Gender Differences in the Treatment of Substance Use Disorders

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In 1978, First Lady Betty Ford publicly acknowledged she was recovering from drug and alcohol addiction. This was a pivotal moment in the treatment of women with addictions; it helped to destigmatize addiction, and spurred new women-focused research in the field. Since that time, researchers and practitioners have been reevaluating the unique biological, psychological, and social factors that contribute to the development and maintenance of substance use disorders (SUDs) among women. Although the need for women-only alcohol treatment facilities was recognized as early as the nineteenth century in North America (White, 2002), little was known about alcohol and drug-related sex and gender differences. Historically, addiction research has focused on men with little to say on the biology or circumstances of women. However, in recent decades a new body of research has emerged that examines how sex and gender contribute to differences in the onset, progression and treatment of substance abuse in women. To prevent and treat SUDs in women, the etiologies, patterns of drug use and abuse, and unique treatment needs of women must be better understood. The purpose of this paper is to take a comprehensive look at the existing literature on gender-based differences in addiction treatment including barriers to treatment, unique treatment needs, and the outcomes of women-only and mixed-gender treatment programs.

Prevalence of SUDs in Women and Barriers to Treatment

Traditionally, men have exhibited higher rates of drug abuse and dependence (Compton, Thomas, Stinson, & Grant, 2007); however, according to recent epidemiological surveys, the gender gap between adult men and women may be narrowing—at least for certain drugs in western countries (Colell, Sánchez-Niubò, & Domingo-Salvany, 2013; Keyes, Li, & Hasin, 2011). Among students in Europe, the average gender gap for heavy episodic drinking shrank 12 percent points between 1995 and 2011. Additionally, for non-prescription use of tranquilizers or sedatives, girls were 3-4 percentage points above the boys in all 5 data collection waves since 1995 (Hibell et al., 2012). We are seeing
similar trends in Canada. In 2012, it was reported that women received almost one third of the total number of SUD diagnoses (Pearson, Janz, & Ali, 2013).

Despite this phenomenon of gender convergence, women continue to be underrepresented in the treatment population (Pirie, & National Treatment Indicators Working Group, 2015). The reason for this discrepancy between the number of women who need treatment and the number of women who access treatment is multifactorial. A comprehensive review of the literature by Taylor in 2010 identified six common barriers that prevent women from entering into, or completing treatment programs: lack of child care, fear of stigma, lack of family support, lack of financial support and treatment accessibility, denial, and co-occurring substance use and mental disorders. In 2004, The United Nations Office on Drugs and Crime (UNODC) published *Substance abuse treatment and care for women: Case studies and lessons learned* in which they identified multiple systemic, structural, social, cultural, and personal barriers for women in need of treatment. Systemic barriers include—but are not limited to—problems such as the underrepresentation of women in positions of power that can influence policy and resource allocation in the field of substance abuse treatment; a limited awareness of gender differences in factors that determine health status and health outcomes—such as biology, education, employment status, and safe housing; and a lack of appropriate gender-responsive, evidence-based treatment models.

Structural barriers are among the most obvious and often-cited barriers to SUD treatment for women. This category of barriers includes child care issues, the cost and location of treatment, and inflexible program schedules. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), only 7% of treatment facilities in the United States provide child care services (The N-SSATS Report, 2014). Women may also face challenges in accessing the services due to conflict with work schedules, transportation issues, or household responsibilities. Few programs offer outreach services (program delivery beyond the traditional fixed location of an office or treatment center) or service during the evenings and weekends. Women are often the primary or sole provider for
the family. With no access to child care or a source of income, treatment options may be severely limited.

Another kind of structural barrier women encounter is a lack of substance abuse identification and treatment referral. Gender-based differences in the identification of SUDs and treatment referral rates have been identified by multiple sources. Compared with men, problematic substance use is less likely to be identified for women in health care settings (Brienza & Stein, 2002), and women are also less likely to be referred for substance use treatment by their employers or school (Morgenstern & Bux, 2003). Additionally, when substance abuse is recognized and treated in women, they are more likely than men to receive help from a primary care provider or a mental health program than to receive care from a specialized substance abuse treatment facility (Green, 2006). This practice is especially troubling in light of research that shows women with SUDs experience problems of greater severity and more health-related consequences than men (Bradley, Badrinath, Bush, Boyd-Wickizer, & Anawalt, 1998). There is an accelerated progression among women from the initiation of drug use, to the onset of dependence and admission to treatment (Wagner & Anthony, 2007). This telescoping phenomenon has meant that women enter treatment for substance abuse with more medical, behavioral, and social problems than men despite having used the substance for a shorter period of time. The complex needs of women with SUDs are more likely to be identified and addressed in a specialized treatment facility than by a primary care provider or mental health program; unfortunately a woman is less likely to receive this referral.

The personal barriers women encounter are often deeply influenced by social practices and cultural norms. Women are more likely than men to report stigmatization as a treatment barrier (Khan et al., 2013) and they are more likely to experience guilt and shame surrounding their substance use (Nelson-Zlupko, Dore, Kauffman, & Kaltenbach, 1996), especially if they believe they have failed to live up to society's expectations of what it means to be a woman, a wife, or a mother. In countries
where gender roles are strongly defined and women are not empowered, the stigma of addiction can be especially significant. This may result in a general lack of appropriate treatment services for women. For example, as of 2008 in Afghanistan there were only three state-funded residential drug treatment facilities with child care services despite high levels of problematic heroin and opium dependence among women (United States Department of Defense, 2010).

Pregnancy and child custody concerns are another common and significant barrier for women in need of treatment. In some jurisdictions, use of illicit drugs or alcohol during pregnancy can result in criminal charges and imprisonment. An unfortunate consequence of these punitive measures is that women who would otherwise seek treatment are too afraid to ask for help. Women who already have children may be concerned that child welfare services will become involved and remove the children from the home. It is imperative that policy-makers and legal representatives consider the unintended consequences of their policies and practices. The development of a women-focused SUD treatment strategy must begin with a careful review of the literature on barriers to treatment, and a collaborative effort between organizations and agencies to reduce or eliminate those barriers.

Unique Treatment Needs

Both men and women benefit from comprehensive treatment programs that encompass the full continuum of care. Ideally, there is a continuity of care from medically managed detox to residential or outpatient services to aftercare or transitional living. In addition to these shared needs, men and women also have unique treatment needs. For women, there is often a need to focus on issues relating to mental health, intimate relationships, domestic violence, sexual trauma, safe housing, financial security, parenting, custody, and pregnancy.

Women are more likely than men to suffer with a concurrent mental health disorder such as depression, anxiety, post-traumatic stress disorder (PTSD), and eating disorders (Albert, 2015; McLean, Asnaani, Litz, & Hofmann, 2011). Integrative treatment models that recognize both the SUD
and mental illness as primary, interconnected conditions offer the most effective treatment for comorbidity (Kelly, Daley, & Douaihy, 2012). When professionals are able to communicate with one another regarding a client's unique needs and develop a treatment plan that addresses both the mental health disorder and substance use, it establishes a solid foundation for recovery.

Closely linked with mental health disorders and the etiology of addiction among women is childhood sexual and physical abuse. Studies of women in treatment programs indicate that 30 to 75% have been victims of childhood sexual abuse (Marcenko, Kemp, & Larson, 2000). It has been established that unresolved trauma is associated with both the severity and duration of drug use (Simmons, 2000). It follows therefore that incorporating therapeutic interventions to help women cope with past trauma may reduce the risk of relapse.

In addition to mental health disorders and childhood trauma, the recovery of women is also affected by the quality of their intimate relationships. Psychosocial variables and interpersonal factors affect women with SUDs in a more pronounced way than in men (Marcenko, Kemp, & Larson, 2000). When the partner is supportive, the relationship has the potential to be protective against relapse (Riehman, Hser, & Zeller, 2000). However, research findings indicate that women with SUDs are more likely to have a partner who abuses drugs or alcohol, and these relationships are strongly related to relapse rates for women (Greenfield, Back, Lawson, & Brady, 2010). Additionally, if a woman in treatment develops a relationship with a new partner who discontinues treatment she is less likely to successfully complete the program herself (Ravndal & Vaglum, 1994). Women who suffer with SUDs are also more likely to have been involved in a violent and abusive relationship. Up to 90% of female participants in treatment programs have histories of domestic violence, and these relationships are strongly associated with obstructing women's recovery efforts (Price & Simmel, 2002). The relationship between domestic violence and substance abuse presents as a vicious cycle whereby increased substance abuse fuels domestic violence and domestic violence increases substance abuse.
(Kilpatrick, Acierno, Resnick, Saunders, & Best 1997). Considering the prevalence of domestic violence among women with SUDs, and the high risk for relapse associated with these relationships, treatment programs that do not address these issues are ignoring a critical need for women in recovery.

Another critical need for women in treatment is the establishment of a supportive network to address issues of child care, parenting and pregnancy. Providing mothers with flexible and accessible programming—such as transportation, outreach programs and child-care services—has been shown to improve treatment outcomes for women (Marsh, D’Aunno, & Smith, 2000). Despite this finding, very few treatment programs offer child care services, and even fewer offer structured parenting skills training (Arria et al., 2013). Given that we know children of parents with SUDs are at an increased risk for developing a SUD (Anda et al., 2002), and parenting practices seem to be an important mediator of this risk (Handley & Chassin, 2013; Latendresse et al., 2008), it is surprising and disappointing that more treatment facilities do not take a proactive approach to treating addiction.

Pregnant women who enter treatment for substance use also present with some unique needs. These women often delay (Marcenko, Spence, & Rohweder, 1994) or deliberately avoid contact with health services (Maupin et al., 2004) due to the stigmatization and perceived negative attitudes toward the mother by health care professionals. Treatment facilities that are sensitive to the needs of women are in a good position to connect pregnant women with health professionals who are known to be educated on the physical needs of the fetus and the emotional and supportive needs of the mother, ensuring that pregnant women receive appropriate perinatal care.

Comprehensive treatment for women should also include social reintegration approaches during discharge planning and aftercare services. Women with SUDs are more likely than men to be unemployed or underemployed, and to be under more financial stress. Connecting women with the appropriate skills development or employment training services, and ensuring they have access to safe and affordable housing, are critical components in helping women get reestablished within society. Not
only does employment improve a woman's financial status, it also improves self-efficacy and self-esteem (Azar & Vasudeva, 2006), and provides a means of improving personal support networks which has been shown to reduce the risk of relapse (Panebianco, Gullupe, Carrington, & Colozzi, 2016). To adequately address the complex needs of women with SUDs, treatment must be comprehensive and gender-responsive with a range of services provided by a multidisciplinary team of professionals.

Women-Only Versus Mixed-Gender Programs

Due to the complex needs of women with addictions, it is not surprising that specialized women-only (WO) substance use treatment is thought to improve outcomes when compared to mixed-gender (MG) treatment. Indeed, many studies appear to support this hypothesis. Researchers at the University of California, Los Angeles (UCLA), analyzed data derived from the California Treatment Outcome Project (CalTOP) to assess differences in outcomes between WO and MG programs between 2000 and 2002 (Evans, Li, Pierce, & Hser, 2013). They selected 500 women from each type of program using propensity-matching procedures (e.g. age, pregnancy status, marriage status, years of drug use, physical or sexual abuse, etc.) to reduce differences between the groups. Seven hundred and thirteen women participated in ten year follow-up interviews between 2009 and 2011. The mean age of these subjects was 31.5 years, 56.2% were White, 14.5% were employed full- or part-time, and 39.3% received public assistance. About 20% of the women were married and over 90% had at least one dependent child. Almost half the women received outpatient treatment, 16.5% received narcotic replacement therapy, and 36.5% participated in residential care. At the ten year follow-up interview, almost half the women in both groups (48.4%) had a successful outcome (defined as being alive, having no illicit drug use, and no involvement with the criminal justice system). Most importantly, participation in a WO treatment program increased the odds of a successful outcome by forty-four percent.

A similar study comparing outcomes between WO outpatient treatment and MG outpatient
treatment in California also reported significantly less substance use in the WO treatment group at a one year follow-up (Prendergast, Messina, Hall, & Warda, 2011). To participate in this study, women had to be at least 18 years of age, and must have remained in their outpatient treatment program for at least two weeks. Follow-up interviews were conducted one year following treatment. One hundred and thirty-five participants in the WO programs completed the follow-up interview, as well as 124 participants in the MG programs. Thirty-nine percent of participants were Black, 30% were White, and 22% were Hispanic. The mean age of participants was 36 years, 35% did not receive a high school diploma, and 63% of women were unemployed prior to program admission. The researchers were interested in four outcome variables: substance use, criminal activity, arrests, and employment. At the one year follow-up, women who had participated in WO treatment programs were over two times less likely than women in MG groups to report any substance use in the past thirty days, or to report having engaged in criminal activity in the past 12 months. There was no significant difference between the WO and MG groups in number of arrests or employment status.

In contrast to these studies, a randomized clinical trial that compared outcomes between participants in a community-based WO program, two MG community-based programs, and one MG hospital-based programs found no significant differences between the WO and MG programs. (Kaskutas, Zhang, French, & Witbrodt, 2005). Although this data was collected slightly earlier than the previously mentioned studies (between 1998 and 2000), the setting was similar: Northern California. Women who participated in this study were interviewed at baseline, at the end of treatment, and at 6 and 12 months post-treatment. About half the participants were White and the mean age of participants was forty years. Apart from the MG hospital-based program, slightly more than half the participants did not have a high school diploma. In the MG hospital-based program, 62% had graduated high school or had a higher education. The majority of participants in the four groups were unemployed (71-90%), and slightly less than half the participants had dependent children living with them. These
characteristics do not vary significantly from the women in the previously mentioned studies; however, in this study, no significant outcome differences were found between the WO and MG programs. It is important to note that this study followed only one WO program with 31 participants, which makes it very difficult to generalize the findings.

In a study conducted by Hser, Hunt, Evans, Chang, & Messina (2012), treatment outcomes of 126 Hispanic parenting women (pregnant or having at least one dependent child) who participated in WO programs were compared to the outcomes of 853 Hispanic parenting women who participated in MG programs. Data was derived from CalTOP, a multisite, multicounty, prospective treatment outcome study. The mean age of participants was 31.1, 57.6% had less than a high school education, 17.9% were married, 22.3% were employed, 38.4% received public assistance, almost half the women reported methamphetamine to be their primary substance of use, 73.4% participated in outpatient treatment, 18.3% participated in residential treatment, and 8.3% received Methadone maintenance. To measure treatment outcomes, this study relied on data based on administrative records covering arrests, incarcerations, and mental health services over an 11 year period. Only one significant difference between the WO and MG programs was found: women treated in the WO programs had higher mental health services utilization post-treatment. The researchers concluded that long-term outcomes for WO and MG programs were comparable. However, it is important to recognize that there were some significant differences between the WO and MG treatment groups in this study: the women in the WO programs scored higher for alcohol and drug problem severity; fewer women in the WO programs were employed and more were receiving public assistance compared to the MG group; women in the WO programs had a greater number of prior drug treatments; there were relatively more heroin users in the WO programs and more methamphetamine users in the MG programs; more than a third of women in the WO programs participated in residential treatment and almost a quarter were receiving Methadone treatment while 77.6% of women in the MG programs were attending abstinence-based outpatient
treatment. In light of these significant differences, we can conclude that despite struggling with more severe problems at baseline, treatment outcomes for women who participated in WO programs did not differ significantly from the outcomes of MG programs. Interestingly, this study failed to provide information related to additional drug treatment services utilization in their results despite listing “additional drug treatment services utilization” as an outcome measure in a description of their analytic approach. It was disappointing to find such a critical outcome measure missing from the results. Perhaps there were no significant differences between the groups, but we can only assume this because the data was not provided.

The first formal quantitative synthesis of women's treatment outcomes was conducted by Orwin, Francisco, and Bernichnon in 2001. In a meta-analysis of published and unpublished studies pertaining to the treatment of women with addiction, standard WO program outcomes were compared to MG programs on six domains: alcohol use, drug use, psychiatric symptoms, psychological well-being, criminal behaviour, and attitudes and beliefs. The effect sizes were mostly small, but positive outcomes were indicated for the WO programs in all domains. However, the results of this meta-analysis should be interpreted with caution due to the small number of available and eligible studies.

Qualitative studies of women's experiences in WO and MG programs may help shed some light on outcome differences between these two groups. One such study conducted by Greenfield, Cummings, Kuper, Wigderson, & Koro-Ljungberg (2013) analyzed semi-structured interviews with 28 women who had completed either WO or MG group therapy. Compared to the women in the MG group, women in the WO group reported feeling safer, felt they had their needs met, felt they were supported, reported higher levels of intimacy, had better self-perceptions, and experienced empathy, honesty and comfort. These advantages over MG groups may be responsible for some of the better treatment outcomes we find with WO programs. However, 97.2 % of the participants were White, most were well-educated, and over 80% of these women reported alcohol use as their primary substance.
This sample is not representative of the majority of women with SUDs. Additionally, only 7 of the 28 women interviewed were enrolled in MG groups. The demographics of the participants, and the small sample of participants who participated in a MG group, severely limits the generalizability of the results.

**Strengths and Weaknesses of the Existing Research**

The existing research overwhelmingly indicates that women experience significant treatment barriers, and have unique treatment needs. There is ample, robust research in these areas and little dispute among researchers on these issues. The research is far less conclusive in how to best treat women with addictions. While there are a limited number of studies comparing WO and MG programs, the results are mixed, and the conclusions we can draw are limited. Three of the studies in this paper that compare MG and WO programs were conducted in California (Evans, Li, Pierce, & Hser, 2013; Hser, Hunt, Evans, Chang, & Messina, 2012; Prendergast, Messina, Hall, & Warda, 2011), two studies drew on the same data from CalTOP (Evans, Li, Pierce, & Hser, 2013; Hser, Hunt, Evans, Chang, & Messina, 2012) and two studies had small sample sizes (Greenfield, Cummings, Kuper, Wigderson, & Koro-Ljungberg, 2013; Kaskutas, Zhang, French, & Witbrodt, 2005). With the exception of one study by Prendergast, Messina, Hall, & Warda (2011), all of the studies are evaluating outcomes between WO and MG programs that operated in 2005 or earlier. These programs do not necessarily reflect our current level of understanding of women's treatment needs, and the clinical practice guidelines of the last decade.

Another limitation of the existing research is that these studies comparing the outcome of WO and MG programs did not indicate whether the WO programs had gender-responsive programs or they simply limited their enrollment to women. Gender-responsive programs seek to address the complex issues women face with comprehensive and integrative services. Gender-responsive treatment for women may include additional services such as on-site child care, parenting workshops, treatment of
concurrent disorders, employment skills training, and trauma therapy. Ashley, Marsden, & Brady (2003) reviewed studies of 38 gender-responsive programs and found that these programs improved treatment completion rates, improved length of stay in treatment, decreased use of substances, reduced mental health symptoms, improved birth outcomes, improved self-reported health, improved employment status, and reduced HIV risk. It is important to note that gender-responsive treatment need not be limited to WO programs, and that the benefit of WO programs need not be limited to gender-responsive treatment. As indicated by the qualitative study we reviewed, women in WO programs may express feeling safer, being able to be more honest, and greater levels of intimacy and support (Greenfield, Cummings, Kuper, Wigderson, & Koro-Ljungberg, 2013) regardless of the program type.

As a whole, the research indicates that WO programs have a small positive impact on treatment outcomes; however, without randomized, controlled trials that offer the same gender-responsive or standard programming to comparable groups of women in WO and MG settings, we cannot determine how much of the effect is based on gender-responsive programming, and how much is solely related to the gender of the group.

Recommendations for Future Research

In addition to the need for randomized, controlled trials that compare the effectiveness of WO and MG programs and recognize the difference between standard and gender-responsive programs, there is a need for more research into the effectiveness of various delivery formats for women. There are an increasing number of program delivery formats available to individuals struggling with SUDs including residential treatment, out-patient treatment, outreach programs, internet-delivered treatment programs, supportive telephone calls, video conferencing, aftercare programs and long-term recovery homes. Given that child care issues, transportation issues, inflexible treatment hours, and the need to provide an income for the family are common treatment barriers for women, it stands to reason that outreach programs, internet-delivered treatment programs, supportive telephone calls and video
conferencing may be especially beneficial for women. However, social networks and peer support groups are critical aspects of the recovery process for many women (Gunn & Canada, 2015) and technology-based treatment delivery would severely limit this dimension of the recovery process. Women are also more likely than men to have a partner who abuses alcohol or drugs (Greenfield, Back, Lawson, & Brady, 2010), so although the barriers to residential treatment may be greater for women, it may be more beneficial to invest in overcoming those barriers through the appropriate support services than to provide treatment to women while they remain in an unhealthy home environment. While there is a large body of research comparing outcomes for various treatment delivery formats, more research, including randomized clinical trials, must be conducted to determine the effectiveness of alternative treatment delivery models, and out-patient versus residential treatment outcomes specifically for women.

If research comparing WO and MG programming is limited, research on outcome differences between various theoretical approaches to treating women is almost non-existent. Having come to a greater understanding of the unique needs of women seeking addiction treatment, it is now important that we focus our attention on how to best meet those needs. Understanding the effect of the environment (WO versus MG) is one aspect of knowing how to meet those needs, but we also need to consider theoretical approaches as well. For example, one important theoretical finding is that the traditional confrontational approach to addiction treatment tends to be less effective for women. Women respond better to treatment styles that are supportive, optimistic, and collaborative (Drabble, 1996). However, far more studies must be done to determine if specific therapies (cognitive-behavioural therapy, motivational enhancement therapy, pharmacotherapies, psychotherapy, group therapy, etc.) have advantages over other therapies in the treatment of women with SUDs.

Conclusion and Implications

Since the 1980s, there has been a growing body of knowledge in the etiology, disease
progression, and treatment of addictions in women. Traditionally, treatment for women was based on models developed by and for men, but as researchers and clinicians learned more about sex and gender differences it became apparent that these models were not meeting the needs of women. Although rates of drug and alcohol abuse are still higher for men, the gender gap appears to be closing. Yet, women remain underrepresented in the treatment population. A review of the literature identifies multiple systemic, structural and personal barriers to addiction treatment including fear of stigma, lack of child care, lack of family support, financial hardship, and inadequate identification of SUDs by professionals and poorer referral rates for women. Women are likely to enter treatment with more severe problems than men, to be diagnosed with a concurrent mental health disorder, to have a history of sexual assault, to be in a relationship with a partner who abuses alcohol or drugs, and to be unemployed or underemployed. A greater understanding of the barriers women face, and the physical, emotional, psychosocial and sociopolitical dimensions of addiction in women, has led to the development of gender-responsive and women-only treatment programs that attempt to meet the complex needs of women through comprehensive, integrated, and collaborative efforts. Gender-responsive treatment programming is associated with positive outcomes including improved treatment completion rates, improved length of stay in treatment, and decreased use of substances. Women-only treatment programs also demonstrate some positive outcomes but the results are mixed and the effect sizes are often small. With more research in this area, it may be possible to determine if gender-responsive WO programs have a significant advantage over gender-responsive MG programs. Additional research is also necessary to determine the relative effectiveness of out-patient, residential and alternative (telephone, internet-based) delivery options for women. Such findings could lead to the development of new policies and clinical practice guidelines aimed at providing women with a treatment environment, program delivery models, and theoretical approaches that best meets their needs.
REFERENCES


Hibell, B., Guttormsson, U., Ahlström, S., Balakireva, O., Bjarnason, T., Kokkevi, A., Kraus, L. (2012), The ESPAD report 2011: Substance Use Among Students in 36 European Countries, Swedish Council for Information on Alcohol and Other Drugs (CAN) and Council of Europe.
Pompidou Group.


United Nations Office on Drugs and Crime. (2004). Substance abuse treatment and care for women:

