC, Rogers C, Fagan J, Marmar CR. The peritraumàtic distress inventory: a proposed measure of PTSD criterion A2. *Am J Psychiatry* 2001; 158: 1480-1485.

Comissió de violència intrafamiliar i de gènere del Hospital Clínic. Guia assistencial de la violència sexual hospital clínic de Barcelona. Available at: <http://www.hospitalclinic.org/HospitalClínicdeBarcelona/ComisionesyComit%C3%A9sAsistenciales/ViolenciaIntrafamiliardeG%C3%A9nero/tabid/871/language/en-US/Default.aspx>

Comissió de violència intrafamiliar i de gènere de l'Hospital Clínic (VIG). Memòria 2011 de la Comissió de Violència Intrafamiliar i de Gènere. Available at: <http://www.hospitalclinic.org/LinkClick.aspx?fileticket=1hTxDAzwqU8%3D&tabid=871&language=es-ES>

Cruz-Landeira A, Quintela-Jorge O, López-Rivadulla M. Sumisión química: epidemiología y claves para su diagnóstico. *Med Clin (Barc)* 2008; 131: 783-9.

Du Mont J, Macdonald S, Rotbard N, Asllani E, Bainbridge D, Cohen M.M. Factor associated with suspected drug-facilitated sexual assault. *CMAJ* 2009; 180: 513-519.

Echeburúa, E., de Corral, P., & Amor, P. (2002). Evaluación del daño psicológico en las víctimas de delitos violentos. *Psicothema*, 14, 139-146.

Foa, E., Hembree, E., & Rothbaum, B. (2007). Prolonged Exposure Therapy for PTSD: Emotional Processing of Traumatic Experiences Therapist Guide. New York: Oxford University Press.

Fuertes, A., Ramos, M., Martínez, J.L., López, D., Tabernero, C. (2006). Prevalencia y factores de vulnerabilidad y protección de la victimización sexual en la relaciones con los iguales en las mujeres Universitarias Españolas. *Child Abuse & Neglect*, 30, 799-814.

García-Esteve LL, Navarro P, Imaz ML, Salanova C. Guia de autoayuda para mujeres víctimas de una agresión sexual reciente. Programa de Prevención y Tratamiento de las Secuelas Psíquicas en Mujeres Víctimas de una Agresión Sexual. Available at: <http://blog.hospitalclinic.org/es/2009/05/guia-dautoajuda-agressions-sexuals>

García-Repetto R, Soria ML. Sumisión química : reto para el toxicólogo forense. *Rev Esp Med Legal* 2011 ; 37 : 105-112.

Guia assistencial de la violència sexual. Comissió de Violència Intrafamiliar i de Gènere. Hospital Clínic, Barcelona. [citado el 12.04.2013]. Available at: <http://www.intra.csc.es/>

Herman, J. Trauma and recovery The aftermath of violence - from domestic abuse to political terror. 2^a ed. New York. Basic Books, 1997.

Horwath M, Brown J. Drug assisted rape and sexual assault: definitions, conceptual and methodological developments. *J Investigative Psychology Offender Profiling* 2005 ; 2 : 203-10.

Instituto de la Mujer. (2009). Delitos conocidos de abuso, acoso y agresión sexual. Recovered on 9th November 2009 from the website of the Instituto de la Mujer: <http://www.inmujer.es/estadisticas/consulta.do?area=10>.

McGregor MJ, Lipowska M, Shah S. Du Mont J, De Siato C. An exploratory analysis of suspected drug-facilitated sexual assault seen in a hospital emergency department. *Women Health* 2003; 37: 71-80.

McGregor MJ, Erickson J, Ronald L, Janssen PA, Van Vliet A, Schulzer M. Rising incidence of hospital reported drug-facilitated sexual assault in a large urban community in Canada. Retrospective population-based study. *Can J Public Health.* 2004;95:441-5.

Organización Mundial de la Salud. 1996. La 49^a Asamblea de Salud Mundial (WHA49.25). Prevención de la violencia: una prioridad de salud pública. Sixth Plenary Session.

Prevalence, incidence, and consequences of violence against women: Findings from the National Violence Against Women Survey (NCJ #172837). (1998). Washington, DC: National Criminal Justice Reference Service.

Ramos-Lira, L., Saltijeral-Méndez, M.T., Romero-Mendoza, M., Caballero-Gutiérrez, M.A., & Martínez-Vélez, N.A. (2001). Violencia sexual y problemas asociados en una muestra de usuarias de un centro de salud. *Salud Publica Mexicana*, 43, 82-191.

Resick, P. A., & Schnicke, M. K. (1993). Cognitive processing therapy for rape victims: A treatment manual. Newbury Park, CA: Sage.

Resnick, H., Acierno, R., Holmes, M., Kilpatrick, D., & Jager, N. (1999). Prevention of post-rape psychopathology: Preliminary findings of a controlled acute rape treatment study. *Journal of Anxiety Disorders*, 13(4), 359-370.

Rothbaum, B., Foa, E., Riggs, D., & Murdock, T. (1992). A prospective examination of post-traumatic stress disorder in rape victims. *Journal of Traumatic Stress*, 5(3), 455-475.

Shapiro, F. (2001). Eye Movement Desensitization and Reprocessing: Basic Principles, Protocols and Procedures (2nd ed.). New York: Guilford Press.

Sipsma, E., Carboles, J.A., Montorio, I., & Everaed, W. (2000). Sexual Aggression Against Women by Men Acquaintances: Attitudes and Experiences among Spanish University Students. *The Spanish Journal of Psychology*, 3(1), 14-27.

Société Française de Toxicologie Analytique (SFTA). Consensus soumission chimique. Soumission chimique: prise en charge toxicologique. *Ann Toxicol Anal.* 2003;15:239-42.

Society of Forensic Toxicologists (SOFT). Drug facilitated sexual assault Committee: recommended maximum detection limits for common DFSA drug and metabolites in urine samples. [citado 12 Abr 2013]. Available at: <http://www.soft-tox.org/DFSA>

Society of Hair Testing (SoHT). Recommendations for hair testing in forensic cases. [citado 12 Abr 2013]. Available at: <http://www.soht.org/Consensus on Hair Analysis>

Valls, E., Garcia-Esteve, Ll., Torres, A., Pérez del Olmo, M., Roda, E., Céspedes, F., Rodríguez, D., Vázquez, M., Subirà, S., Imaz, M. L. Sexual assault: toxicological and psychopathological findings: A preliminary data. Poster presented at the 4th World Congress on Women Mental Health, Madrid, 2011.

Xifró A, Barberia E, Pujol A, Arroyo A, Bertomeu A, Montero F. Sumisión química: guía de actuación médico-forense. *Rev Esp Med Legal.* 2012. <http://dx.doi.org/10.1016/j.reml.2012.11.003>

Family-based recovery: the SHIELDS for families “Exodus” programme

Kathryn Icenhower

Chief Executive Officer of SHIELDS for Families, Los Angeles, (CA), USA

Introduction

The SHIELDS for Families' Exodus Therapeutic Community is a unique model in which comprehensive family-centered treatment, follow-up, and related social services are provided within an 86-unit apartment complex. It is currently the only program in the United States that allows for the entire family unit to live in the treatment environment in individual family apartments. Treatment, child development and youth services, case management and vocational services are offered on-site at the facility. A maximum of 45 families are active in treatment at any given time. After completion of treatment services (12-24 months), families are able to remain in their housing for a transitional period of up to one year, allowing for adequate time to develop vocational, educational and/or supportive systems necessary for ongoing recovery and family maintenance. This article describes the treatment model, the array of primary treatment interventions, and the parallel services provided to children and youth.

Treatment model

The Exodus Program accepts clients from throughout Los Angeles County, although clients are primarily from the Compton and Watts communities in South Central Los Angeles where the program is located. The majority of clients are referred from the Department of Children and Family Services (55%) or are self referrals (30%). Currently, approximately 45% of the clients are African-American and 50% are Latina. The primary drugs of choice are cocaine and methamphetamine, with marijuana as the secondary drug of choice. One hundred per cent of clients are homeless at admission, less than 30% have a high school diploma and 95% have experienced significant trauma in their lifetime including physical and sexual abuse and domestic violence.

Upon admission to the program, clients sign a contract for treatment services and a lease agreement for their housing. Women who lease apartments assume responsibility for payment of rent. Comprehensive psychosocial assessments are conducted on each woman and their family members within 30 days of admission. Psychosocial assessments include: family, drug history, medical, legal, vocational, education and mental health information. Additionally, clients receive medical, psychological and vocational assessments, as well as psychiatric evaluations when indicated. A treatment plan is developed by the primary counselor and

the client along with her family and/or significant others, in conjunction with the multidisciplinary treatment team. Treatment plans are reviewed and updated every 90 days for the length of the program. Clients are provided and/or referred to services as indicated through the development of the treatment plan to ensure the comprehensive needs of families can be met. Clients are maximally involved in all aspects of their treatment plan and program services. As clients progress through the program they are provided the opportunity to serve as peer counselors for new clients. Clients are also asked to participate in program planning to ensure that services provided are sensitive and relevant to their needs.

Treatment services

The provision of adequate, comprehensive, family focused services assists in creating the elements necessary for the family to survive. The program philosophy incorporates maximum client participation, flexibility, availability, and accessibility of services which assists with client retention in the program. The comprehensive services provide families with a supportive framework in which to grow and develop, while providing essential services to ensure healthy outcomes for mother and child.

Services include:

Individual Counseling - Individual counseling sessions are designed to allow the primary counseling staff to evaluate the total patient status (strengths and problems), assist the client (in conjunction with the treatment team) with individualized recovery, aftercare, and discharge planning, facilitate program interpretation and understanding, provide crisis intervention, and facilitate problem solving. All clients receive individual counseling a minimum of once per week. Crisis intervention services, as well as a 24-hour hotline are available for addressing situations that present an imminent risk to the client and/or her family.

Family/Collateral Counseling - Experts who have studied families with a problem of addiction have discovered that family members react to the situation with similar patterns, taking on roles in the family unit that assist them with “managing” the addictive lifestyle. The dysfunction experienced by such families is commonly referred to as co-dependency. Leaders in the field have identified that the entire family, not only the addict, is in need of recovery. Additionally, the client’s recovery is often dependent upon the recovery of the entire family unit and their understanding and awareness of this disease. Family counseling sessions and family education groups are provided a minimum of once per week.

Group Counseling - Group counseling sessions focus on assisting the clients and family members to deal with psychological, social, and economic issues that contributed to or may have developed as a result of the client’s substance abuse. The groups are designed to provide participants an environment conducive to self-examination and change, and to obtain objective and non-judgmental feedback on their behaviors, attitudes, feelings, and methods of relating to themselves and others. Groups focus on a variety of issues including self-awareness, self-worth/self-esteem, self-discipline, social skills, sensitive treatment issues as they relate specifically to women, including child and/or adult physical abuse and/or sexual

abuse, and acceptance of counseling for problem areas. Program services include the following groups: women's issues, trauma, grief and loss, sexual abuse, and domestic violence.

Mental Health Services - A full range of mental health services is provided on site by three full-time therapists. This includes individual, group, and family therapy, psychological and psychiatric evaluations, and medication support.

Case Management - Case management is an interactive, interpersonal process that involves: (a) assisting the family with identifying, accessing, and linking them to needed services; (b) organizing and integrating the services into the family treatment plan (c) working with the treatment team to ensure that services are coordinated; and (d) negotiating and bargaining for services on behalf of the family.

Life Skills - Training is provided to help develop skills in the areas of problem solving, stress reduction, life management (including financial planning and social skills development), and time management.

Health Education - Educational groups are provided to all clients on health and nutrition, AIDS, tuberculosis, STDs, drugs and alcohol, as well as family planning. Topics include general health education and hygiene (with an emphasis on women's and children's issues), drug and alcohol abuse education, relapse prevention and recovery issues, nutrition, and AIDS education.

Family Reunification - Family dynamics or issues present significant problems for women in treatment and are often precursors for relapse for mothers, and behavioral and school problems for children. To respond to the issues that arise with the reunification process, a family focused group is provided specifically for those families who are entering into or preparing for reunification.

Family Support - Substance abuse affects the entire family of the identified client. Therefore, in order to treat the client, the entire family must be treated. Family members, including children, are offered the opportunity to participate in family therapy. In addition, significant others are provided an on-site weekly support group and/or individual counseling. Referrals are provided to family members for services not provided by SHIELDS. In addition, children of clients, whether in their custody or not, are given the opportunity to participate in child development or youth program services.

Relapse Prevention - Relapse prevention strategies are integrated into the educational curriculum provided at the apartment complex, as well as being an integral part of individual and group counseling. Specific relapse prevention groups are provided a minimum of once per week.

Client Council - The Client Council is a segment of the client population whose purpose is to represent all clients in treatment. The Client Council helps to build, shape, and formulate some of the program policies as they relate to daily client procedures, rules, and cultural sensitivity and responsiveness of the project. The major purpose of this collective body is to promote ownership and to enhance accountability of client participation in the program. The Client Council meets weekly. Clients elect an Executive Board and manage the meeting. Issues, recommended changes, and concerns are presented to the program administrative staff. Representatives from the Client Council are elected to represent the program on the SHIELDS Consumer Advisory Board. The Consumer Advisory Board meets

with the Chief Executive Officer and other representatives from the agency's management team on a monthly basis. They are responsible for assisting with policy development and agency-wide activities.

Aftercare Services - Aftercare is essential for accomplishing the long-term goal of reintegration with society at large. Although clients show significant improvement during treatment, their gains tend to decrease in the time period following, since support and supervision is no longer immediately available. Lifetime aftercare services are provided which include support groups, self-help groups, and participation in the alumni organization. Aftercare assists in the reduction of relapse by providing a mechanism for the client to receive follow-up from the program, in addition to assistance in accessing community services as needed.

Child development services

The Child Development Center is located on-site at the Exodus program. The target population is children 0-5 years of age, exposed to substance abuse prenatally or environmentally, who are at high risk for physical, social, emotional, and developmental delays. The primary goal of the Child Development Program is to promote the healthy development, social and emotional well-being, and school readiness of these children through the provision of therapeutic and developmentally appropriate services. Staffing includes 5 full-time Child Development staff and a Child Development Specialist. Consultants are utilized to provide specialized services. Children with special behavioral needs are referred to the SHIELDS Therapeutic Nursery for more intensive mental health services. SHIELDS provides developmental assessments and evaluation for all children enrolled in the program. Developmentally appropriate intervention plans and activities are designed and implemented for each child. Child development and parenting skills education groups are presented to mothers in order to provide clients with information that will assist them to be better prepared to care for and interact with their children. Mommy and Me parent/child interaction classes and parenting education classes are each provided one time per week.

Youth services

The Exodus Heros and Sheros Program provides afterschool and full day programming (during summer and school vacations) to a static capacity of 200 youth, ages 5-18, whose parents are enrolled in treatment. The goal of Heros and Sheros is to decrease risk factors and increase protective factors by addressing five risk domains: individual, family, school, peers, and community. Services are designed to increase self-esteem, improve family functioning, increase decision-making and problem-solving skills, improve academic performance, and to increase community awareness of negative factors affecting youth. Program services include individual and group counseling, mental health services, cultural enrichment, alcohol and substance abuse education, life skills, recreational activities, computer training, leadership development, and educational support. During the school year, Heros and Sheros staff also provides on-site services to our youth at the local schools they attend. In addition, in partnership with local

Catholic Schools, SHIELDS youth are eligible for scholarships that cover their tuition, books and fees.

In the summer of 2013, SHIELDS is expanding their Heros and Sheros program to provide a Charter High School for our youth in 9th through 12th grade. Staffing for the program at the Exodus site includes six full-time mental health case managers, eight full-time therapists, a clinical coordinator, a site supervisor and a program manager.

Educational and vocational services

Employment and vocational training services are designed to prepare individuals to be financially independent by providing a variety of services that include: remedial education, high school diploma program, employment preparation, computer training, job placement, certificate training programs in fiberoptics, child development, alcohol and drug counseling, construction, janitorial, office management, and medical billing. SHIELDS also partners with local community colleges in order to transition clients to an AA or BA degree program. Completion of a high school diploma and a reading level of 10th grade is a requirement for program completion.

Outcomes

Outcome data has been closely monitored, since the program was implemented in 1994. During the initial stages of the program (1994-1999), Exodus was part of a national evaluation through the Center for Substance Abuse Treatment, in addition to a local evaluation through SHIELDS. National evaluation results established the program as a best practice model for the federal government in 2001. Evaluation outcomes of the program over the past five years (2002-2007) conducted through the SHIELDS Research Division include:

- An 81.2% completion rate (national average = 25%).
- Family reunification rates of 85%.
- An average of 646 days in treatment (national average = less than 90 days).
- All clients obtained a high school diploma.

In the past 5 years, a total of 236 children (95%) have received at least 1 developmental screening. Overall, 85% of children received scores that fell within the normal range of development, and 15% of children were identified with potential delays and referred for additional assessment and specialized services. Evaluation outcomes of the child development component include:

- Increase in parental knowledge of child development and parenting skills with parents scoring an average of 90% on post-test scores.
- Over 200 parents received completion certificates for parenting and child development classes.
- Success in achieving low rates of Very Low Birth Weight among infants born to enrolled mothers (average= 4.5% over the last six years, 0% in the last year).
- High rates of entry into prenatal care (average=67% over the last six years, 77% in past year).

- Immunization rates among enrolled children averaged 80% in the past 5 years.
- Of a total of 264 infants who were born in the program in the past 6 years, less than 5% had positive toxicology screens.

Outcomes for Hero and Shero youth have been monitored through the use of seven standardized assessments, which are administered on a quarterly basis. Results indicate that the program has had a positive impact on participating youth:

- 60% of participants improved attitudes towards school and education;
- 75% of participants improved grades in math and English;
- 77% of participants improved self esteem and self confidence;
- 77% of participants improved cultural awareness/identity and community mobilization skills;
- 80% of participants improved awareness of substance abuse related issues and made a commitment to live drug free.

Summary

The problems and issues that a substance - abusing woman faces are related to her womanhood equally as much as they are related to her addiction. For such women the effects of addiction are far reaching. Not only are their personal lives dramatically affected in terms of physical, social, emotional, and interpersonal dysfunctions, but also, and sometimes even more devastating, are the effects on their unborn fetuses and the growth and normal development of their children. Treatment services that demonstrate effectiveness in addressing these issues utilizing a comprehensive, holistic and family-centered approach are essential. When services are provided in this manner, we are not only ensuring successful outcomes for the women we serve but for our future generations.

Project Pride: new pathways to recovery

Yael Moses (1), Joan E. Zweben (2)

(1) Clinical Supervisor, Project Pride, East Bay Community Recovery Project, Oakland (CA), USA

(2) Executive Director, East Bay Community Recovery Project
Oakland and Clinical Professor of Psychiatry, University of California, San Francisco (CA) USA

The story of Dolores

Dolores was a 33 year old Latina with three children when she entered Project Pride. Prior to that, she was a proudly defiant leader of her peer group, a group of highly cohesive troublemakers though not officially a gang. Dolores and her children barely managed to survive on her part time jobs and public assistance while slipping more and more deeply into the drug culture that surrounded them. She had sufficient charisma to be both feared and loved and she scorned any efforts to engage her in getting help. After being sent to jail in San Francisco and offered the choice of residential treatment or more jail time, she entered a residential treatment programme. She found the tight structure and intense demands for participation intolerable, and left after less than a week. She had decided to do it “her way.”

Several more years passed, during which her alcohol and cocaine use escalated, her health deteriorated, and she lost custody of her children. She was in and out of treatment programs and managed to get herself sent away from every program in San Francisco. She formed a strong bond with a drug dealing boyfriend who drew her further and further into street life. She was raped, shot at, and prostituted for drugs. She had an infant child who died under ambiguous circumstances. Her 10 year old daughter was placed in the custody of her parents, and her 2 year old son and 4 month old daughter were in a foster home after they were taken out of her arms at court by Child Protective Services.

Before coming to Project Pride, Dolores’s partner and the father of her two youngest children was shot and killed in San Francisco. The killing was deemed a homicide and the killer remained at large. She witnessed his killing and worked with the San Francisco Police Department to find her partner’s killer. She did not go to her partner’s funeral because she was hospitalized with pneumonia, the result of being on the street and not taking care of her health. Once she was released from the hospital, she appeared very subdued to her friends, but she was still determined to convey the impression that she was very much in charge. Nevertheless, she could not bring herself to go to her boyfriend’s grave site. However, in a visit with her children, she found herself weeping inconsolably and went on an extended cocaine binge soon afterward. She was arrested and once again given the choice of treatment or jail. She chose treatment and entered Project Pride.

Project Pride is a division of the East Bay Community Recovery Project (EBCRP) in Oakland, California. Oakland is an ethnically diverse, medium sized city across the bay, six miles east of San Francisco. Project Pride was launched in 1994 as part of a U.S. federal government demonstration grant, seeking to create and disseminate new models for addressing alcohol and other drug use in pregnant and postpartum women. The development of this effort began in 1974, with a series of studies on opioid dependent pregnant women, funded by the U.S. National Institute on Drug Abuse (NIDA). In the early 1990's, the cocaine epidemic required a shift in target population and NIDA funded the "Perinatal 20", a group of studies designed to determine the effective ingredients of treatment for pregnant and postpartum women using cocaine and other drugs. Funds supported the treatment for women and their children, as previous findings indicated that including children might improve outcomes. In 1989, the U.S. Center for Substance Abuse Treatment (CSAT) built on these findings and funded demonstration projects to identify and disseminate effective models. Evaluation was required and funds for this were included. EBCRP sought and received this funding.

During the CSAT grant period, the California demonstration programs were designed, reviewed and evaluated against rigorous outcome standards and compared with similar programs nationally. These standards have been maintained and the programs continue to demonstrate dramatic positive outcomes. In 2009, program completion rates averaged between 60-75%. An average of 70% of the women remained drug free at six months post treatment. Criminal justice involvement is significantly reduced by 90%. Sixty-five percent of the women are employed or in job training at the time of discharge and 75% are reunified with other children who had been placed in foster or kinship care. The children benefit significantly, as well. All programs report positive outcomes for children as indicated by: improved physical, mental and social health of children; improved school performance; improved family bonding and social functioning. Despite being high risk pregnancies, 90.3% of the children were born full term, free from substances, and without any known medical problems.

History

Dolores has known trauma since a young age. She moved to the United States from El Salvador at age two with her parents and three older siblings. In El Salvador, they had an extended family and her parents had respectable professions. They came to the US with the hope of improving their lives. However, the absence of the extended family exposed the family in general, and Dolores and her siblings, in particular to a new reality that they were ill equipped to handle. Her oldest brother started to use drugs and joined a gang. Dolores never had much of a relationship with her sisters because they were much older. One sister left home as soon as she could and distanced herself once she realized Dolores was hanging out with a destructive crowd. When Dolores entered Project Pride, they were talking to each other on an irregular basis. Her other sister was concerned enough to call the county's Children's Protective Services (CPS), which resulted in her children being taken away in an emotional and traumatic court scene. Dolores was angry and refused further contact. Her mother cared for Dolores's oldest daughter and

sometimes watched the two younger children on the weekends to give her a break, although she did describe Dolores as “very manipulative.” Dolores has not been able to talk to her father in over four years due to his anger about her drug use. He denied her existence by not allowing family members to talk about her in his presence, by not talking to her himself, and by not allowing her to come to the house while he is there. He behaved as if she did not exist. In the context of this family’s cultural background, where family was everything and without a family one was nothing, this was a particularly painful and traumatizing issue.

When Dolores entered Project Pride, her 10 year old daughter had been placed with her parents by Child Protective Services, and both her 2 year old son and her infant daughter were in foster care. They had been removed from Dolores’ care by CPS because her sister reported that she was engaged in prostitution to support her drug use. This had created an unhealthy and unsafe environment for both mother and the children and landed her in numerous legal entanglements. In addition, her family and CPS underlined the fact that Dolores had been unable to resolve the self-destructive cycle she was in, by herself.

Assessment/diagnosis

Dolores was diagnosed with Post Traumatic Stress Disorder with depressive symptoms, and a Substance Use Disorder. She did not readily acknowledge her depression, partly because she was accustomed to numbing her feelings and partly due to her investment in trying to function no matter what. She did not connect her irritability to depression. Upon coming to Project Pride, she had not recognized or worked on any of her trauma issues, and did not acknowledge her destructive use of alcohol and illegal substances.

Dolores was articulate and capable of insight, especially about the people around her. Her strengths manifested themselves in her leadership qualities and rebellious streak that could be redirected through building rapport, understanding and empathizing with her experience, and educating her about the experience of trauma. All these could be harnessed to validate her experiences and give her permission to express her emotions in a constructive rather than destructive ways.

Treatment plan(s)

In developing the Treatment Plan, it was important for us to offer Dolores a gender specific and trauma informed plan. The goal was to provide her with a sense of purpose and trust, which are the cornerstones of trauma informed services. Her initial treatment plan identified the following tasks: 1) address her ambivalent motivation about being in treatment and rebellion against its tight structure; 2) facilitate her engagement in the treatment community; 3) pre-empt her tendency to leave treatment prematurely by helping her to recognize this as part of her destructive pattern; 4) begin to educate her about her depression and PTSD and the role they played in her life trajectory to date; 5) help her understand the benefits of accepting and communicating vulnerability rather than concealing it; 6) preparing her for reunification with her children, including bringing her 2 year old into Project Pride. In helping her settle into the residential treatment environment,

we focused on her needs, using empathic connections, and other therapeutic techniques to engage her motivation.

Once she settled into treatment, later treatment plans included: 1) preparing her to work on her trauma history, reducing the effects of the trauma through validating her experience, and focusing on her strength. It is important to begin this work while she is in the safety of residential treatment; 2) addressing her issues around judgment, impulse control and problem solving, and relating these problems to her substance use. Her strong motivation to stay out of jail and reunite with her children was a powerful asset; 3) managing her depression, including the possibility of using antidepressant medications to manage symptoms and improve functioning. Staff monitor adherence to medication regimens if the client chooses to use medications after assessment by the physician; 4) improving her parenting skills.

Throughout her treatment, Project Pride staff remained attentive to her medical, psychological, social, spiritual, cultural, vocational and legal issues. Services not available on site were provided through community linkages.

Course of treatment

Dolores' behavior was erratic during the first 4-6 weeks of treatment. She precipitated several crises about whether she would remain in treatment. Staff members were not intimidated by her defiance, and worked calmly and patiently to build rapport and bring her key issues into focus. Gradually, she began to settle down, talk about her difficulty sharing painful feelings, and form some positive relationships with specific residents and staff. She slowly developed her sense of trust, which was essential for continued treatment of her PTSD. In particular, she came to understand her irritable outbursts as signals of more painful feelings beneath. Once this happened, she could learn to express herself in more appropriate ways.

Since Dolores came to the US as a two year old, her culture was American. Her own strong-willed nature made her rather obstinate and unforgiving when it came to her parents' 'old country' attitudes and language. She wanted to belong. She wanted to be a part of a meaningful group, a group functioning as a family that understood her: her 'gang like' group of trouble makers. The therapeutic task was to reorient her to more constructive social groups, starting with the Project Pride community. The sense of trust that she developed was an important tool for accomplishing this task.

Relationships with other women

Dolores' initial behavioral problems intimidated the other residents to the point that they did not want to be in the same room as her. She was very loud and aggressive. When confronted with this she denied being aggressive and said "this is just the way I am, I can't change it." The posture of strength and bravado that Dolores has adopted while with her peer group on the outside, only served to deny and camouflage her personal vulnerability. Her decision to "do it her way and go it on her own" was an example of her strength and determination, but also of the lack of trust that she felt. Project Pride, a residential community, triggered additional

issues related to living with people in intimate proximity. It frequently evoked her many issues about her family, especially her father. These situations provided both a challenge and an opportunity.

Staff worked to help her identify her problems with impulse control in general and make a commitment to change this behavior. They also worked simultaneously with the community of women as a whole to address Dolores's behavior, provide constructive ideas for behavior for the other residents and for Dolores herself. This teamwork, once achieved, is a powerful catalyst for change in residential treatment, adding greatly to the impact of professional staff.

Relationships with staff

Dolores's initial attitude of "I will do it myself" presented a challenge to the counselors and staff at Project Pride. One of the most important early staff intervention was to listen patiently to what she had to say, remaining fully present without endorsing or challenging her perspective.

This allowed her to begin to develop a sense of safety and trust. Staff had to respect her need to be self-sufficient because growing up she was not able to count on her parents to provide for her emotional needs. In addition, she experienced trauma as a result of their choices and behaviors. Early staff discussions focused on how to give her appropriate forms of autonomy while firmly setting limits, and how to maintain calm in the face of her outbursts. They did that by identifying and developing her strengths. Program rules and enforcement, which can be reminders of feeling trapped in a bad situation, were expressed in terms of the residents' needs for health and safety. Dolores was also asked for input, which was seriously considered and many times accepted, even if sometimes in 'edited' format. These 'co-equal' interactions were less traumatizing and did not mirror past abusive relationship. As she gradually began to share her vulnerability and work on painful issues, most staff and residents found her more engaging and she began to build rewarding relationships.

Later in treatment, as she became one of the community "elders", she was able to reclaim leadership status based on being a positive influence on others. Her insight and articulateness served her well as she consolidated a new type of self-image. This gave her a sense of purpose, which is another important element in overcoming trauma and addiction.

Individual counseling

Individual counseling served multiple functions. It provided an arena to ventilate her frustrations and when possible, reframe her issues in a more constructive manner so she could work on them more productively in groups. In the initial phases of treatment, the daily availability of her counselor in a supportive listening environment, allowed her to defuse some of her anger prior to acting on it, thus strengthening her impulse control and reducing the possibility of premature departure or involuntary discharge. Her counselor was always mindful of the need to encourage her to work productively in groups, and helped her recognize

progress in this direction. As she became increasingly engaged, her counselor began to prepare her to address her trauma issues and her depression.

Groups

Project Pride offers a variety of groups and Dolores became increasingly able to make good use of them. She attended Seeking Safety, an early stage stabilization group for people with PTSD and substance abuse (www.seekingsafety.org). It is a research-based, manualized treatment consisting of 25 sessions that can be done in an individual or group format (Najavits, 2002). It is designed to teach coping skills and create a framework for addressing trauma issues.

She also attended Anger Management Group (Reilly & Shropshire, 2002), a cognitive behavioral skills training group designed to increase her ability to recognize and appropriately express angry feelings and frustration as they occur. Over time, clients frequently report a decrease in the frequency and intensity of angry feelings, an opinion usually confirmed by staff. The Dialectical Behavior Therapy group (Linehan, 1987) is complementary with the other groups. Its goal is to help clients identify intense feelings as they occur and increase the ability to self-regulate emotionally, offering an opportunity to practice in the group as well as review earlier attempts that were less successful than hoped.

Parenting skills

Her two year old daughter, Adelita, joined her in Project Pride after she had been there a month. A residential treatment program that includes children offers unparalleled opportunities for improving parenting skills. Most clients have poor role models and display inappropriate behaviors in the course of daily life. The parenting group takes a psycho-educational stance, teaching specific skills, particularly coming to understand child development and learning congruent and appropriate communication, the importance of modeling, and giving the opportunity for mothers to express their frustrations. Dolores was initially punitive towards her child, but was also overindulgent due to her guilt about past abuse and neglect. Knowing that every participant has reasons to be ashamed of previous behaviors promotes an honesty that is harder to achieve in classes in the community. The residential treatment setting allowed Dolores to practice what she had been learning and receive feedback from other clients and staff during normal daily activities.

Working on psychological issues

Although most people who are exposed to serious trauma experience symptoms of post-traumatic stress, not everyone exposed to a serious trauma develop the full PTSD syndrome. More often than not, individuals develop PTSD due to various personal vulnerabilities and a history of multiple traumatic experiences. For Dolores the cultural shock and economic hardships her family experienced as a result of the move from El Salvador laid the foundation for Dolores' own feelings of being an outsider. In addition, her father was both demanding

and inflexible in his expectations. In searching to find a place for herself where she will be welcomed and feel like she belonged, she associated with a crowd where the drug culture reigned. The numerous experiences and the actions that led to her being incarcerated were traumatic, including possible head trauma from street fights. These culminated in witnessing the murder of her boyfriend who was the father of her two youngest children. The posture of strength and bravado that Dolores adopted while with her peer group, only served to deny and camouflage her personal vulnerability. Her decision to “do it her way and go it on her own” was both an example of her strength and determination but also exposed her to additional traumatic experiences while she was prostituting.

Addressing Dolores’s trauma issues presented a challenge. Coming from a culture that thrived on community, she felt a deep need to have one. She felt disowned by her father, which made the Project Pride community both more needed and therefore more powerful. In this paradox of rejection versus need she was searching to find a place for herself where she will be welcomed and feel like she belonged.

To acknowledge that she had clinically significant anxiety meant to her that she needed to acknowledge that she was vulnerable. The residential treatment environment triggered memories of ‘gang like’ life experiences. The more anxious she got, the more posturing and louder she became, especially in her efforts to become ‘the leader.’ A critical incident occurred around holiday planning, in which other residents shared that they appreciated her ideas and willingness to work to make the event a success, but resented her domineering manner. Feeling attacked by everyone, she suddenly burst into tears. The group rallied to her support, giving feedback on her positive qualities and achievements during her stay. This marked the beginning of reshaping her leadership tendencies to a more congenial style.

Family participation and challenges

Dolores eventually acknowledged that she was coping with her problems and feelings by using alcohol and other drugs, that it was unsuccessful, and that as a result she had lost custody of her children and her relationship with her sister and father. Although she was angry with her sister for reporting her to CPS and angry at her mother for bringing her into Project Pride, she came to realize that they probably saved her life and also helped her to regain custody of her children. This could make it possible for her to mend her relationship with her father and, as a result, her relationship with her family as a whole.

Project Pride offers the **Celebrating Families Program**, which works with family members to strengthen recovery from addiction, address other family problems, and promote healthy reunification. This is a family centered program. Families learn to communicate about difficult issues that make healing possible. It strengthens recovery; increases successful family reunification; and improves family life. Each session includes a family dinner, followed by structured activities for the adults and the children, all in separate age groups. When Dolores was told about Celebrating Families and it was explained to her, she was very reluctant to participate. She stated that she had no supports that she wanted to invite. Upon discussing this further, she came to the realization that although her sister and her

mother did things at the time that she did not like nor understand, they could end up being her biggest supports. She was willing to put aside her feelings of shame and anger long enough to find out. Seeing the other residents in the community looking forward to this family evening made her curious and increased her desire to participate.

She participated regularly in our Celebrating Families evenings for over seven months before leaving Project Pride. After attending the first event by herself, she saw how Celebrating Families could help her family as well as herself and perhaps give them all a chance to understand what it was like for her while she was in her addiction. She decided to invite her mother and her sister to the next Celebrating Families event and they attended for the duration of her stay. She and her family especially liked the session on "*Chemical Dependency Affects the Whole Family.*" Her family could resonate with a lot of the lesson plan that evening and finally felt that they were in a safe enough environments to let Dolores know how her addiction had affected them over the years. She and her family processed a lot of feelings that evening and were able to hug each other upon leaving.

Staff noticed that Dolores had less angry outbursts after that Celebrating Families session. She stated that she felt much more confident knowing that she would have her family as support once she left Project Pride. She and her family expressed interest in coming back to Celebrating Families once she left, which is always welcome.

Towards treatment completion

Once Dolores passed the watershed event of experiencing the community rallying to her support - which marked the beginning of her reshaping of her leadership tendencies to a more congenial style - her counselor started to help her focus on the next two important goals in her recovery: employment and housing.

Tasks for Employment: Dolores's counselor provided her with access to a computer to start gathering information to be put on her resume. She needed to get school certificates, past jobs dates and confirmations, and letters of recommendations from past employers. She was guided to identify an appropriate format for her resume and coached when entering all her education and employment information onto it. Her counselor provided her with an opportunity to do mock videotaped interviews, so that she could practice for the real ones. She was then coached in applying for both full time and part time jobs.

Tasks for Housing: Concurrent with the above, Dolores actively explored housing options. She did not want to move in with her parents, although her mother and one of her sisters continued to be very supportive. Indeed, her mother volunteered to provide childcare, when and if Dolores got a job. She again used the computer for both public listings and for low income housing, available for single mothers in her situation. Her counselor continually assessed her progress and supplied additional resources as needed, since it was important not to overwhelm her with too many options at the same time.

Dolores left Project Pride with a completed employment resume and halfway to completion of her General Education Degree. She found housing at a Transitional Housing Program for single mothers close enough to her parents, where she could

stay for a year while she found a job and would be able to afford to pay a rent. She and her family were also referred to a local Family Resource Center where she and her family will be receiving individual therapy, additional vocational and job search assistance, educational assistance to complete her GED, parenting support, financial support, and family support.

Conclusion

Dolores' path shows us that despite multiple problems and a stormy treatment entry, it is possible to bring about change in a long term residential setting. It is essential for the program to have the capacity to address co-occurring mental health and substance use disorders in an integrated way, as most clients who enter residential treatment have multiple burdens. Staff must walk a fine line between engaging the clients through positive interactions, and communicating clear expectations and limits. It is not necessary for all staff to have advanced degrees, but it is essential for them to be carefully trained, especially in understanding trauma-informed principles in order to provide trauma-informed treatment. The opportunity to enter treatment with a child and include other family members in treatment is crucial to improving parenting skills and creating a system to sustain long term change.

References

Linehan, M. M. (1987). Dialectical behavior therapy for borderline personality disorder. Theory and method. Bull.

Menninger Clin, 51(3), 261-276.

Najavits, Lisa M. (2002). Seeking Safety: A Treatment Manual for PTSD and Substance Abuse. New York: Guilford Press.

Reilly, Patrick M., & Shropshire, Michael S. (2002). Anger Management for Substance Abuse and Mental Health Clients: A Cognitive Behavioral Therapy Manual. Rockville, Maryland: U.S. Department of Health and Human Services.

Rosemary Tisch & Linda Sibley (2007). Celebrating Families!: A Curriculum To facilitate Recovery For Parents and Children Impacted by Alcohol or Drug Dependence. National Association for Children of Alcoholics.

Annex I

A collection of good practices in the prevention, treatment and recovery of female addiction

Alice P. Brizi (1), Vittoria Luda di Cortemiglia (2)

(1) Junior Fellow, United Nations Interregional Crime and Justice Research Institute

(2) Programme Officer, United Nations Interregional Crime and Justice Research Institute

This section contains a collection of good practices implemented in the field of prevention, treatment and recovery of female addiction.

The practices listed in this section were collected and selected through analysis of open-source information and, in particular, on websites of United Nations entities and agencies and websites of governmental and non-governmental institutions. Additional information on good practices was collected through the analysis of dedicated publications, which are listed at the end of this section.

The good practices collected have been divided into three main sub-sections: Prevention, Treatment and Recovery. The initiatives collected were placed in specific thematic areas, identified for each sub-section.

The main objective of this survey was to identify those initiatives which have been successfully implemented and which could be replicated in other geographical contexts.

Prevention

Adoption of a gender-specific approach in preventive interventions in terms of content, setting and practice

The Declaration on the Guiding Principles of Drug Demand Reduction indicates that demand reduction programmes should be designed to address the needs of the population in general, as well as specific population groups, such as females.

Prevention programs should be tailored to address risks specific to target audience, such as age, gender, and ethnicity, to improve programme effectiveness (United Nations General Assembly, Declaration on the Guiding Principles of Drug Demand Reduction Resolution S-20/3, 1998).

Several studies provide evidence of the need to adopt a gender-specific approach in preventive intervention in terms of content, setting and practice.

Risk and protective factors differ enormously between sexes. Female and male perception of drug use is different also in relation to age groups. Many studies show that females change their attitudes toward drug use when they move from primary to secondary school or when they go to college or start to work, with a more favourable attitude to drug use than males. Specific preventive actions should be therefore implemented at key transition points.

Good practices in the field of prevention of substance use and abuse are listed below.

A) Peer Education Groups:

Peer education groups for female students in schools have proven efficient in many cases.

Case Studies:

Peer or community-based projects across Europe

The peer-to-peer approach often takes the form of harm-reduction intervention in recreational context. The emphasis is placed on the importance of the educator's age in establishing credibility with the audience. There is a good number of peer or community-based projects implemented, for instance, across Europe.

The Project CREW, (Edinburgh, Scotland):

Crew developed around 1992 in response to the rapid expansion of recreational drug use and it was envisaged as a peer education and peer led organization. The learning by volunteers who engaged with people who were using Ecstasy (MDMA) and other substances was used in combination with the most up to date research findings that volunteers could get hold of in order to produce informative and culturally credible information for people using these illicit substances. Volunteers from the dance and other drug using scenes were recruited and trained as peer educators. The project Crew is now a peer education project, which includes a range of services from drugs counseling, outreach, drop in and training in substance use and sexual health. These services are operated by staff and volunteers through peer education and support.

More information at: www.crew2000.co.uk

The Project Drogart (Ljubljana, Slovenia):

The Project Drogart was established in 1996 as a project group, and then it was registered in 1999 as a non-governmental, non-profit association. The major aims of Drogart was to research on and alleviate the main problems associated with regular, temporary or experimental drug use and abuse. Its InfoPoint and cyber cafe (Internet access) and advisory team of people are located next to Ljubljana Railway Station. The target population is 15 to 25 year olds, mainly involved in electronic music sub-culture. Drogart uses different tools and it works through popular media, pedagogic work with the young and

preventive workshops for pupils and students, offering Internet access to useful information, publishing brochures and flyers and organizing youth culture projects (e.g. 'Dance with your Head On'), educational activities for trainers and teachers and lectures and film screenings. The members of Drogart participate often in rave parties and they undertake research into drug abuse in Slovenia. The Drogart Info Point is a part of the Ljubljana Network of Info Points (L'MIT). Its work is co-funded by the Ministry of Work, Family and Social Affairs, the Ministry of Health, Ljubljana Urban Municipality and the Youth Office of the Republic of Slovenia.

More information at: www.drogart.org; <http://www.culture.si/en/Depot:DrugArt>

Other projects:

Keep Smiling (Lyon, France) www.keep-smiling.com

Eclipse (Berlin, Germany) www.eclipse-online.de

B) Prevention within the families

Family-based prevention programs should enhance family bonding and relationships and include parenting skills; practice in developing, discussing, and enforcing family policies on substance abuse; and training in drug education and information.

Case Study:

Family, a Context for Prevention: Parental Education in Portugal

The project was developed in some quarters of the Concelho de Vila Franca de Xira (Frank of Xira Village). It was the result of a joint needs assessment between different entities of the district that have a role in the area of education and social support. The existing gaps had been identified by different structures of the district concerning interventions with risk families. The project was able to benefit and work in synergy with interventions already running in the district developed by some of these local structures.

The project's base was the identification and analysis of the different situations, joint definition of strategies and methodologies of intervention, follow-up and evaluation of the activities. The project contemplated the application of a Program of Families Skills in two different types of population:

i) Families in risk - through the implementation of individual Plans with the families. The Plans identified different areas of the life of the families. The implementation took place in the homes and in the Gabinetes de Atendimento dos Centros Comunitários (Reception Office of the Communitarian Centers). In the beginning of the intervention some difficulties were encountered in commitment to attend and the completion of tasks. Nevertheless, stable relations with the professional staff were created and the involvement of the

families in the intervention process revealed itself through small changes in the behaviors and attitudes in the different working areas.

ii) Families in general - school of parents that ran in some schools of 1.st cycle of basic education. The program covered areas of child development (development of the child from 6 to 10 years), health education, parental education (family and parental practice) and citizenship (relation school-family-community).

Some methodologies had been used: debates/discussions concerning problems of the school and familiar daily life of the children, involvement of the parents in joint activities with the children, group dynamic to promote the establishment of a favorable communication channel.

Source: EMCCDA

http://www.emccda.europa.eu/html.cfm/index52035EN.html?project_id=5198

Case Study:

Strengthening Families Program for Parents and Youth (10-14) in the US

The project Strengthening Families Program for Parents and Youth (10-14) is an example of a universal family-based program, providing rural parents guidance of family management skills, communication, academic support, and parent-child relationship.

Recognising it can be difficult to attract parents to this program, the researchers encourage participation through flexibility in scheduling and location. Offering conveniences such as babysitting, transportation, and meals make participation more practical for many rural parents, while enhancing the program's success in reaching its goals.

Source: NIDA, Preventing Drug Use among Children and Adolescents, 2003.

C) Interactive techniques with peers and parents

Prevention programmes are most effective when they employ interactive techniques, such as peer discussion groups and parent role-playing, that allow for active involvement in learning about drug abuse and reinforcing skills. Meetings in schools with adolescents (alternative, artistic activities, competitions in schools on how to transmit the message through multi-media activities) have proven effective.

Case Study:

Interactive teaching strategies and the life skills approach at schools

A life skills approach is a way of teaching and interacting with young people that has the potential to lead better health and drug abuse prevention learning outcomes and may ultimately influence student drug use. Life skills are best taught through

interactive methods and are most effective when applied and practiced in potential drug use situations that are relevant and meaningful to the social situations of students.

Education for drug abuse prevention is more successful when it is student-focused and uses interactive methods, with experiential learning and small group work as its basis.

Source: UNODC, Schools. School-based education for drug abuse prevention, 2004.

D) Prevention in schools

The main objective of drug use/abuse prevention programmes in school is to prevent the use of substances, included licit substances such as alcohol and tobacco (RAND, What Are the True Benefits of School-Based Drug Prevention Programs?, RB-6009-RWJ, 2002).

Case Study:

Unplugged: European Union Drug Abuse Prevention (EU-DAP) in Croatia

The Unplugged program is a school-based prevention program which targets young people aged 12-14 years and their parents. It is based on a life skills education and social influences approach. The program goals are: Increased health related awareness and knowledge of social influences; delayed onset of drug use; improved knowledge, attitudes and skills concerning health behaviors and drug use; reduction in the use of tobacco, alcohol and cannabis and a reduction in the likelihood of future drug abuse.

The program includes students and parents arm. Pupils arm consists of 12 one-hour units delivered weekly by teachers at the participating schools. The curriculum consists of three parts: the first aims to improve knowledge of risks and protective factors, as well as to build attitudes against substance use; the second focuses on interpersonal skills, beliefs, norms and realistic information about prevalence; the third aims to develop intrapersonal skills, such as coping competences, problem solving/decision making and goal setting. Parent arm includes three two-hour meeting on the following topics: (1) Understanding better the teenagers, (2) Parenting a teenager means growing up together, (3) A good relationship with my child also means setting up rules and limits. The program includes 3 day education/training of teachers and social pedagogues who deliver the program in schools, as well as supervision.

Source: EMCDDA

http://www.emcdda.europa.eu/html.cfm/index52035EN.html?project_id=HR-04&tab=overview

Prevention programs should include **teacher training** on early prevention and on management of novelty seekers.

Case Study:
Practical tool for Teacher's training

Teacher training is as important a component of any drug abuse prevention programme as are content, resources and teaching method. Education for drug abuse prevention is more effective when teachers receive formal training and ongoing advice and support.

Training for teachers in drug abuse prevention education, rather than focusing on training teachers in the use of specific set of resource materials, should focus on providing them with an orientation to drug abuse prevention education that enables them to select content and use a wide range of strategies, appropriate to meeting students' needs.

To achieve this goal, for example in Australia, a practical tool Skills for Drug Education in Schools: A Manual for Teachers and Trainers has been developed. This is a manual for training teachers, or other health educators, as facilitators of interpersonal skills activities to support drug education in schools. It is a comprehensive training manual on skills for education for drug abuse prevention in schools and includes sections on group facilitation, communication, decision-making, self-esteem building, assertion and other personal skills. It is student focused, using experiential learning and small work group as its basis.

Source: UNODC, Schools. School-based education for drug abuse prevention, 2004.

The Manual is available at: <http://education.qld.gov.au/health-safety/promotion/drug-education/docs/pd-part-a.pdf>

E) Prevention within communities

Creation/support of structures/activities on the territory (e.g. youth camps for team building etc.).

Case Study:
Youth Power Centers in Uzbekistan, Tajikistan, Kyrgyzstan, and Kazakhstan

The Youth Power Center Program was established along drug trafficking routes in geographic areas of Central Asia that were characterized as “drug using neighborhood”; parts of the cities and regions with a concentration of drug trafficking, supply, and use. There are currently seven Youth Power Centers operating in the three target countries of the USAID Drug Demand Reduction Program, namely Uzbekistan, Tajikistan, Kyrgyzstan, and Kazakhstan.

Each Youth Power Center serves as a drug-free, safe place where at-risk youth can socialize. Youth Power Centers employ peer educators recruited directly from the target group and trained to provide behaviour change communications with at-risk youth to prevent initiation of drug use as well as reduce both drug-related and sexual HIV risk behaviours.

Youth Power Centers provides a menu of activities based on the target groups'

interest. These include: sports, games, vocation training, language lessons, and social groups. Peer counseling is provided by peer educators, with personal experience of issues related to drug use. Each Youth Centre also has on staff one or more professional counselor to provide psychological counseling to at-risk youth with emotional, psychological, or other problems.

Source: Alliance for Open Society International, Youth Power Centers, USAID-funded drug Demand Reduction Program in Uzbekistan, Tajikistan, and the Fergana Valley Region of Kyrgyzstan, Best Practice Collection, 2007.

F) Early detection training for primary care physicians and paediatricians should be delivered

Case Study:

Training primary-care workers: United States primary-care initiative

Focusing on primary-care providers is important because women are most likely to use these services. In the United States, the National Institute on Drug Abuse has launched a primary-care initiative to address training issues. It includes a physician outreach initiative to involve primary health-care providers in the early recognition and assessment of, and intervention with, substance-abusing adolescents and their families.

This programme includes early care and education for children from birth through age 8; early intervention and special education; health, mental health and nutrition; and services to strengthen and engage families in their children's development and learning.

Source: UNODC, Substance abuse treatment and care for women: Case studies and lesson learnt, 2004.

G) The use of social networks

Case Study

Use of social networks for information dissemination by nonprofits

Social networks can be a powerful and efficient vehicle of information for preventive anti drugs interventions. Facebook Pages include functions that allow organizations to promote their work by posting mission statements, news, contact information, details on upcoming events, and other items related to their work. Quick and widespread dissemination of information to the Facebook community is useful when spreading the word about events and activities and for increasing attendance at conferences, workshops and volunteer opportunity.

According to one non-profit social media expert, "Facebook is about raising friends and awareness". Facebook offers nonprofits both conventional and creative

methods, such as social “listening”. Comments or questions are often posted on nonprofit-affiliated Facebook spaces, such as message boards or blogs.

Source: Calafat A. and Members of the Pompidou Group Prevention Platform, Lifestyle and drugs, Prevention interventions in recreational settings, P-PG/Prev (2010) 7, 201.

H) Setting

For effective prevention, the setting should be different for women and men. According to EMCDDA studies, women prefer settings that allow informal exchange and extroverted forms of expression such as small workgroups. Reflections on personal experience and role images as well as the gender of the trainer and of the contact person are also considered important (EMCDDA, Annual report: the state of the drugs problem in Europe, 2006).

Case Study

Gender-specific approach in preventive interventions in the EU

For effective prevention, the setting should be different for women and men. According to reports, women prefer settings that allow informal exchange and extroverted forms of expression such as small workgroups.

Gender-specific prevention projects in Germany, Austria and Nordic countries mostly consist of separate workshops or seminars for girls and boys in order to encourage positive body image, identity development, self-reliance and action competence and to avoid the reiteration of gender stereotypes.

In Belgium and Denmark gender-specific projects are mostly found within the vocational education system, where social problems such as drugs use are more frequent. Several school programmes in Germany (Sign) and Austria (Selbst sind die Kids, Eigenständig werden, I luag uf mi) take gender-specific aspects into account. The German-Austrian project “Step-by-Step” also takes into account gender-specific differences, e.g. training of teachers to recognise the early signs of drug use in boys and girls.

Ethnicity and gender are targeted together in interventions in Belgium, Luxembourg and the Netherlands. In Belgium, the Tuppercare project targets women from the Turkish and Moroccan communities. Key women in the community host meetings of family members and friends at which prevention workers of the same ethnic origin can provide information about sensitive issues such as drug use. A joint Dutch-Luxembourgish peer-to-peer education project (‘Chebbab’ in Nijmegen) involving young Moroccan men in a socially vulnerable position has proved to be successful.

Anti-tobacco campaigns in Germany and in France use gender-specific target messages, e.g. the contradiction between seduction and the effects on beauty or between addiction and the quest for freedom.

Source: EMCDDA, Annual report: the state of the drugs problem in Europe, 2006
Available at: <http://www.emcdda.europa.eu/publications/annual-report/2006>

References

Amaro H., Blake S.M., Schwartz P.M., Flinchbaugh L.J., Developing theory-based substance abuse prevention programs for young adolescent girls, *Journal of Early Adolescence*, 21(3), pp. 256-293, 2001.

Butters J.E., The impact of peers and social disapproval on high-risk cannabis use: gender differences and implications for drug education, *Drugs: education, prevention and policy* 11, pp. 381-90, 2004.

Calafat A. and Members of the Pompidou Group Prevention Platform, Lifestyle and drugs, *Prevention interventions in recreational settings*, P-PG/Prev (2010) 7, 2010 Available at: <http://www.coe.int/t/dg3/pompidou/Source/Files/minconf/P-PG-PREV-2010-7-en.pdf>

Canadian Centre on Substance Abuse (CCSA), Building on our strengths: Canadian standards for school-based youth substance abuse prevention, 2010. Available at: <http://www.ccsa.ca/2010%20CCSA%20Documents/ccsa-011815-2010.pdf>

Chou C., Montgomery S., Pentz M., Rohrbach L., Johnson C., Flay B., Mackinnon D., Effects of a community-based prevention program in decreasing drug use in high-risk adolescents, *American Journal of Public Health* 88:944-948, 1998.

Colegio Oficial de Psicólogos, Guía para la detección e intervención temprana con menores en riesgo, 2004. Available at: <http://www.pnsd.msc.es/Categoria2/publica/pdf/MenoresRiesgo.pdf>

Confederación Católica Nacional de Padres de Familia y Padres de Alumnos – CONCAPA, Redes familiares para la prevención: manual-guía de formadores, 2006. Available at: <http://www.pnsd.msc.es/Categoria2/publica/pdf/RedesfamiliaresPrevencion.pdf>

Confederación Española de Asociaciones de Padres y Madres de Alumnos – CEAPA, Adolescencia y familia. Cómo mejorar la relación con los hijos e hijas adolescentes y prevenir el consumo de drogas - Cuaderno del alumno/a, 2009. Available at: <http://www.pnsd.msc.es/Categoria2/publica/pdf/AdolescenciayFamilia1.pdf>

Confederación Española de Asociaciones de Padres y Madres de Alumnos –CEAPA, Adolescencia y familia. Cómo mejorar la relación con los hijos e hijas adolescentes y prevenir el consumo de drogas - Cuaderno del monitor/a, 2009. Available at: <http://www.pnsd.msc.es/Categoria2/publica/pdf/AdolescenciayFamilia2.pdf>

Consejo General de Colegios Oficiales de Psicólogos, Guía para la prevención del Consumo de Cannabis en Población Vulnerable e inmigrantes. Visión diferencial para ambos sexos, 2008.

Available at: <http://www.cop.es/pdf/Guia-Prevencion-Consumo-Cannabis.pdf>

Cruz Roja Española, Juventud, Alcohol y Cocaína: Guía para la intervención, 2010

Available at: <http://www.cruzroja.es/guiajuventud/index.html>

Danielsson A.K., Adolescent Alcohol Use: Implications for Prevention, Karolinska Institutet, Stockholm, 2011.

Available at: http://publications.ki.se/jspui/bitstream/10616/40386/2/Thesis_frame.pdf

Dipartimento Politiche Antidroga, Measures and Concrete Actions for the Prevention of Drug-Related Diseases, edited by Serpelloni G., Simeoni E., Rome, June 2009, available at: <http://www.politicheantidroga.it/media/313164/ppc-eng.pdf>

Dipartimento Politiche Antidroga, Cocaina e minori. Linee di indirizzo per le attività di prevenzione e l'identificazione precoce dell'uso di sostanze (Cocaine and minors. Guidelines for prevention and early identification of use of substances), edited by Serpelloni G. Bonci A., Raimondo G., Rome, 2009.

Available at:

http://www.politicheantidroga.it/media/180683/cocaina%20e%20minori_060709_light.pdf

Donovan J.E., Gender differences in alcohol involvement in children and adolescents: A review of the literature, in J.M. Howard, S.E. Martin, P.D. Mail, M.E. Hilton, & E.D. Taylor (eds.), 2002.

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), Preventing later substance use disorders in at-risk children and adolescents, Lisbon, 2009

Available at: <http://www.emcdda.europa.eu/publications/thematic-papers/indicated-prevention>

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), Drugs and vulnerable groups of young people, Lisbon, 2008.

Available at: <http://www.emcdda.europa.eu/publications/selected-issues/vulnerable-young>

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), Gender-specific approaches in responses to drug use, in "Annual Report 2006", Lisbon, 2006.

Available at: <http://issues06.emcdda.europa.eu/en/page018-en.html>

Hawkins J.D., Catalano R.F., Kosterman R., Abbott R., Hill K.G., Preventing adolescent health-risk behaviors by strengthening protection during childhood, in "Archives of Pediatric and Adolescent Medicine", 153:226-234, 1999.

International Centre for Alcohol Policies, Women and Alcohol, Blue Book, 2005.

Available at:

<http://www.icap.org/PolicyTools/ICAPBlueBook/BlueBookModules/9WomenandAlcohol/tabid/170/Default.aspx>

National Center on Addiction and Substance Abuse (CASA) at Columbia University, Fact Sheet: Girls And Alcohol. Adapted From Women Under The Influence, The Johns Hopkins University Press, 2006.

Available at: http://www.casacolumbia.org/articlefiles/412-GIRLS%20AND%20ALCOHOL_CASA%20Fact%20Sheet.pdf

National Institute on Drug Abuse (NIDA), Gender differences in drug abuse risks and treatment, in NIDA notes 15 (4), 2000.

Available at: http://www.nida.nih.gov/NIDA_Notes/NNVol15N4/tearoff.html

National Institute on Drug Abuse (NIDA), Preventing Drug Use among Children and Adolescents: A Research-based Guide for Parents, Educators and Community Leaders, 2nd edition, US Department of Health and Human Services, 2003.

Available at: <http://drugabuse.gov/pdf/prevention/redbook.pdf>

Nolen-Hoeksema S., Gender differences in risk factors and consequences for alcohol use and problems, *Clinical Psychology Review* 24, pp. 981–1010, 2004.

Available at: http://www.yale.edu/snhlab/Health%20Consequences_files/Nolen-Hoeksema,%202004.pdf

Poole N., Urquhart C., Gonneau G., Girl-Centred Approaches to Prevention, Harm Reduction and Treatment, *Gendering the National Framework Series (Vol. 2)*, Vancouver, BC., 2010.

Available at: <http://www.coalescing-vc.org/virtualLearning/section6/documents/GirlsDG2.2forweb.pdf>

RAND, What Are the True Benefits of School-Based Drug Prevention Programs?, RB-6009-RWJ, 2002.

Available at: http://www.rand.org/pubs/research_briefs/RB6009/index1.html

United Nations General Assembly, Declaration on the Guiding Principles of Drug Demand Reduction Resolution S-20/3, 1998.

Available at: <http://www.un.org/documents/ga/res/20sp/a20spr03.htm>

United Nations Office on Drugs and Crime (UNODC), Compilation of Evidence-Based Family Skills Training Programmes, 2010.

Available at: http://www.unodc.org/docs/youthnet/Compilation/10-50018_Ebook.pdf

United Nations Office on Drugs and Crime (UNODC), From Coercion to Cohesion: Treating Drug Dependence, through Health Care not Punishment, 2009.

Available at: www.unodc.org/docs/treatment/Coercion_Ebook.pdf

United Nations Office on Drugs and Crime (UNODC), Peer to Peer, Using peer to peer strategies in drug abuse prevention, 2003.

Available at: https://www.unodc.org/pdf/youthnet/handbook_peer_english.pdf

United Nations Office on Drugs and Crime (UNODC), Substance abuse treatment and care for women: Case studies and lessons learned, 2004.

Available at: http://www.unodc.org/pdf/report_2004-08-30_1.pdf

United Nations Office on Drugs and Crime (UNODC), Schools: School-based education for drug abuse prevention, 2004.

Available at: http://www.unodc.org/pdf/youthnet/handbook_school_english.pdf

United Nations Office on Drugs and Crime (UNODC), Primary Prevention of Substance Abuse: A workbook for Project Operators, 2000.

Available at: http://www.unodc.org/pdf/globalinitiative/initiative_activities_workbook.pdf

Webster-Stratton C., Reid J., Hammond M., Preventing conduct problems, promoting social competence: A parent and teacher training partnership, in Head Start. *Journal of Clinical Child Psychology* 30:282–302, 2001.

World Health Organization (WHO), Alcohol, gender and drinking problems: perspectives from low and middle income Countries, 2005, Edited by Obot I.S. and Room R., Geneva.

Available at:

http://www.who.int/substance_abuse/publications/alcohol_gender_drinking_problems.pdf

World Health Organization (WHO), Global strategy to reduce harmful use of alcohol, 2010

Available at: http://www.who.int/substance_abuse/msbalcstrategy.pdf

Alliance for Open Society International, Youth Power Centers, USAID-funded drug Demand Reduction Program in Uzbekistan, Tajikistan, and the Fergana Valley Region of Kyrgyzstan, Best Practice Collection, 2007.

Available at: http://www.aidsprojects.com/wp-content/themes/apmg-1.0.1/documents/YouthPOWER%20Centers_Eng.pdf

Treatment

1. Elimination of barriers to treatment access. Promoting gender responsive services

As stated by UNODC/WHO Principles of Drug Dependence Treatment, drug dependence and its associated social and health problems can be treated more effectively if people have access to continuum of available and affordable treatment and rehabilitation services in a timely manner. To this end, all barriers limiting accessibility to treatment services need to be minimized for people to have access to the treatment that best fits their needs. Also, services tailored to gender-specific treatment needs can improve accessibility by responding to differential stigmatization, child care needs, and issues in pregnancy (UNODC/WHO, Principles of Drug Dependence Treatment, 2008, p.4-5).

Available research indicates that women generally have more severe problems at treatment entry and potentially greater obstacles to accessing treatment than men. Despite differences between cultures and countries, women in different regions of the world experience many of the same barriers to accessing and remaining in treatment. These barriers have to do most often with their responsibilities as wives or partners and mothers, the difficulties associated with having a substance-using sexual partner, and the significant additional stigma attached to women's substance use problems (UNODC, Substance abuse treatment and care for women: Case studies and lessons learned, 2004, p. 17).

Women face many obstacles and challenges in engaging in treatment services: lack of collaboration among social service systems, limited options for women who are pregnant, lack of culturally congruent programming, few resources for women with children, fear of loss of child custody, and the stigma of substance abuse. Treatment services for women must extend beyond standard care to address specific needs for women, pregnant women, and women with children such as medical services, health promotion, life skills, family and child-related treatment services, comprehensive and coordinated case management, and mental health services (US Department of Health and Human Services, Substance Abuse Treatment: Addressing the Specific Needs of Women, A Treatment Improvement Protocol, 2009).

Female drug users living with HIV/AIDS have also been shown to have great difficulty in accessing substance abuse treatment services, and to be in greater need of secondary prevention interventions (WHO, Treatment of injecting drug users with HIV/AIDS: promoting access and optimizing service delivery, 2006).

Providing comprehensive health-care services taking into account the needs of women throughout their lives, as well as their multiple roles and responsibilities, is highlighted as a key gender-responsive approach to women's health in the Beijing Platform for Action. (WHO, Integrating Gender into HIV/AIDS programmes in the health sector, 2009, p. 19).

Case studies on positive initiatives implemented in the field of treatment of substance use and abuse, with particular reference to the elimination of barriers, are listed below.

Minimum standards:

- Create an environment based on safety, respect, and dignity. A safe, consistent, and supportive environment is the cornerstone of a treatment and rehabilitation of women making use of drugs and other substances. The treatment setting has a profound effect on a woman's recovery. A profile of women in the criminal justice system indicates that many have grown up in less than optimal family and community environments. In their interactions with women offenders, criminal justice professionals must be aware of the significant pattern of emotional, physical, and sexual abuse that many of these women have experienced (Covington S., Bloom B. E., Gender-Responsive Treatment and Services in Correctional Settings, Women and Therapy, Elaine Leeder, Editor, Vol. 29, No. 3/4, 2006, p.4).
- Cultural relevance and user friendliness. Current knowledge indicates that a treatment climate that is culturally sensitive, preferably multi-professional, team orientated, and that encourages patient participation and involvement in treatment facilitates patient access and retention in treatment, and ultimately improved treatment outcomes. Cultural mediators and interpreters should be available whenever necessary in order to minimize cultural and language barriers for minorities (UNODC/WHO, Principles of Drug Dependence Treatment, 2008, p. 4 and 13).
- Timeliness and flexibility of opening hours. A wide range of opening hours will facilitate access to services for individuals with employment or family responsibilities (UNODC/WHO, Principles of Drug Dependence Treatment, 2008, p.4).

A) Information/training to sensitize primary care physicians and gynaecologists to drug/pregnancy problems

The role of primary health care professionals in treating people with substance use disorders

WHO in its recent study identifies that integrating the treatment of substance use disorders and other mental disorders into the general health system will minimize the treatment gap.

In a new conceptualization of the treatment system, primary care workers (including medical practitioners, nurses, social workers and other health personnel) would have a major role in detecting persons with substance use disorders in the early disease stages, while psychiatrists, addictologists or narcologists, would be involved in the treatment of more severe cases. Combining enrolment in self-help groups and ensuring continued participation in such groups beyond treatment would be encouraged to expedite recovery and to prevent relapse.

Networking between primary and specialized care is encouraged in order to reduce the costs of treatment by early detection of relapse and by ensuring prompt referral to a more specialized level of care when symptoms intensify.

Source: WHO, ATLAS on substance use. Resources for the prevention and treatment of substance use disorders, 2010, p.76.

B) Creation of dedicated services for pregnant women using drugs. Services for women in primary health care and facilities for children of parents with drug dependence should be built in close relationship with drug dependence treatment programs (UNODC/WHO, Principles of Drug Dependence Treatment, 2008, p.5).

Case Study

Guidelines for professions to gain understanding of what services for pregnant women with complex social factors could look like

The guidelines contain a number of recommendations on standards of care of pregnant women with complex social factors. It showcases the examples from practice that were identified and provides the contact details of the people involved so that further information can be obtained.

The guidelines are dedicated to professional groups who are routinely involved in the care of pregnant women, including midwives, GPs and primary care professionals and also for those who are responsible for commissioning and planning healthcare and social services. In addition, the guidelines will be of relevance to professionals working in social services and education/childcare settings, for example school nurses, substance misuse service workers, reception centre workers and domestic abuse support workers.

Examples of service for women who misuse substances:

- i. The PrePare Team, Edinburgh, UK.
- ii. Kings College Hospital, London, UK.
- iii. The Women's Alcohol and Drug Service, Nottinghamshire, UK.
- iv. Manchester Specialist Midwifery Service, Manchester, UK.

i. The PrePare Team, Edinburgh

The PrePare team in Edinburgh is a multi-agency service for drug using pregnant women for antenatal care and care up to 3-6 months after birth. It was established in July 2006. It is staffed with two full-time addiction nurses, a full-time health visitor, a full-time midwife, a full-time senior nursery officer, one full-time and one part-time nursery officers, a fulltime manager (with social work background) and a part-time administrator. The team has many years' experience in working with families who have difficulties with substance misuse and other social issues including poverty and poor housing.

PrePare is an outreach programme and appointments are held where they are needed. There is a drop-in session with the midwife and addictions nurse every Thursday from 2-4 p.m. at the Harm Reduction Service in Edinburgh. Appointments can be held at doctors surgeries where appropriate, and the midwife can hire rooms in children's' centers or do home visits. There is a weekly team meeting to discuss new referrals and allocations as well as case planning. A package of care is determined by the team and the orange book guidelines for Lothian's "Working with children living in families affected by parental substance use" is followed.

PrePare accepts referrals from all agencies as well as from individuals: however

51% of referrals received to date came from community midwives. The women referred to PrePare must: have suspected or known illicit drug or alcohol use; be over 16 years; have a confirmed pregnancy; and not be engaging with mainstream services. Additionally, they may have had experience with child protection concerns surrounding previous children.

The antenatal appointments are more frequent and longer than standard care. They happen every two weeks and are at least an hour long. The midwife's main remit is health of the women and baby, but the midwife can also help with benefits, child protection issues and other problems.

Source: National Institute for Health and Clinical Excellence, Description of services for pregnant women with complex social factors, 2012.

Case Study:

Perinatal follow-up of drug addicted pregnant women by the Mobile Addiction Team (AMT) of the Port Royal-Cochin hospital group of Paris, France

The Drug addiction Mobile Team's (EMA) was created in 1998 on the request of a federation of associated medical activities. It came after the establishment of the Cochin hospital group of diverse structures devoted to the struggle against drug addiction: specialised drug addiction treatment centres, several detoxification hospital beds and a specialised consulting service to follow-up seropositive women. Few hospital wards offer such pregnancy healthcares specific to drug addicted women. Pregnancy is a considerable psycho-emotional and psychic event for drug addicted women and it constitutes a good time to initiate drug addiction treatment or medical follow-up.

At the heart of EMA action, the main objective at stake is the future of the unborn baby. The EMA is multi-disciplinary and composed of 5 members: a psychiatrist general practitioner both specialised in drug addictions, a social worker, a nurse and, what is specifically to this team, a midwife. The general objective of the intervention is helping pregnant drug addicts to gain or regain their parental abilities during pregnancy and during the delivery and post-partum period, in order to maintain the relationship between mother and child. Regarding drug addicted mothers and mothers-to-be, current knowledge defends the establishment and maintenance of mother-child relation, enabling the mother to care for the child.

Source: EMCDDA

http://www.emcdda.europa.eu/html.cfm/index52035EN.html?project_id=5876

References

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), A gender perspective on drug use and responding to drug problems, Lisbon, 2006.
Available at: <http://www.emcdda.europa.eu/html.cfm/index34880EN.html>

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), Differences in patterns of drug use between women and men, Lisbon, 2005
Available at: www.emcdda.europa.eu/attachements.../att_34281_EN_TDS_gender.pdf
Instituto da Droga e da Toxicodependência, Manual de Boas Praticas em Reinsercão, 2007
Available at:
http://www.emcdda.europa.eu/attachements.cfm/att_101813_EN_5.%20PT06_Manual%20Reinserc%C3%A7%C3%A3o%201%C2%BA%20caderno%20revisito.doc

Santé Canada, Meilleures pratiques. Intervention précoce, services d'approche et liens communautaires pour les femmes ayant des problèmes attribuables à la consommation d'alcool et d'autres drogues, Ottawa, 2006.
Available at <http://www.hc-sc.gc.ca/hc-ps/pubs/adp-apd/early-intervention-precoce/index-fra.php>

National Institute for Health and Clinical Excellence, Description of services for pregnant women with complex social factors, 2012.
Available at: <http://www.nice.org.uk/nicemedia/live/13167/51326/51326.pdf>

Substance Abuse and Mental Health Services Administration (SAMHSA), Substance Use Treatment among Women of Childrearing Age, in "The NSDUH Report National Survey on Drug Use and Health", 2007.
Available at: <http://www.oas.samhsa.gov/2k7/womenTX/womenTX.pdf>

Substance Abuse and Mental Health Services Administration (SAMHSA), The Dasis Report: Adolescents Treatment Admissions by Gender: 2005, 2007
Available at: <http://www.samhsa.gov/data/2k7/youthTX/youthTX.pdf>

United Nations Office on Drugs and Crime (UNODC), Compilation of Evidence-Based Family Skills Training Programmes, 2010.
Available at: http://www.unodc.org/docs/youthnet/Compilation/10-50018_Ebook.pdf

United Nations Office on Drugs and Crime (UNODC), TreatNet, Drug Dependence Treatment: Community Based Treatment Good Practice, 2008.
Available at: http://www.unodc.org/docs/treatment/CBTS_AB_24_01_09_accepted.pdf

United Nations Office on Drugs and Crime (UNODC), Substance abuse treatment and care for women: Case studies and lessons learned, 2004.
Available at: http://www.unodc.org/pdf/report_2004-08-30_1.pdf

UNODC/WHO, Principles of Drug Dependence Treatment, 2008.

Available at:

http://www.who.int/substance_abuse/publications/principles_drug_dependence_treatment.pdf

World Health Organization (WHO), ATLAS on substance use, Resources for the prevention and treatment of substance use disorders, 2010.

Available at: http://www.who.int/substance_abuse/activities/msbatlaschfour.pdf

WHO/UNODC/UNAIDS, Substitution maintenance therapy in the management of opioid dependence and HIV/AIDS prevention: position paper, 2004.

Available at:

http://www.who.int/substance_abuse/publications/en/PositionPaper_English.pdf

Treatment

2. Integrating gender into substance abuse treatment

Several subgroups within the larger population of individuals affected by drug use disorders require special consideration and often specialized care. These groups with specific needs include adolescents, women, pregnant women, people with medical and psychiatric co-morbidities, sex workers, ethnic minorities, and socially marginalized individuals. A person may belong to more than one of these groups and have multiple needs (UNODC/WHO, *Principles of Drug Dependence Treatment*, 2008, p. 12).

Women tend to have a different experience with both drug dependence and treatment, from that of men. There are major issues related to the high levels of both physical and psychological co-morbidity of women with opioid dependence, which need to be taken into account in the provision of treatment (WHO/UNODC/UNAIDS, *Substitution maintenance therapy in the management of opioid dependence and HIV/AIDS prevention: position paper*, 2004, p. 26).

Clinicians and program administrators are increasingly aware of the important differences between men and women with regard to the physical effects of substance use and the specific issues related to substance use disorders. They are also recognizing that these differences have an impact on treatment—that gender does make a difference. When women's specific needs are addressed from the outset, improved treatment engagement, retention, and outcomes are the result (SAMHSA, *Substance Abuse Treatment: Addressing the Specific Needs of Women*, 2009, p. xvii).

Research shows that addiction for women is a multi-dimensional issue involving complex environmental and psychosocial challenges. Addiction comprises a piece of a larger mosaic that includes a woman's individual background and the social, economic, political, and cultural forces that shape the context of her life. Recent studies confirm that gender differences exist among men and women substance abusers regarding their relationships with family members; for example, women substance abusers tend to have severe family and social problems coupled with minimal family support upon entering treatment. In essence, gender differences are critical considerations when developing substance abuse programs for women. According to research, clinical services for addiction treatment that focus on women's specific issues and needs are more effective for women than traditional programs originally designed for men (Covington S., Bloom B. E., *Gender-Responsive Treatment and Services in Correctional Settings, Women and Therapy*, Elaine Leeder, Editor, Vol. 29, No. 3/4, 2006, pp. 9-33).

Providing comprehensive health-care services that take into full account the needs of women throughout their lives, as well as their multiple roles and responsibilities, is a principle highlighted as key gender-responsive approach to women's health in the so-called Beijing Platform of Action.

Treatment facilities are usually organised around the needs of opioid addicts, who are mainly men. Those treatment interventions that do have a gender-specific component are mainly targeted to women's needs and, in particular, to pregnant drug users or women with children. At the EU level, according to the

EMCCDA, the most common types of gender-specific intervention include case management approaches that facilitate the mediation of care for pregnant drug users, services that specifically address the mothers and fathers of small children and specially designed outreach projects targeted at sex workers (EMCCDA, A gender perspective on drug use and responding to drug problems, Lisbon, November 2006, p. 34).

Studies suggest that factors that encourage a woman to stay in treatment include supportive therapy, a collaborative therapeutic alliance, onsite child care and children services, and other integrated and comprehensive treatment services (SAMHSA, Substance Abuse Treatment: Addressing the Specific Needs of Women, 2009). For instance, women who are allowed to bring along their children during treatment have demonstrated higher rates of retention (UNODC, TreatNet, Drug Dependence Treatment: Community Based Treatment Good Practice, 2008, p.29).

Core Principles for Gender Responsive Treatment for Women

According to the US Department of Health and Human Services there are core principles for gender responsive treatment for women, such as:

- Acknowledging the importance as well as the role of the socioeconomic issues and differences among women.
- Promoting cultural competence specific to women.
- Recognizing the role as well as the significance of relationships in women's lives.
- Addressing women's unique health concerns.
- Endorsing a developmental perspective.
- Attending to the relevance and influence of various caregiver roles that women often assume throughout the course of their lives.
- Recognizing that ascribed roles and gender expectations across cultures affect societal attitudes toward women who abuse substances.
- Adopting a trauma-informed perspective.
- Using a strengths-based model for women's treatment.
- Incorporating an integrated and multidisciplinary approach to women's treatment.
- Maintaining a gender responsive treatment environment across settings.
- Supporting the development of gender competency specific to women's issues.

Source: SAMHSA, Substance Abuse Treatment: Addressing the Specific Needs of Women, 2009

Minimum standards:

- **Identify the range of services that women need** in the specific context. This includes information about and services related to: prevention of HIV, ongoing HIV counselling, family planning; pregnancy-related care; treatment for reproductive and sexually transmitted infection and for opportunistic infections such as

tuberculosis (WHO, Integrating gender into HIV/AIDS programmes in the health sector, 2009, p.19).

- **Individualize treatment plans, and match treatment to identified strengths and issues.** Although there are common threads because of gender, it is important to be sensitive to differences and to acknowledge both similarities and differences (Covington S., Bloom B. E., Gender-Responsive Treatment and Services in Correctional Settings, Elaine Leeder, Editor, Vol. 29, No. 3/4, 2006, pp. 9-33).

- **Analyze the livelihoods of drug dependent women** in relation to the livelihoods of their communities by identifying and increasing their strengths, opportunities, and assets in key areas such as human capital, natural capital, financial capital, physical and social capital. Acknowledging the likelihood that women will return to their partners, programmes need to integrate them in the therapeutic process, and develop “couples-specific” programming (UNODC, TreatNet, Drug Dependence Treatment: Sustained Recovery Management Good Practice, 2008, p.15 and 29).

- **Establish a system of community supervision and reentry** with comprehensive, collaborative services (Covington S., Bloom B. E., Gender-Responsive Treatment and Services in Correctional Settings, Women and Therapy, Elaine Leeder, Editor, Vol. 29, No. 3/4, 2006, pp. 9-33).

- **Provide women with opportunities to improve their socioeconomic conditions** (Covington S., Bloom B. E., Gender-Responsive Treatment and Services in Correctional Settings, Women and Therapy, Elaine Leeder, Editor, Vol. 29, No. 3/4, 2006, pp. 9-33).

A) Develop a formal or informal **referral network among various services** (WHO, Integrating gender into HIV/AIDS programmes in the health sector, 2009, p.19).

Case Study:

DAPHNE Project: Addiction as Chance of Survival? For Women with Experience of Violence

A European project covering the issue of women, violence and addiction led by selected women specific and addiction specific services in Austria, Germany, Ireland and the Netherlands. The project aimed to improve the living conditions of addicted women with experience of violence by provision of target services and improved cooperation between addiction and women specific facilities.

Connections between experiences of violence and addiction behaviour with women have been discussed for a long time but adequate programmes and projects are still missing. Against this background, women-specific and addiction-specific institutions from Austria, Germany, Ireland and the Netherlands dealt in the framework of the DAPHNE Project “Addiction as a Chance of Survival for Women with Experience of Violence?” with the connections between addiction, violence

and gender in case of women and possible measures, offers and cooperation's within a common translational project.

The project aimed to improve the living conditions of addicted women with experience of violence by provision of target specific services and improved cooperation between addiction and women specific facilities. In addition, special focus was given to the improvement of the knowledge base regarding the living conditions of the target group as well as their needs concerning target group specific support and care. Thus, a survey amongst clients was carried out as part of the evaluation.

The results confirm the similarities of socio-demographic characteristics and living conditions of clients of women-specific and/ or addiction-specific institutions. The socio-economic living conditions of the women are very precarious (unemployment, low income, insecure housing etc.). 43 women (83%) have already experienced violence themselves. In the course of the project new target group-specific offers have been developed by the participating institutions and/ or existing ones have been reinforced. The networking between addiction and women specific institutions were re-enforced in a strong way on a structural level (contacts, exchange, cooperation agreements etc.), case-related cooperation however were still quite rare. In the mixed-gender institutions the DAPHNE project has very much promoted the discussion on the topic of "gender" and the "consciousness of gender" within the team and the management.

Source: EMCDDA

http://www.emcdda.europa.eu/html.cfm/index52035EN.html?project_id=3697

References

Center for Substance Abuse Treatment, Substance Abuse Treatment: Addressing the Specific Needs of Women, Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 2009 (Treatment Improvement Protocol (TIP) Series, No. 51.). Available at: <http://www.ncbi.nlm.nih.gov/books/NBK83252/>

Connecticut Department of Mental Health and Addiction Services, Treatment Guidelines, Gender Responsive Treatment of Women With Substance Use Disorders, 2007. Available at: <http://www.ct.gov/dmhas/lib/dmhas/publications/treatmentguidelines.pdf>

Consejo General de Colegios Oficiales de Diplomados en Trabajo Social y Asistentes Sociales, Manual de Buena Práctica para la Atención a Drogodependientes en los Centros de Emergencia, 2005. Available at: <http://www.pnsd.msc.es/Categoria2/publica/pdf/CentrosEmergencia.pdf>

Covington S., Bloom B. E., Gender-Responsive Treatment and Services in Correctional Settings, Women and Therapy, Elaine Leeder, Editor, Vol. 29, No. 3/4, 2006, pp. 9-33.

Covington S, Helping Women Recover: Creating Gender-Responsive Treatment, in L. Straussner and S. Brown, eds., Handbook of Women's Addictions Treatment. San Francisco: Jossey-Bass, 2002. Available at: <http://www.centerforgenderandjustice.org/pdf/5.pdf>

Cruz Roja Española, Juventud, Alcohol y Cocaína: Guía para la intervención, 2010 Available at: <http://www.cruzroja.es/guiajuventud/index.html> and <http://www.cruzroja.es/guiajuventud/descargas.html>

Dipartimento Politiche Antidroga, Cocaina e minori. Linee di indirizzo per le attività di prevenzione e l'identificazione precoce dell'uso di sostanze, edited by Serpelloni G. Bonci A., Raimondo G., Rome, 2009. Available at: http://www.politicheantidroga.it/media/180683/cocaina%20e%20minori_060709_light.pdf

Henry-Edwards S., Humeniuk R., Ali R., Poznyak V., Monteiro M., The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): Guidelines for Use in Primary Care, (Draft Version 1.1 for Field Testing), Geneva, World Health Organization, 2003. Available at: http://www.who.int/substance_abuse/activities/en/Draft_The_ASSIST_Guidelines.pdf

Lewy J., Rough J. N., Songer J. B., Krampe H., et al, Outpatient Long-term Intensive Therapy for Alcoholics (OLITA): a successful biopsychosocial approach to the treatment of alcoholism, In Dialogues in Clinical Neuroscience, 9, 4: 399-412, 2008. Available at: <http://www.dialogues-cns.org/brochures/35/pdf/35.pdf>

Santé Canada, Meilleures pratiques. Intervention précoce, services d'approche et liens communautaires pour les femmes ayant des problèmes attribuables à la consommation d'alcool et d'autres drogues, Ottawa, 2006.

Available at: <http://www.hc-sc.gc.ca/hc-ps/pubs/adp-apd/early-intervention-precoce/index-fra.php>

Socidrogalcohol, Guia clinica de intervencion psicologica en adicciones, 2008.

Available at:

http://www.emcdda.europa.eu/attachements.cfm/att_101798_EN_3.%20GuiaClinicaIntPsicologica.pdf

United Nations Office on Drugs and Crime (UNODC), TreatNet, Drug Dependence Treatment: Community Based Treatment Good Practice, 2008.

Available at: http://www.unodc.org/docs/treatment/CBTS_AB_24_01_09_accepted.pdf

United Nations Office on Drugs and Crime (UNODC), TreatNet, Drug Dependence Treatment: Sustained Recovery Management Good Practice, 2008.

Available at:

http://www.unodc.org/docs/treatment/111SUSTAINED_RECOVERY_MANAGEMENT.pdf

UNODC/WHO, Principles of Drug Dependence Treatment, 2008.

Available at:

http://www.who.int/substance_abuse/publications/principles_drug_dependence_treatment.pdf

UK Department of Health, Drug Misuse and Dependence: UK Guidelines on Clinical Management, 2007.

Available at: http://www.nta.nhs.uk/uploads/clinical_guidelines_2007.pdf

WHO/UNODC/EMCDDA, International guidelines for the evaluation of treatment services and systems for psychosocial substance use disorders, 2000.

Available at: <http://www.unodc.org/docs/treatment/guideevaloftreatment.pdf>

WHO/UNODC/UNAIDS, Substitution maintenance therapy in the management of opioid dependence and HIV/AIDS prevention: position paper, 2004.

Available at:

http://www.who.int/substance_abuse/publications/en/PositionPaper_English.pdf

World Health Organization (WHO), Integrating gender into HIV/AIDS programmes in the health sector, 2009.

Available at: <http://www.who.int/gender/documents/hiv/9789241597197/en/index.html>

World Health Organization (WHO), Treatment of injecting drug users with HIV/AIDS: promoting access and optimizing service delivery, 2006.

Available at:

http://www.who.int/substance_abuse/publications/treatment_idus_hiv_aids.pdf

World Health Organization (WHO), Guidelines for the Psychosocially Assisted Pharmacological Treatment of Opioid Dependence, 2008.

Available at:

http://www.who.int/substance_abuse/publications/Opioid_dependence_guidelines.pdf

Recovery

Integrating gender into sustainable substance abuse rehabilitation

Drug dependence treatment - within an acute care, symptoms-focused paradigm- has fallen short of properly addressing the complex, multi-factorial nature of drug dependence that often follows the course of a relapsing and remitting chronic disease. There is disillusionment with the “admit, treat, and discharge”, revolving door cycles of high dropout rates, post-treatment relapse, and readmission rates. As a response to this situation there is a shift towards a more long-term perspective of sustained recovery management that is much broader and holistic in scope than linear recovery models (UNODC, TreatNet, Drug Dependence Treatment: Sustained Recovery Management Good Practice, 2008, p.14).

Social rehabilitation for drug-addicted individuals should be an integral part of their treatment from the very beginning, and the steps to be followed to reintroduce them into society must begin to be taken during their pharmacological treatment in order to best take advantage of the pharmacotherapy’s stabilizing effect (Dipartimento Politiche Antidroga, Measures and Concrete Actions for the Prevention of Drug-Related Diseases, edited by Serpelloni G. e Simeoni E., 2009, p.5).

Drug dependent persons frequently experience crises in the areas of medical, psychological, social, vocational, and legal well-being, partly due to their particular vulnerability related to negative health and social consequences of drug use and often co-occurring disorders. Women are particularly vulnerable from this point of view. In addition, they face the social stigmatization and punitive barriers that often hamper sustained recovery and social reintegration. Therefore, a continuum of care approach, addressing a range of areas, is especially necessary for sustainable drug rehabilitation and social reintegration efforts (UNODC, TreatNet, Drug Dependence Treatment: Sustained Recovery Management Good Practice, 2008, p.22).

According to WHO, psychological and social interventions have demonstrated to be effective in rehabilitation and relapse prevention, both in out-patient and residential settings. Psychotherapies such as cognitive behavioural therapy, motivational interviewing and contingency management, have shown promising results. Social support interventions like employment programmes, vocational training and legal advice and support have been demonstrated to be effective in facilitating social inclusion (UNODC/WHO, Principles of Drug Dependence Treatment, 2008, p. 9).

On the other hand, the initial risk factors that served as a direct or indirect path to substance use often are the same risk factors that reappear in early recovery and sabotage involvement in continuing care, recovery activities, and abstinence. As an example, women who have a history of substance use that involves a significant relationship appear more likely to leave care prematurely due to the influence of a boyfriend, spouse, or significant other (SAMHSA, Substance Abuse Treatment: Addressing the Specific Needs of Women, 2009).

For women, the ability to regain custody of children can significantly motivate mothers to not only enter and pursue treatment but also to maintain motivation for ongoing recovery after treatment. Mothers in early recovery can face numerous challenges and stressors associated with reunification, including time pressures in establishing recovery to avoid termination of parental rights, the maintenance of recovery activities while assuming the parenting role, the management of affect associated with the impact of their past drug and alcohol use on their children's physical and mental health, effective implementation of parenting skills, and others. As a provider, it is important to not only acknowledge the mother's initial enthusiasm and motivation for reunification, but also incorporate preparatory skills, including parenting, stress and anger management, and problem solving to help fortify personal resources in anticipation of future parenting and childcare issues and challenges (SAMHSA, Substance Abuse Treatment: Addressing the Specific Needs of Women, 2009).

Family involvement, social supports, and leisure activities have thus proven to contribute to better outcomes in the treatment and rehabilitation process.

The key elements of the recovery framework

The international scientific literature has identified a series of key elements that could be defined as essential in an effective recovery framework.

- **Has a strengths-based, client-centred focus.** The model empowers the individual to move towards a healthy, productive, and meaningful life. Thus the ultimate owner of successful rehabilitation and social reintegration is the client.
- **Is recovery outcomes driven. Recovery is intended as a continuum process.** With access to good practices and evidence based services the client can be assisted through the stages of rehabilitation and social reintegration to build the necessary resources for a meaningful life in the community. There are many pathways to long-lasting change and stability, regaining a sense of self-identity and self-esteem, (re)discovering one's meaning and purpose in life; and developing stronger interpersonal and community relationships. Recovery supports can help explore the ways that are best suited to a client's needs.
- **Realizes that context influences the recovery process and the likelihood of recovery outcomes.** A person's background, culture, gender, past experiences, external factors (e.g., punitive policies promoting social exclusion, stigma and discrimination, and adverse agro-ecological factors; institutional barriers), employment and training opportunities, housing and social exclusion, all greatly influence recovery outcomes.
- **Promotes cultural relevance and gender sensitivity.** It is open to the integration of cultural practices and community support into treatment and social reintegration. Also, it facilitates gender mainstreaming by taking into account, while planning projects, the barriers that make access to treatment difficult for women (e.g., stigma, inflexible schedules, distance from home, and lacking day-care for children).
- **Aims at promoting assertive approaches to integrated and continuing care.** These approaches emphasize building long-term supportive relationships

with clients, and providing continuity of service to increase their recovery capital. Duration and intensity of check-ups and monitoring also vary during periods of increased vulnerability for relapse.

- **Integrates clients' respective families and/or significant others as both participants and partners in the recovery process.** This is demonstrated by actively involving them in client engagement, development of clients' recovery plans and processes. Social support can play an important role in the process of rehabilitation and reintegration.

- **Sees the community as a reservoir of resources, opportunities, and support.** Recognizing that no single organization and/or institution can provide all the essential resources necessary to provide a continuum of care, it favors and promotes developing recovery supports through community networking and collaboration with multiple entities and resource. The focus is on educating the public, through advocacy, on the benefits of recovery, and collaborating with existing recovery support resources to develop integrated recovery strategies and services. Creating meaningful participation in the community is a key component of the recovery framework.

- **Recognizes that combating and overcoming the stigma of drug dependence is essential** to gain and maintain the community's support in the individual's recovery process. Therefore, advocacy to influence and convince decision makers, educate service providers, and society at all levels about the issue of drug dependence and the benefits of drug dependence treatment and rehabilitation for the individual and the community is encouraged.

Source: UNODC, TreatNet, Drug Dependence Treatment: Sustained Recovery Management Good Practice, 2008, p.15-16.

Case Study

Women's Collective: ARKEN (Norway)

The women's' cooperative ARKEN is a treatment institution for women drug users. ARKEN utilizes a great deal of the ideology associated with the AA movement's 12-step program (Alcoholics Anonymous). Through treatment one seeks to create a gradual transformation in the drug addict's thought patterns related to lifestyle and priorities.

ARKEN and the Stensløykka resource centre (aftercare/work rehabilitation institution) comprise a treatment package with clear goals and work together to get the client through the process towards a drug-free independent existence. The treatment alternative provides a framework that gives the women both care and social inclusion. Stensløykka resource centre seeks to take care of the women's' needs through a rehabilitation process that reflects the entire spectrum of daily activities; that is both education/work, housing and leisure activities.

Evaluations from 1996 show that 17 of the 40 women addicts were drug-free after treatment. These had either had shorter stints with drug intoxication or had fewer

traumatic experiences than the other women. 13 of them had completed treatment, against a small number who currently use drugs. 16 of the 17 drug-free women are in school or working. The drug-free women had changed their relationships. They choose drug-free partners and friends, and take better care of themselves in conflict ridden relationships. They seek rehabilitation, and their demand for social services has dropped dramatically.

Source: EMCDDA

http://www.emcdda.europa.eu/html.cfm/index52035EN.html?project_id=3136&tab

Case Study:

Vocational Training and Promotion of Micro-enterprises in the Cochabamba Tropics BOLIVIA

This case study describes an experience in an interagency cooperation project between UNODC and the International Labour Organization (ILO), which has applied a strategy in support of integral development in coca production areas. Recognizing urban tendencies and population dynamics in the coca producing area of the Tropics of Cochabamba, a vocational training and support plan for the micro-enterprise sector strategy was designed specifically to promote labour skills for the non-agricultural market among young people between 15 and 34 years of age.

Process/Activities:

- Specific courses were identified for women based on their interests and competencies.
- Ninety-eight training modules were developed based on market demand. The courses lasted from 1 to 6 months with an average strength of 25 students. Some of the courses identified were: Food processing; dress making/tailoring; harvesting and packing of agricultural crops; carpentry; masonry; baking and cooking; hospitality services; painting; electrical work; car mechanics; and artisan crafts.
- Micro enterprises were promoted, by addressing issues such as production process, business administration, cost calculation, and access to credit.
- Ongoing coordination with government offices was encouraged and implemented.
- Human resources development was undertaken to support various projects.

Lessons Learned:

- Removing barriers that could prevent women from participating in the project were taken into account (e.g., schedules, distance from home, custody of small children, and teaching in the local language).
- The methodology of learning-by-doing was most effective.

Source: UNODC, TreatNet, Drug Dependence Treatment: Sustained Recovery Management Good Practice, 2008, p. 52.

Case Study:**Family Therapy Programme and Vocational Training, Chennai, India**

TT Ranganathan Clinical Research Foundation (also known as TTK Hospital) started their primary care treatment programme for drug-dependent individuals in 1982.

The families who accompanied clients for treatment were deeply affected emotionally and economically through the drug dependence of their family member, especially in the case of relapses. Recognizing the fact that relationship with the family is an essential element in recovery, in 1985, TTK Hospital developed and initiated an exclusive two-week programme for families. One family member must attend this free programme, which was designed with the twin purposes of helping families to get out of their problems and become functional while, at the same time, developing their preparedness to support the patient in recovery.

At some point, the centre felt the need to equip some family members with a vocational skill leading to economic and social rehabilitation. TEJAS Vocational Training Centre was set up at the TTK Hospital in 1999 with support from Deutscher Orden and the European Commission. Tejas, which means “brightness” in Sanskrit, offers a safe and supportive environment for family members to acquire training in a vocational skill.

Process/Activities:

In the family therapy programme, the day starts with the serenity prayer and a meaningful story conveying a thought for the day. This approach gives families an opportunity to reflect on and share their feelings about the thought. This is followed by input sessions that provide information about drug dependence and practical coping methods. Trained counsellors provide group therapy and individual counselling. Al-Anon meetings are also held twice a week at the premises to enable mutual assistance in handling problems.

On completion of the two-week programme, family members who are looking for vocational skills training to earn a livelihood join TEJAS to learn tailoring. Tailoring was identified as a viable vocation skill because of market demand. It is also easy to learn, and entrepreneurship is possible with a small investment.

Contact was made with potential buyers. A ready market was found in industrial areas in the form of cooking contractors who would place orders for bags. Once training was completed, small loans were made available to those interested in buying tailoring machines to work on their own; others would take orders from the centre and work from their homes.

Some persons in recovery and their families continue to work in the unit and earn a stable income.

Lessons Learned:

- The centre found that family therapy, including learning a vocational skill, empowers families, which is the ultimate gain.
- By learning tailoring skills, family members are able to be economically

independent and take care of their children in spite of their spouses' repeated relapses. This has also contributed to the strengthening of self-confidence in family members.

- Many women have established their own small tailoring units in their homes, and are able to manage their families' needs with the income earned.

Source: UNODC, TreatNet, Drug Dependence Treatment: Sustained Recovery Management Good Practice, 2008, p. 74-78.

References

Center for Substance Abuse Treatment, Substance Abuse Treatment: Addressing the Specific Needs of Women, Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 2009 (Treatment Improvement Protocol (TIP) Series, No. 51.).

Available at: <http://www.ncbi.nlm.nih.gov/books/NBK83252/>

Connecticut Department of Mental Health and Addiction Services, Treatment Guidelines. Gender Responsive Treatment of Women with Substance Use Disorders, 2007.

Available at: <http://www.ct.gov/dmhas/lib/dmhas/publications/treatmentguidelines.pdf>

Covington S., Bloom B. E., Gender-Responsive Treatment and Services in Correctional Settings, Women and Therapy, Elaine Leeder, Editor, Vol. 29, No. 3/4, 2006, pp. 9-33.

Santé Canada, Meilleures pratiques. Intervention précoce, services d'approche et liens communautaires pour les femmes ayant des problèmes attribuables à la consommation d'alcool et d'autres drogues, Ottawa, 2006.

Available at: <http://www.hc-sc.gc.ca/hc-ps/pubs/adp-apd/early-intervention-precoce/index-fra.php>

UK Drug Policy Commission (UKDPC), Adult family members and carers of dependent drug users: prevalence, social cost, resource savings and treatment responses, edited by Copello, Templeton and Powell, November 2009.

Available at:

http://www.ukdpc.org.uk/resources/UKDPC_Families_of_drug_users_research_report_final.pdf

United Nations Office on Drugs and Crime (UNODC), Drug abuse treatment and rehabilitation. A practical planning and implementation guide, 2003.

Available at: http://www.unodc.org/pdf/report_2003-07-17_1.pdf

United Nations Office on Drugs and Crime (UNODC), TreatNet, Drug Dependence Treatment: Community Based Treatment Good Practice, 2008.

Available at: http://www.unodc.org/docs/treatment/CBTS_AB_24_01_09_accepted.pdf

United Nations Office on Drugs and Crime (UNODC), TreatNet, Drug Dependence Treatment: Sustained Recovery Management Good Practice, 2008.

Available at:

http://www.unodc.org/docs/treatment/111SUSTAINED_RECOVERY_MANAGEMENT.pdf

UNODC/WHO, Principles of Drug Dependence Treatment, 2008.

Available at:

http://www.who.int/substance_abuse/publications/principles_drug_dependence_treatment.pdf

International legal framework

CND Resolution 54/5 “Promoting rehabilitation- and reintegration - oriented strategies in response to drug use disorders and their consequences that are directed at promoting health and social well-being among individuals, families and communities”, 2011.

Available at: http://www.unodc.org/documents/commissions/CND-Res-2011to2019/CND54_5e1.pdf

CND Resolution 53/9 “Achieving universal access to prevention, treatment, care and support for drug users and people living with or affected by HIV”, 2010.

Available at: http://www.unodc.org/documents/commissions/CND-Res-2000-until-present/CND53_9e.pdf

CND Resolution 55/5 “Promoting strategies and measures addressing specific needs of women in the context of comprehensive and integrated drug demand reduction programmes and strategies”, 2012.

Available at: http://www.unodc.org/documents/commissions/CND-Res-2011to2019/CND-Res-2012/Resolution_55_5.pdf

CND Resolution 53/10 “Measures to protect children and young people from drug abuse”, 2010.

Available at: http://www.unodc.org/documents/commissions/CND-Res-2000-until-present/CND53_10e.pdf

CND Resolution 53/1 “Promoting community-based drug use prevention”, 2010.

http://www.unodc.org/documents/commissions/CND-Res-2000-until-present/CND53_1e.pdf

CND Resolution 51/2 “The consequences of cannabis use: refocusing prevention, education and treatment efforts for young people”, 2008.

Available at: <http://www.unodc.org/documents/commissions/CND-Res-2000-until-present/CND-2008-Session51/CND-51-Res-2008-02e.pdf>

United Nations, Convention on Psychotropic Substances, 1971

Available at: https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=VI-16&chapter=6&lang=en

United Nations Fourth World Conference on Women. Platform for action: Women and health, Beijing, China, 1995.

Available at: <http://www.un.org/womenwatch/daw/beijing/platform/health.htm>

United Nations General Assembly, Declaration on the Guiding Principles of Drug Demand Reduction (Resolution S-20/3), 1998.

Available at: <http://www.un.org/ga/20special/demand.htm>

United Nations, Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol.

Available at: http://www.unodc.org/pdf/convention_1961_en.pdf

Annex II

DAWN First Plenary Conference: conclusions and recommendations Rome, 28-30 March 2011

I. ESTABLISHING A RELIABLE KNOWLEDGE BASE:

- Need to rely on a set of statistical and epidemiological data for the correct understanding of the social and medical aspects of addiction, at least at the European level, with particular regard to: drug use behaviours, type of substances used, patterns of use, trends of use.
- Analysis of specific aspects include: initiation to drug use, the role of gateway drugs, the trends of stimulants abuse and of the non prescribed use and abuse of prescription drugs (growing trend in Europe), globalization and its effects on male/female drug taking behaviours (females consuming trends and behaviours more and more similar to males), specific female vulnerability.

II. FOCUSING ON SPECIFIC CRITICAL AREAS (TO BE DEVELOPED AND/OR THAT NEED FURTHER RESEARCH):

- Adolescents at risk: self esteem/self perception in teenager girls: sexy photos and images posted on social networks and/or blogs in exchange for drugs or for small tokens such as cell telephone cards etc.
- Non-medical use and abuse of prescription drugs among adolescents.
- Unwanted pregnancies.
- Management of drug use during pregnancy.
- Children of parents who use/abuse substances: balance to be found between the need to protect the child and the need to avoid separation from natural parents, especially the mothers. Special case: children participating in the recovery process (living with their parents in rehabilitation communities or in protected shelters). Need for teaching parental functions to mothers who use/abuse substances.
- Prostitution as a means to obtain drugs/maintain addiction.
- Sexual abuse and violence against women.
- Women who get involved in drug trafficking/criminal offences due to their drug addiction or due to a drug addicted partner; women in the criminal justice system.
- Increased vulnerability of women due to partner's addiction.
- HIV and other STD incidence in women.
- Eating disorders and correlation with use/abuse of cocaine and stimulants.
- Psychiatric disorders and suicidal risk in women.
- Immigrant women and stigmatization from society and from same ethnic group members.
- Effectiveness of selective prevention vs universal prevention. Selective prevention programmes should be directed at least to youth, parents teachers.
- Treatment through adequate pharmacological therapy and psychological support.

- Prevention and treatment of related pathologies and of related physical violence.
- Recovery and rehabilitation with long term follow up and accompaniment.

III. ESSENTIAL REQUIREMENTS FOR GENDER-ORIENTED OFFERS AND SERVICES (SUSTAINABLE AND EVIDENCE BASED EFFECTIVENESS):

- **Effectiveness** of prevention, treatment and rehabilitation programmes provided by private and public health addiction units and departments should always be measured on **scientific evidence** and **sustainability**.
- Adequate **monitoring** systems and **accountability procedures** should always be in place within public health systems for drug addiction, in order for health professionals to be able to provide **outcome indicators** and **cost analysis** for the services delivered. This would allow for policy makers to make better decisions in the **identification and allocation of relevant financial resources** and for health and social services to be more protected from budget cuts, especially in times of economic crises or budgetary shortages, as the services provided and the financial costs attached to them would be seen in terms of **long term investments in public health**.
- The need for monitoring and evaluation of results is also reinforced by the fact that according to the latest statistics, public health services for drug addiction is used by less than 50% of the total estimated population of drug users and that, on average, a drug user first contact with the public health services happens 7 - 8 years after the beginning of his/her addictive career.
- Finally, next to the recognition that women drug users are more subject to social, psychological and health vulnerability than men, we should also stress out that women are more resilient when faced with difficulties.
- The concept of **Resilience** should be valued in all programmes, as there is increasing evidence that teaching how to build resilience is more important and useful than simply teaching how to not use drugs.
- Overall, further research and insight is needed to clarify and explore the concepts of **accessibility, affordability and acceptability** of services to women, especially through direct interviews with and the administration of questionnaires to clients of addiction services.

Annex III

United Nations Economic and Social Council Commission on Narcotic Drugs Fifty-Fifth Session, 12-16 March 2012

Resolution 55/5

Promoting strategies and measures addressing specific needs of women in the context of comprehensive and integrated drug demand reduction programmes and strategies

The Commission on Narcotic Drugs,

Stressing the commitments contained in the Political Declaration and Plan of Action on International Cooperation towards an Integrated and Balanced Strategy to Counter the World Drug Problem,¹ adopted during the high-level segment of the fifty-second session of the Commission and by the General Assembly in its resolution 64/182 of 18 December 2009, in which it was stated that Member States should ensure that a broad range of drug demand reduction services provided approaches that took into account gender considerations and served the needs of vulnerable groups,

Recalling the Declaration on the Guiding Principles of Drug Demand Reduction,² which states that demand reduction programmes should be effective, relevant and accessible to those groups most at risk, taking into account differences in gender, culture and education,

Recalling also the Declaration on the Elimination of Violence against Women,³ which states that women are entitled to the right to the highest attainable standard of physical and mental health,

Recalling further the commitments that must be made to inform all activities of the United Nations system with respect to the human rights of women, as expressed in the Vienna Declaration and the Programme of Action adopted by the World Conference on Human Rights,⁴

¹ See Official Records of the Economic and Social Council, 2009, Supplement No. 8 (E/2009/28), chap. I, sect. C.

² General Assembly resolution S-20/3, annex.

³ General Assembly resolution 48/104.

⁴ A/CONF.157/24 (Part I), chap. III.

Reaffirming the commitments to end all discrimination against women expressed in the Convention on the Elimination of All Forms of Discrimination Against Women,⁵ and in specific the commitment to achieve equal treatment for women in access to health services,

Recalling the commitments made in the United Nations Millennium Declaration⁶ to promote gender equality,

*Recalling also that the Millennium Development Goals Report 2010*⁷ stressed that access to care for women was still very problematic in several regions,

Recalling further its resolution 54/5 of 25 March 2011, in which it recognized that drug dependence was a chronic but preventable and treatable multifactorial health disorder, and stressing the need to provide a full continuum of policies and programmes that promote prevention, early detection and intervention, treatment, care and related support services for rehabilitation, social reintegration and recovery,

Recalling the Beijing Declaration and Platform for Action adopted at the Fourth World Conference on Women,⁸ which states that women have the right to the enjoyment of the highest attainable standard of physical and mental health, and convinced that girls and women should be provided access to health services developed specifically for their needs,

Recalling also General Assembly resolution 65/228 of 21 December 2010, in which the Assembly adopted the updated Model Strategies and Practical Measures on the Elimination of Violence Against Women in the Field of Crime Prevention and Criminal Justice, and General Assembly resolution 65/229 of 21 December 2010, in which the Assembly adopted the United Nations Rules for the Treatment of Women Prisoners and Non-custodial Measures for Women Offenders (the Bangkok Rules),

Recognizing that there is a need for more evidence-based information on all aspects of substance abuse, in particular regarding women-specific aspects, including physiological and psychosocial effects, the characteristics of women with substance use problems and their treatment experiences and also a need to use that information while developing and implementing programmes and strategies,

Concerned that women with substance abuse problems are often deprived of or limited in their access to effective treatment that takes into account their specific needs and circumstances,

⁵ United Nations, Treaty Series, vol. 1249, No. 20378.

⁶ General Assembly resolution 55/2.

⁷ United Nations publication, Sales No. E.10.I.7.

⁸ Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995 (United Nations publication, Sales No. E.96.IV.13), chap. I, resolution 1, annex I.

Aware that enhanced educational and employment opportunities for women significantly decrease the risk of their drug abuse and dependence and their involvement in drug-related crimes,

Taking into account the need to develop and implement drug demand reduction measures so that they respond best to the specific needs of drug-dependent women and women who abuse drugs, including designated services specifically devoted to those women,

Noting with great concern the adverse consequences of drug abuse for individuals and society as a whole, reaffirming its commitment to tackle those problems in the context of comprehensive, complementary and multisectoral drug demand reduction strategies, in particular such strategies targeting youth, noting with great concern the alarming rise in the incidence of HIV/AIDS and other blood-borne diseases among injecting drug users, reaffirming its commitment to work towards the goal of universal access to comprehensive prevention programmes and treatment, care and related support services, in full compliance with the international drug control conventions and in accordance with national legislation, taking into account all relevant General Assembly resolutions and, when applicable, the WHO, UNODC, UNAIDS Technical Guide for Countries to Set Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users,⁹ and requesting the United Nations Office on Drugs and Crime to carry out its mandate in this area in close cooperation with relevant organizations and programmes of the United Nations system, such as the World Health Organization, the United Nations Development Programme and the Joint United Nations Programme on HIV/AIDS,

1. *Urges* Member States to consider incorporating female-oriented programmes in their drug policies and strategies;

2. *Encourages* Member States to integrate essential female-specific services in the overall design, implementation, monitoring and evaluation of policies and programmes addressing drug abuse and dependence, where needed;

3. *Recommends* that Member States consider and accommodate the specific needs of drug-dependent parents, including childcare and parental education;

4. *Also recommends* that Member States, in designing, implementing and evaluating integrated drug prevention and treatment and HIV prevention programmes, take into account the needs of women who have experienced sexual and other violent trauma related to drug abuse;

5. *Encourages* Member States to take into account the specific needs of women in the prevention, early detection and intervention, treatment and care of drug dependence and drug-related diseases, including infectious diseases and psychiatric disorders, as well as related support services, including for rehabilitation,

⁹ Geneva, World Health Organization, 2009.

reintegration and recovery, and to consider designing those services using a multi-agency approach so as to include specific female-oriented measures, promoting effective modalities such as special group offerings for women in inpatient and outpatient settings, family-based treatment and extra occupational training for women as part of recovery activities;

6. *Invites* Member States to consider implementing, where needed, female-oriented guidelines and quality standards in their drug policies in order to maximize coherence with existing activities, efficient allocation of resources and positive outcomes for drug-dependent women and their children;

7. *Encourages* Member States to consider promoting the implementation of the updated Model Strategies and Practical Measures on the Elimination of Violence against Women in the Field of Crime Prevention and Criminal Justice, as well as the United Nations Rules for the Treatment of Women Prisoners and Noncustodial Measures for Women Offenders (the Bangkok Rules), particularly those provisions related to prevention and treatment programmes designed for women substance abusers, including those in prison settings, taking into account incidents of violence against women, prior victimization, the special needs of pregnant women and women with children, and their diverse cultural backgrounds;

8. *Urges* Member States to identify and firmly counter discrimination against, as well as degrading and undignified treatment of, drug-dependent women and women who abuse drugs, while simultaneously offering such women timely access to counselling, including voluntary HIV counselling and testing, and treatment and support services for rehabilitation and social integration that take into account the specific needs of women, including parental responsibilities and recovery from trauma related to drug abuse suffered as a result of sexual or other forms of violence;

9. *Encourages* Member States to consider providing a wide range of measures that match the specific needs of women affected by drug abuse, including pregnant women and women who are parents or guardians with children;

10. *Calls upon* Member States to pay due attention to the specific needs of women while applying the relevant target goals as set forth in the Political Declaration on HIV and AIDS adopted by the General Assembly in its resolution 65/277 of 10 June 2011 and incorporating those goals in their relevant national strategies and measures as set forth in the Political Declaration and Plan of Action on International Cooperation towards an Integrated and Balanced Strategy to Counter the World Drug Problem;¹⁰

11. *Invites* the United Nations Interregional Crime and Justice Research Institute to share with it and with the United Nations Office on Drugs and Crime the information on experiences with respect to relevant programmes and measures

¹⁰ See Official Records of the Economic and Social Council, 2009, Supplement No. 8 (E/2009/28), chap. I, sect. C.

addressing specific needs of women, with a view to considering appropriate follow-up measures;

12. *Encourages* the United Nations Office on Drugs and Crime to raise awareness among United Nations agencies regarding the need to design educational and employment opportunity modules that may be used in programmes and strategies to prevent drug abuse and dependence and the involvement of women in drug-related crimes;

13. *Invites* the United Nations Office on Drugs and Crime to work with relevant United Nations agencies, including the United Nations Interregional Crime and Justice Research Institute, to assist and support Member States in developing and adapting measures and strategies, at the national, regional and international levels, addressing the specific needs of women as an essential element of more effective, just and human rights-based policies;

14. *Requests* the United Nations Office on Drugs and Crime to facilitate the gathering and dissemination of information provided by Member States on their efforts to implement the present resolution;

15. *Also requests* the United Nations Office on Drugs and Crime to integrate into its future public-awareness campaigns information emphasizing the importance of an integrated approach to the specific needs of women;

16. *Invites* the United Nations Office on Drugs and Crime to coordinate as appropriate with civil society and the private sector in addressing the specific needs of women in the context of drug demand reduction, with a view to the expansion of the range and coverage of programmes addressing drug abuse and dependence of women, in accordance with national legislation and in full compliance with the international drug control conventions;

17. *Invites* Member States and other donors to consider providing extrabudgetary resources for these purposes in accordance with the rules and procedures of the United Nations.

*9th Plenary Meeting
16 March 2012*



UNICRI
information@unicri.it
www.unicri.it



PRESIDENZA DEL CONSIGLIO DEI MINISTRI
Dipartimento Politiche Antidroga

Presidenza del Consiglio dei Ministri
Dipartimento Politiche Antidroga
www.politicheantidroga.it