Norwegian Centre for Addiction Research

UiO : Institute of Clinical Medicine
University of Oslo

Female poly drug abuse and psychopathology – gender differences: An overview

Edle Ravndal

SERAF rapport nr 3/2011

Kirkeveien 166, 0407 OSLO
Tlf: 23 36 89 00, Faks: 23 36 89 86
www.seraf.uio.no

Preface

The background for undertaking this literature review on females and psychopathology is a co-operation with a Belgian research group at the University of Gent in the treatment study *"The evolution of poly drug use and mental health among therapeutic community residents in Belgium: a 15-year comparison"*.

As I have been working with females and substance abuse during the last 30 years, I thought that doing this literature review would be a good opportunity to systematically go through all the new literature in the field. However, and not to my big surprise, the research in the field is still scarce. Some findings are never the less repeated in different studies and at different time periods. But still the studies and methods used are so different that doing a meta-analysis at this point in time would not be possible. Instead I hope that this review will inform the reader with some basic knowledge concerning females and the type and prevalence of the most common psychopathology.

Introduction

In the literature of substance use many different definitions of the substances at use and the degree of dependence are used[1]. Alcohol use, drug use, substance use, poly-substance use, and poly drug use are among the most used terms. As for indication of *degree* of dependence terms like substance/drug use, misuse, abuse, and addiction are most common. However, reading the literature, the use of these terms is not always based on the same definitions, making it quite difficult to compare different studies which apparent are based on more or less similar populations.

The aim of the present literature review is to look at gender differences in psychopathology among poly drug abusers. However, many studies presenting substance use/abuse populations seem to have materials with quite similar drug abuse patterns as studies using the term poly drug abusers. These studies are therefore also included in the review. In addition some studies of female alcohol abuse are included in order to investigate if there are clear cut differences between females using legal substances as alcohol versus females using illegal substances as for example opiates, amphetamines, cannabis etc.

In this literature review I choose to use the term *substance abuse* (which also may include abuse of alcohol) most of the time, since this term seems to be the most often used in the literature at hand.

Undertaking a literature review of gender differences concerning substance abuse and psychopathology, is quite demanding as to methodological problems. Firstly, the prevalence of Axis I and Axis II disorders may vary according to certain *sample characteristics* such as age, setting and primary substance at use. For example, it is well known that non maintenance clients in inpatient settings, as compared to non maintenance clients in outpatient settings, have more severe substance abuse problems and more psychiatric co-morbidity. Therefore it may be assumed that inpatient clients have a higher prevalence of both Axis I and II disorders than outpatients. However, for clients in maintenance treatment this difference in substance abuse history and psychopathology between in- and outpatients is not necessarily there.

Secondly, *diagnostic criteria*, depending on the chosen classification system, the time-frame that is employed when setting diagnosis, and the use of exclusion criteria, may vary a lot.

Finally, *assessment procedures*, may have an effect on the observed prevalence rate. For example some authors argue that self-report instruments overestimate the prevalence of PDs more than interview methods, leading to higher reported prevalence rates (Hunt et al., 1992; Widiger et al., 1987). However, others researchers contend that even if the two methods will diagnose a certain amount of PDs, they will probably identify somewhat

---

[1] Literature search was performed using bases as Medline, Psychlit, Embase and ISI (the National Library on Addictions, Norwegian Institute of Alcohol and Drug Research).

different dimensions of the same underlying disorder because of the different approaches used (Torgersen & Alnæs, 1990, Butler et al., 1991).

In almost all studies, setting, primary substance of use, and assessment methods are reported on. However, information about some of the other factors, like gender, time-frame and the use of exclusion criteria, are provided by far fewer studies.

In fact, most studies on alcohol and drug dependence pay little or no attention to gender differences. In addition co-morbid DSM-IV Axis I and II disorders in substance abusers have mostly been studied in separate samples. There is also limited knowledge about the relationship between gender and personality disorders (PD) in different subtypes of substance abusers (Landheim et al., 2003).

On this background, with all methodological weakness taken into consideration, I will try to present the main characteristics of female substance abusers as to both Axis 1 and Axis II disorders. Sometimes an explicit comparison will be made with male substance abusers, and sometimes not.

However, not only mapping Axis I and II disorders may present different problems among females and males. Women's more basic way of behaving and relating to others, seems also to be of outmost importance when trying to understand their substance abuse problems, and how to help them when presenting themselves in treatment (Beyer & Conahan, 2002). In the same line it is also important to take into consideration that women's biological and genetic reactions to different substances may be quite different as compared to men.

Psychiatric co-morbidity and gender difference

Large-scale, national studies using community samples show some consistent gender differences in overall co-occurrence of psychiatric disorders (Regier et al., 1988; Kessler et al., 1994; Grant et al., 2004). Anxiety and affective disorders are most likely to co-occur in women while substance disorders, conduct disorders, and antisocial personality disorders are the most likely to co-occur in men (Kessler et al., 1997).

Prevalence of psychiatric symptoms among substance abusers in the general population

Data from the National Co-morbidity Survey (NCS), collected in 1994 have been analysed to derive specific gender differences and similarities in psychiatric co-morbidity among the problem-drinking community subgroup. The majority of people in the NCS community sample with an alcohol disorder had at least one psychiatric disorder as well. Further-more, the co-occurrence was stronger among women than in men (Kessler et al, 1997). The lifetime prevalence of alcohol abuse was 6.4 percent among women and 12.5 percent for men. Lifetime alcohol dependence rates were 8.2 percent and 20.1 percent, respectively. Over the course of lifetime, drug dependence co-occurred with alcohol dependence in 34.5 percent of women and 29.5 percent of men. Furthermore, larger

portions of women than men with alcohol abuse or dependence reported prior anxiety disorders, affective disorders, and drug disorders. The presence of prior psychiatric disorders was predictive of alcohol dependence, especially among women. Lifetime co-occurrence was positively associated with the persistence of alcohol dependence in both women and men.

Prevalence of personality disorders among substance abusers in the general population

There are few studies from the general population which show the prevalence of personality disorders (PD). The Epidemiological Catchment Area Study (ECA-study) shows that 14 % of persons with an alcohol disorder had an antisocial PD, while the prevalence was somewhat higher for persons with other substance disorders (18 %). Another population study from the USA indicated that among persons with an alcohol disorder 29 % had at least one PD, compared to 48 % among persons with a drug abuse disorder. Antisocial, histrionic and dependent PD was the most common both among alcohol abusers and drug abusers (Grant et al., 2004).

There exist relatively few studies from the general population which show the prevalence of psychiatric disorders among substance abusers. In general the existing studies show a high prevalence of both psychiatric symptoms and PD among persons with substance abuse, and far higher than among persons without substance abuse. Furthermore, drug abusers have a higher prevalence of psychiatric symptoms and PDs than alcohol abusers. Most studies show that the more serious the substance abuse is, the more serious are the psychiatric disorders. Female substance abusers also have more psychiatric symptoms than males.

In general, persons with the most heavy substance abuse, and most psychiatric disorders are more prone to present for treatment (Berkson's fallacy). Hence, the prevalence of psychiatric co-morbidity is higher in studies of clinical populations than in general population studies.

Prevalence of psychiatric symptoms among substance abusers in treatment

In a review of 16 studies which investigated psychiatric symptoms among alcohol abusers and/or drug abusers in treatment, in eight of the studies gender differences were reported on (Landheim. 2007). The 16 chosen studies were based on well known diagnostic instruments, included 100 persons or more and were cross-checked with two relevant literature reviews (Bradizza et al., 2006; Hintz & Mann, 2005). Most of the studies had investigated life time prevalence of psychiatric symptoms. In six of the studies females had a higher prevalence of psychiatric symptoms than males, but calculating the median value, there was no differences between females and males as to the total prevalence of psychiatric symptoms. In samples with females the prevalence varied between 33-85 % (median: 69 %), while in samples with males the corresponding percentages were 16-84 % (median: 70 %).

However, several separate studies have shown significant differences in psychopathology between women and men who seek help for substance dependency (Brady et al., 1993;

Magura et al., 1998). In Brady et al.'s (1993) descriptive study of 100 inpatient substance abusers, women were significantly more likely to have another current Axis I disorder in addition to substance abuse. The finding is consistent with the Epidemiological Catchment Area (ECA) study of the general population, which found that Axis I diagnoses were twice as prevalent in women (Regier et al., 1988). Women had almost twice the number of current anxiety disorders as men, particular panic disorder (18 percent versus 10 percent) and post-traumatic stress disorders (PTSD) (46 percent versus 24 percent). This is in line with the findings from the BioMed II IPTRP project with a sample of 828 inpatients in 30 different facilities in nine European countries (De Wilde, 2005). These rates are substantially higher than the ECA data of the general population of women. For both women and men, social phobia and PTSD predated the onset of substance dependence in the majority of cases, which would support a self-medication hypothesis.

No significant differences were found in the rates of affective disorders between female and male substance abusers. This also support the findings from the BioMed II IPTRP project (De Wilde, 2005), but are in contrast to the ECA data in which major depression is twice as common in women as in men (Weissman & Klerman, 1977). In addition, the majority of addicted men experienced the onset of depression after the onset of substance abuse, indicating a more substance-induced condition in men. There were more pronounced gender differences within primary alcoholics. Female alcoholics had substantially more anxiety and affective disorders than males, the ratios of which are consistent with the ECA data. Panic disorder was significantly more likely to predate alcoholism in women, supporting the use of alcohol to self-medicate. In contrast, within the primary cocaine dependent group, no significant gender differences in psychopathology were found between genders. Use of cocaine was not found to precipitate depressive episodes that outlasted intoxication and withdrawal, thereby minimizing any gender differences. There were no differences in Axis II diagnoses between genders.

Landheim et al. (2003) show in their study of poly-substance abusers and pure alcoholics, presenting for treatment, that among women poly-substance abusers the prevalence of PTSD is significantly higher than among pure alcoholics (38% vs. 17 %) and that female poly-substance abusers have significantly more PTSD than male poly-substance abusers (38% vs. 21 %).

Magura et al. (1998) studied a sample of 212 methadone patients who were dually addicted to opiates and cocaine. Similar to the findings in the National Comorbidity Survey (Kessler et al., 1994), women addicts were more likely than men to present with concurrent mood and anxiety disorders. Methadone-dependent women with an antisocial PD were likely to continue their opiate abuse and were less likely to have a concurrent alcohol use disorder.

In a study of treatment-seeking opiate abusers, life-time psychiatric comorbidity (in particular, major depression, social phobia, eating disorders) was more than twice as common in women as in men (Brooner et al., 1997).

A high frequency of PTSD among female poly-substance abusers is found in several both clinical and epidemiological studies (Helzer et al., 1987; Cottler et al., 1992; Brady et al., 1998). In a longitudinal, national study in the USA, Kilpatrick et al. (1997) demonstrated that the use of illicit drugs was strongly associated with both sexual and physical assaults in women. In the ECA study, Cottler et al. (1992) found that female gender and the use of cocaine or opiates were the strongest predictors of PTSD. This shows the importance of identifying and focusing on the treatment of PTSD in many female substance abusers.

Patients presenting to detoxification and dual diagnosis inpatient treatment were studied by Westreich et al. (1997). Female more often had an affective disorder, while men more often were admitted with a diagnosis of schizophrenia than women. Women more often also had diagnoses of psychosis, substance-induced hallucinations and borderline PD. Furthermore, the higher percentage of women in detoxification with previous psychiatric treatment seems also to suggest that women were directed to psychiatric services rather than to addiction services. Women also reported being fearful of treatment due to the belief that they could lose their children or there would be inadequate care for the children. The findings of Westreich et al. (1997) replicate the results of an earlier study of dually diagnosed outpatients (Comtois & Ries, 1995), which also found that women more often were diagnosed with affective disorders and men with schizophrenia.

Prevalence of personality disorders (PD) among substance abusers in treatment

There are big differences in the prevalence of PDs among substance abusers in treatment. As mentioned before these variations are mostly due to different characteristics of the samples, use of different diagnostic instruments and use of different time windows in treatment when making the diagnosis. Even if the prevalence rates are very varying in the different studies, in general the average rate is quite high (median: 61%), and most studies show more PDs in samples of drug abusers than among alcohol abusers (Landheim, 2007). There are also very few studies that have examined PD and gender differences.

Verheul et al. (1995) summarized 52 studies which investigated the total prevalence of PD and the prevalence of antisocial and borderline PD among substance abusers in treatment. Twelve of the studies looked at gender differences, but only three studies investigated the prevalence of all PDs. These three studies showed a tendency towards more PDs among women than among men. Altogether more men than women had an antisocial PD (median: 39 % vs. 19 %), while no gender difference was found for borderline PD.

A Norwegian study examined gender differences in the prevalence of symptom disorders and PDs among substance abusers presenting for treatment (n=260) (Landheim et al., 2003). The main findings were that major depression, PTSD and eating disorders were significantly more prevalent in women than in men. Female poly-substance abusers differed significantly from all other substance abusers by suffering more often from major depression, simple phobia, PTSD, and borderline PD. Male poly-substance abusers more often presented antisocial PD and less often Cluster C disorders than all other

substance abusers The conclusion of the study as to PD is that they found rather small gender differences, and that the primary substance of abuse is a more important variable than gender for explaining differences in the prevalence and type of Axis II disorders. By contrast, gender, and not primary substance of abuse, seems to be the most important factor in the prevalence and type of Axis I disorders.

Relational perspectives on gender and treatment

Relational perspective

In the 1970s, the psychological and social development of females began to be studied by progressive feminists like Miller (1976) and Gilligan (1982) and their colleagues at the Stone Center at Wellesley College (www. wellesley.edu/WCW) in the US. Their qualitative research suggested that female development occurs in the context of relationships, with mutually empathic and giving relationships being both a source and a goal of development. This contrasts traditional developmental theories that ignored or pathologized much of women's experiences by studying males and generalizing their experiences to females. According to the female-specific theories, women's focus on relationships is seen as natural and necessary - rather than pathologized as dependence or lack of a sense of self.

According to Miller (1976) women's use of substances is an attempt to repair and reestablish destructive relationships. The substances become a remedy to endure untenable relations, and substance abuse develops through vicious circles where the substances deteriorate the quality of the relationship, which again result in an even bigger intake of substances. Miller (1990) describes this as the "depressive spiral", where dysfunctional relationships provoke feelings of contempt, confusion and exhaustion. Addiction, according to Miller, is the woman's answer to the wish, the need and the loss of taking part in meaningful relationships.

According to Gilligan (1982) the primary task of moral development of girls and women is to achieve a balance between self-nuture and care of others, not separation and autonomy. This balance fosters a heightened awareness and appreciation of self. This feminist view of development gives significant weight to contextual influences from the media and peers, and the significant changes in expectations and negative influences that girls face when they transition into puberty, often increase their vulnerability to drug and alcohol use and mental illness.

Dysfunctional families of origin

It is suggested that female substance abusers are more likely to come from dysfunctional families of origin. There are higher rates of mental illness, alcoholism, drug dependence, and depression in early family life of substance abusing females than in families of substance abusing males (Straussner, 1985). On the other hand, other studies indicate that males have experienced just as much emotional and physical problems in their families of origin as females, but it is more that the meaning of these adverse circumstances is experienced and talked about in a different way among males (Biong & Ravndal, 2007). Most studies show, however, that sexual abuse both in the family of origin, and by other

people in the surroundings of these families, is far more frequent among female substance abusers than among male substance abusers (Gil-Rivas et al., 1997; Melberg et al., 2003). Women typically enter treatment with higher rates of post-traumatic stress disorders, depression and other mental health disorders than males (Gil-Rivas et al., 1997).

Women typically indentify significant life events connected to family issues as precipitating factors to their addiction when entering treatment. Such events may be miscarriage, loss of contact with their children, infidelity, separation, and divorce and the like. It is detrimental to their connection to treatment when women are chastised for blaming their addiction problems on these events. Rather it is important to empathize with the impact of these precipitants in the process of explaining how they contribute in the promotion of the disease process.

Primary motivators for women to enter treatment are physical and emotional concerns as well as family issues, while men are most influenced by job and legal problems (Blume, 1997; Ravndal, 2008).

Partners

Women who lack or who have lost significant relationships are at most risk for substance abuse problems (Ravndal, 1982; Wilsnack et al., 1986). An interesting finding is that women who were living/cohabitated with their partners were more likely to be heavy drinkers than those who were married (Wilsnack et al., 1986). Several explanations may be possible, one being that couples who don't get married, but just live together, are living according more non-traditional values, hence the female drinking pattern may be different. It might also be that cohabitation, in contrast to being married, is an expression of a more emotional difficult relationship, where alcohol consumption helps relieve emotional problems and less satisfying relationships.

More important is the finding, that women's drinking pattern is highly correlated with those of their significant others, and more so for women than for men. This is a finding which is repeated in many studies both in Europe and the US. Research shows that most addicted women begin their use under the influence of a significant male in their lives (Hser et al., 1987; Ravndal, 2008). In contrast, males are more likely to begin using substances in the context of male peer relationships. Addicted women who enter treatment are more likely than addicted men to have an addicted partner, whose use patterns these women parallel (Dahlgren & Willander, 1989; Ravndal, 2008). Women are also more likely to be divorced or separated, and describe their existing relationships as less happy and supportive (Schilit & Gomberg, 1987; Dahlgren & Willander, 1989).

It is also important to recognize that women who present for treatment, experience more blame and opposition from families and friends and report greater conflicts with them than do men (Beckman & Amaro, 1986).

The relational model in addiction treatment

Covington (1999) who is a pioneer in integrating the relational development theory into addiction treatment, has conceptualized the process of addiction and recovery as a spiral.

As the addiction progresses, it constricts the woman's life until she is totally focused on the drugs. The dependence on the substances becomes the primary relationship in the woman's life to the exclusion of self-care and participation in other relationships and activities. Recovery is a process of transformation that allows her to expand her sphere of focus to encompass healthy relationships and other positive activities that promote her self-esteem. Understanding the impact of relationship history has significant implications on the understanding of women's addictive behavior (Ravndal & Vaglum,1994). According to Covington (1999) women may use substances to alter themselves to fit into their available relationships (i.e. manage addiction in a partner, to engage in sex, cope with violence). Imbalances of power or responsibilities can significantly decrease a woman's self-esteem. Substances may provide energy, a sense of power, and relief from confusion, compensating for what the relationship is not providing.

When women in treatment are asked what the substances did for them, they typically are able to state what attracted them to the substances and how it helped them to cope. It is very easy for women to conceptualize their relationship with a substance. In a therapeutic community (TC) in Norway (Veksthuset/Phoenix House, Oslo), the women in the re-entry phase, typically worked a lot with their grief in the process of giving up their favorite drug in special women's groups. Their wordings and reactions were hearth breaking and very similar to saying goodbye for ever to their most beloved boyfriend (Ravndal, 1987-1990)[2]. Because of this strong relationship association, women with coexisting mental disorders need to have the ability to acknowledge the positive things that the substance did for them in order to more fully grieve the need to let go. Focusing solely on the consequences of their drug use may not get at their alliance with the substance. As mentioned earlier in this paper, most addicted women date the onset of their heaviest use to some stressful event. To ignore or discourage them from talking about the meaning of this event, because it would foster self-pity instead of self-responsibility, ignores the contextual factors that are so important to women. Although there is more interest and understanding in the mental health field to acknowledge precipitating events and understanding the meaning of their impact, the psychopharmacological interventions foster the primacy of a medical model, which focuses on the management of symptoms and do not necessarily address contextual variables.

It is interesting that relational theory is supported by the philosophy of twelve-step-based addiction treatment for women, but it also calls for change (Covington, 1999). Twelve-step meetings and the TC model of treatment have always prioritized making connections, and have even elevated the value of relationships by emphasizing their spiritual nature, thus in many ways fostering a feminist approach. However, in an attempt to simplify the process, guidance may be imposed in ways that ignore women's unique problems and issues in early recovery and their need for less hierarchical, more

[2] Written notes from participant observations in women's groups at Veksthuset 1987-1990.

collaborative relationships with treatment providers. Also, women's relationship focus is not always sensitively addressed through traditional treatment addiction approaches.

Another issue is that recovering women who struggle in their attempts to balance care for self with others, are often viewed as being relationship dependent or codependent, when in reality their struggle with priorities is well within the realm of normal for women. Therefore women's focus on relationships can be used to enhance motivation for recovery. Women can be counseled on how they sacrifice too much of themselves in order to mold themselves to fit into relationships with persons who are unwilling or unable to change without pathologizing their relationship desires and commitment (Ravndal, 1982; Ravndal & Vaglum, 1994; Collins, 1993; Favorini, 1995; Lossius, 2008).

Physical and biological gender differences

There are also important physical and biological gender differences which are of great importance in the understanding of female substance abuse and psychopathology. Most often gender, psychopathology, physiology and biology are tied together in intrinsic patterns which have to be understood and dealt with in order to give female substance abusers adequate and professional help. Below follows the most important factors concerning physiology and biology among female substance abusers.

Physical differences
Biological differences in how women metabolize alcohol make it more likely that they will develop physical consequences more rapidly, even with a lower intake. This has primarily been attributed to alcohol being more dilute in the bodies of men who have more water and less fat cells, but lately also to the fact that women having less of the stomach enzyme alcohol dehydrogenase, which begins the metabolism of alcohol (Frezza et al., 1990). Much less alcohol is digested and therefore more of it goes directly to body tissues. Therefore, it is not surprising that women are likely to react more intensely to a given dose of alcohol and that the effects are less predictable (Blume, 1997). Due to women's proportion of fat and less water than men, which increases with age, benzodiazepines and barbiturates have longer half-lives, and marijuana takes longer to clear (Barry, 1986). Altogether the physical effects of alcohol have a more severe course and more rapid onset in women, probably due to the increased chronic concentrations in their systems (Blume, 1997).

"Telescoped development"
For women abusing alcohol, there are fewer years between landmark symptoms and progression to a later stage of illness. This has been termed the "telescoped effect" of the progression of the disease in women (Piazza et al., 1989). Some contend that this syndrome is particularly pronounced for women who are depressed before the onset of their alcohol abuse (Smith & Cloninger, 1981). Analyses of data from the Epidemiological Catchment Area (ECA) nationwide study in the US confirm the rapid development of alcohol dependence in women, but conclude that this rapid accrual of

alcoholic symptoms in women is independent of both psychiatric co-morbidity and the amount of alcohol consumption (Lewis et al., 1996).

Fertility, sex and promiscuity

Alcohol and drugs interfere with women's fertility and can exacerbate gynecological disorders (Blume, 1997). The presence of premenstrual dysphoria has been associated with increased quantity and frequency of alcohol and marijuana use, and women with diagnosable premenstrual syndrome have higher rates of alcohol abuse and dependence (Tobin et al., 1994). Unsafe sex, and associated with trading sex for drugs, or relationships with addicted partners, is related to increases in sexually transmitted diseases. Sexual dysfunction, such as lack of desire, inability to orgasm, and painful intercourse, can cause women to use alcohol or drugs to cope, or these problems may be consequences of addiction. A subjective sense of needing substances in order to perform sexually may lead many newly recovering women to avoid sexual relations, despite research that indicates the quality of sexual relations is likely to improve (Blume, 1997).

Contrary to popular opinion, research indicates that alcohol dependent women are not necessarily more promiscuous under the influence of alcohol. Wilsnack et al., (1986) demonstrate from findings in their representative population studies from the US that 60 percent of female drinkers were likely to experience sexual aggression by someone else who had been drinking. In the research summarized by Blume (1997), 16 percent of alcohol dependent women reported being raped during their drinking history, and more of them were likely to experience violence from their spouses. Stigmatization of female substance abusers has always been there. Despite research dispelling the stereotype of increased promiscuity, substance abusing women typically internalize the shame society and cultural, moralistic norms are placing upon them.

Pregnancy

The impoverished environment often associated with illegal drug use, as well as the stigma associated with such use while pregnant, is another big issues for female substance users. Even if the fetal alcohol syndrome (FAS), connected with too much alcohol use during pregnancy, is by far a much bigger problem in all normal, representative populations than the consequences of heroin addiction to unborn babies (NAS), it is the smaller group of drug abusing women who become pregnant that get by far most negative attention and moralistic condemnation. Research shows that it is the use of the legal drug, alcohol, that is by far the most frequent and direct cause of birth defects such as for example mental retardation, physical abnormalities and neurological impairments. However, for all substance abusing females, the shame of not living up to the expected female values of being the good and caring mother, typically has prevented many addicted women to seek treatment in due time. Unresolved maternal grieving of abortion, or of the effects of addiction on infants, and/or loss of custody are significant treatment issues that can contribute to depression and behavioral management problems in addicted women (Raskin, 1992).

Across all socio-economic groups, addiction has severe effects on maternal-infant bonding that can have lifelong ramifications. The shame, guilt, loss and fear of separation

from their infants that addicted mothers feel can create significant barriers to treatment entry and less than optimal cooperation and compliance within the different treatment systems.

Summary

The literature focusing on female poly drug abuse and psychopathology is scarce, and several methodological problems have to be considered. Different sample characteristics, diagnostic criteria and assessment procedures are main factors which cause problems in drawing final conclusions. The prevalence of Axis I and II disorder also vary a lot between normal population studies and clinical samples/reviews. In general, persons with most heavy substance abuse and more psychiatric disorders are more prone to present for treatment. Hence, the prevalence of psychiatric co-morbidity is higher in studies of clinical populations than in general population studies. In a literature review of different treatment populations, females had a higher prevalence of psychiatric symptoms than males, but calculating the median value, there was no differences between females and males as to the total prevalence of psychiatric symptoms. In samples with females the prevalence varied between 33-85 %, while in samples with males the corresponding percentages were 16-84 %. However, in several other treatment studies of female substance abusers the prevalence of depression, anxiety disorders, post-traumatic stress disorders (PTSD) and eating disorders are significantly higher than among substance abusing males. Very few studies have examined personality disorders (PD) and gender differences among substance abusers. In a literature review there was a tendency towards more PDs among women than among men. Altogether the prevalence of antisocial PD was significantly higher among males than among females, while no gender difference was found for borderline PD.

According to female-specific theories, women’s focus on relationships is seen as natural and necessary - rather than pathologized as dependence or lack of a sense of self. The relational perspective in both understanding female substance abuse and to enhance motivation for recovery is of great importance.

There are also important physical and biological gender differences which are of great importance in the understanding of female substance abuse and psychopathology. Most often gender, psychopathology, physiology and biology are tied together in intrinsic patterns which have to be understood and dealt with in order to give female substance abusers adequate and professional help.

References:

Barry PP (1986). Gender as a factor in treating the elderly. NIDA Research Monograph 65, 65-69.

Beckman L & Amaro H (1986). Personal and social difficulties faced by women and men entering alcoholism treatment. Journal of Studies on Alcohol, 47, 135-145.

Beyer E, Conahan JA (2002). Females with dual diagnoses. Implications for specialized clinical approaches. In: O'Connell D & Beyer E (eds.) Managing the Dually diagnosed Patient. The Haworth Press, Inc., Binghamton, NY, 99-151.

Biong S, Ravndal E (2007). Young men's experiences of living with substance abuse and suicidal behaviour: Between death as an escape from pain and the hope for a life. International Journal of Qualitative Studies on Health and Well-being, 2, 246-259.

Blume SB (1997). Women: Clinical aspects. In: JH Lowinson, P Ruiz, RB Millman & JG Langrod (Eds) Substance abuse: A comprehensive textbook, 3rd edition, Baltimore: Williams & Wilkins, 645-654.

Brady KT, Grice DE, Dustan L & Randall C (1993). Gender difference in substance use disorders. American Journal of Psychiatry, 150, 1707-1711.

Brady KT, Dansky BS, Sonne SC & Saladin MS (1998). Post-traumatic stress disorder and cocaine dependence: Order of onset. American Journal of Addiction, 7, 128-135.

Bradizza CM, Stasiewicz PR & Paas ND (2006). Relapse to alcohol and drug use among individuals diagnosed with co-occurring mental health and substance use disorders: a review. Clinical Psychology Review, 26, 162-178.

Brooner RK, King VL, Kidorf M, Schmidt CV & Bigelow GE (1997). Psychiatric and substance use comorbidity among treatment-seeking substance opioid abusers. Archives of General Psychiatry, 54, 71-80.

Butler SF, Gaulier B & Haller D (1991). Assessment of axis II personality disorders among female substance abusers. Psychological Reports, 68, 1344-1346,

Collins B (1993). Reconstruing codependency using self-in-relation theory: A feminist perspective. Social Work, 38, 470-476.

Comtois KA & Ries RK (1995). Sex differences in dually diagnosed severely mentally ill clients in dual-diagnosis outpatient treatment. American Journal on Addictions, 4, 245-253.

Cottler JB, Compton WMD, Mager D, Spitznagel EL & Janca A (1992). Post-traumatic stress disorders among substance abusers from the general population. American Journal of Psychiatry, 149, 664-670.

Covington S (1999). Helping women recover: A program for treating addiction. New York: Guilford Press.

Dahlgren E & 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 mixed male/female treatment facility. Alcoholism: Clinical and Experimental Research,13, 499-504.

De Wilde J (2005). Gender-specific profile of substance abusing women in therapeutic communities in Europe. Thesis, The Faculty of Psychological and Pedagogical Science, University of Gent, Belgum.

Favorini A (1995). Concept of codependency: Blaming the victim or pathway to recovery? Social Work, 40, 827-830.

Frezza M, DiPadova C, Pozzato G, Terpin M, Baroona E, & Lieber CS (1990). High blood alcohol levelsin women: The role of decreased gastric alcohol dehydrogenase activity and first-pass metabolism. New England Journal of Medicine, 12, 871-878.

Gilligan C (1982). In a different voice. Psychological theory and women's development. Cambridge, MA: Harvard University Press.

Gil-Rivas V, Fiorentine R, Anglin D & Taylor E (1997). Sexual and physical abuse: Do they compromise drug treatment outcomes? Journal of Substance Abuse Treatment, 14, 351-358.

Grant BF, Stinson FS, Dawson DA, Chou SP, Ruan WJ & Pickering RP (2004). Co-occurrence of 12 month alcohol and drug use disorders and personality disorders in the United States: Results from the National Epidemiologic Survey on alcohol and related conditions. Archives of General Psychiatry, 61, 361-368.

Griffin ML, Weiss RI, Mirin SM & Lang U (1989). A comparison of male and female cocaine abusers. Archives of General Psychiatry, 46, 122-126.

Helzer JE, Robins JN & McEvoy L (1987). Post-traumatic stress disorders in the general population : Findings of the epidemiologic catchment area survey. North England Journal of Medicine, 317, 1630-1634.

Hintz T & Mann K (2005). Comorbidity in alcohol use disorders: Focus on mood, anxiety and personality. In: R. Stohler & W. Rössler (eds.), Dual Diagnosis. The evolving conceptual framework: Bibliotheca Psychiatrica No. 172 (pp.65-91). Basel, Krager.

Hser Y, Anglin M & McGlothlin W (1987). Sex differences in addict careers: I. Initiation of use. American Journal of Drug Abuse, 13, 33-57.

Hunt C & Andrews G (1992). Measuring personality disorders: A review of issues and research methods. Archives of General Psychiatry, 149, 1645-1653.

Kessler RC, McGonagle KA, Zhao S, Nelson CB, Hughes M, Eshleman S, Wittchen HU & Kendler KS (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the US. Results of the National Comorbidity Study. Archives of General Psychiatry, 51, 8-19.

Kessler RC, Crum RM, Warner LA, Nelson CB, Schulberg J & Anthony JC (1997). Lifetime co-occurance of DAM-III-R alcohol abuse and dependence with other psychiatric disorders in the National Comorbidity Survey. Archives of General Psychiatry, 54, 313-321.

Kilpatrick DG, Acierno R & Resnick HK (1997). A 2-year longitudinal analysis of the relationships between violent assaults and substance use in women. Journal of Consulting Clinical Psychology, 65, 834-847.

Landheim A (2007). Psychiatric disorders among patients in the substance abuse field: Prevalence and association to the longtime outcome of substance abuse. Doctoral Thesis, Department of Behavioral Sciences in Medicine, Faculty of Medicine, University of Oslo.

Landheim A, Bakken K, Vaglum P (2003). Gender differences in the prevalence of symptom disorders and personality disorders among poly-substance abusers and pure alcoholics. European Addiction Research, 9, 8-17.

Lewis CE, Bucholz KK, Spitznagel E & Shayka JJ (1996). Effects of gender and comorbidity on problem drinking in a community sample. Alcoholism: Clinical and Experimental Research, 20, 466-476.

Lossius K (2008). Kvinner, alkohol og behandling (Women, Alcohol and Treatment). In: Duckert F, Lossius K, Ravndal E, Sandvik B (eds) Women and Alcohol (Kvinner og alkohol), Oslo, Universitetsforlaget, 107-143.

Magura S, Kang SY, Rosenblum A, Handelsman L & Foote J (1998). Gender differences in psychiatric comorbidity among cocaine-using opiate addicts. Journal of Addictive Diseases, 17, 49-61.

Miller JB (1976). Toward a new psychology of of women. Second edition. Beacon Press, Boston, 1976.

Miller JB (1990). Connections, disconnections and violations. Work in progress no. 33. Stone Center, Working Paper Series, Wellesley, MA.

Piazza NJ, Vrbka JL & Yeager RD (1989). Telescoping of alcoholism in women alcoholics. International Journal of Addictions, 24, 19-28.

Raskin VD (1992). Maternal bereavement in the perinatal substance abuser. Journal of Substance Abuse Treatment, 9, 149-152.

Ravndal E (2008). Kvinner og alkohol (Women and Alcohol). In: Duckert F, Lossius K, Ravndal E, Sandvik B (eds). Kvinner og alkohol (Women and Alcohol)
Oslo, Universitetsforlaget, 37-66.

Ravndal E, Vaglum P (1994).Treatment of female addicts: The importance of relationships to parents, partners and peers for the outcome. The International Journal of the Addiction, 29, 115-125.

Ravndal E (1982). Hvordan kvinner selv kan mestre sine alkoholproblemer (How females themselves can cope with their own alcohol problems) Oslo, SIFA-report no. 54, National Institute for Alcohol and Drug Research, Oslo, 1982.

Regier DA, Boyd JH, Burke JD, Rae DS, Myers JK, Kramer M, Robins LN, George LK, Karno M & Locke BZ (1988). One month prevalence of mental disorders in the US. Archives of General Psychiatry, 45, 977-986.

Regier DA, Farmer ME, Rae DS, Locke BZ, Keith SJ, Judd LL et al. (1990). Comorbidity of mental disorders with alcohol and other drug abuse. Results from the The Epidemiological Catchment Area (ECA) Study .Journal of the American Medical Association, 264, 2511-2518.

Schilit R & Gomberg E (1987). Social support structures of women in treatment for alcoholism. Health and Social Work, 12, 187-195.

Smith EM & Cloninger CR (1981). Alcoholic females: Mortality at twelve-year follow-up. Focus on Women, 2, 1-3.

Straussner S (1985). Alcoholism in women: Current knowledge and implications for treatment. Alcoholism Treatment Quaterly, 5, 139-155.

Tobin MB, Schmidt MD, Rubinow DR (1994). Reported alcohol use in women with premenstrual syndrome. American Journal of Psychiatry, 151, 1503-1504.

Torgersen S & Alnæs R (1990). The relationship between the MCMI personality scales and DSM III, axis II. Journal of Personality Assessment, 55, 698-707.

Verheul R, van den Brink W & Hartgers C (1995). Prevalence of personality disorders among alcoholics and drug addicts: an overview. European Addiction Research, 1, 166-177.

Weissman MM & Klerman GL (1977). Sex differences and the epidemiology of depression. Archives of General Psychiatry, 34, 98-111.

Westrich L, Guedj P, Galanter M & Baird D (1997). Differences between men and women in dual-diagnosis treatment. American Journal on Addictions, 6, 311-317.

Widiger TA & Frances A (1987). Interviews and inventories for the measurements of personality disorders among alcoholics admitted to an alcoholism rehabilitation setting. Clinical Psychological Review, 7, 49-75.

Wilsnack SC, Wilsnack RW & Klassen AD (1986). Epidemiological research on women's drinking 1974-84. Women and Alcohol: Health-related issues. NIAAA, Research Monograph no. 16 (Vol. Publication no. ADM 86-1139, Washington DC, Department of Health and Human Services, 1-68.