Women's Issues

CITATION: Dorte H., Morten H., (2009), Women and Substance Use Disorders. In: *Some Issues in Women's Studies, and Other Essays* (A.R. Singh and S.A. Singh eds.), *MSM*, **7**, Jan - Dec 2009, p50-62.

Women and Substance Use Disorders

Dorte Hecksher*, Morten Hesse*

ABSTRACT

Substance use disorders belong to the class of externalizing behaviours that are generally more common among men than women. Those women who do have substance disorders therefore deviate more from the norms of society compared with men, tend to live in an environment characterized by high risk of violence and other forms of abuse, and tend to be survivors of childhood trauma. In terms of seeking treatment, women often have difficulty acknowledging their problems with substance use disorders, and professionals are reluctant to ask women about drug or alcohol use. Even when they do seek treatment, women in many countries face practical and financial barriers to access treatment. For women who do enter treatment, outcomes are generally comparable to outcomes for men, suggesting that facilitating entry into treatment can yield substantial benefits for women with addictions.

Key Words: Barriers to treatment; Development of addiction; Gender; Trauma; Women

Introduction: Gender Difference in Substance Use and Its Problems: What Does It Mean?

It is clear from epidemiological studies and from studies of developmental psychopathology that substance use disorders are in general much more common in men than in women. In a large international survey—the WHO World Mental Health Surveys across several countries—women were less likely to use alcohol, cocaine, tobacco, and cannabis (Degenhardt *et al.*, 2008). Gender differences were

^{*}Aarhus University Centre for Alcohol and Drug Research, Nobelparken bygning 1453, Jens Chr. Skous Vej 3, 8000 Århus C, Denmark.

Address correspondence to: Dorte Hecksher, Centre for Alcohol and Drug Research, University of Aarhus, Nobelparken bygn. 1453, Jens Chr. Skous Vej 3, 8000 Aarhus C, Denmark. Email: dh@crf.au.dk

Received 29 June 2008. Revised 4, 9 July. Accepted with revisions 13 July 2008. Revised further 7, 11 Aug 2008. Final acceptance 13 Aug 2008.

somewhat less pronounced in the United States, Europe, New Zealand, and Israel, compared with South America, Africa, the Middle East, and the People's Republic of China. When combining all countries, and adjusting for covariates, women were between 3 and 5 times less likely to concomitantly use alcohol, cocaine, cannabis, and tobacco. However, the survey also seemed to suggest that the gender gaps for alcohol, cannabis, and cocaine are closing. The fact that the gender gap is different across countries, and is closing with time, suggests that cultural factors are influencing gender differences. In some cultures more than in others, gender roles may prevent the development of problematic substance use, and endorsing traditional gender roles have been shown to protect women from developing alcohol problems (Kubicka and Csemy, 2008). Later in this article, we shall look more into the mechanisms by which female gender roles may be in conflict with substance use.

In developmental psychopathology, it is common to distinguish between externalizing and internalizing psychopathology. Externalizing behaviour problems involve aggressive behaviour, acting out on impulses, and have traditionally been linked with childhood disorders such as attention deficit/hyperactivity disorder, conduct disorder, and oppositional/defiant disorder. Internalizing psychopathology has been linked with anxiety and depression, and with social withdrawal. Lara and colleagues have recently suggested that the distinction between externalizing and internalizing psychopathology is central to understanding the whole field of psychopathology (Lara *et al.*, 2006). Recent research into the nature of alcohol and drug problems has supported the view of addictive disorders as belonging primarily to the externalizing category (Zucker, 2008).

Also, men generally have a lot more externalizing behaviour problems compared with women, whereas women have more internalizing problems, such as depression or anxiety. And a growing body of research suggests that substance use disorders can be considered part of the externalizing behaviour spectrum, as opposed to the internalizing behaviour spectrum (e.g. Kramer *et al.*, 2008).

Internalizing problems such as anxiety, depression, or eating disorders represent ways of turning the pain inward. In most cultures around the world, it is more acceptable for women than for men to be vulnerable, passive, and feeling down.

There are two implications of this robust research finding. The first is fairly obvious: women have fewer direct problems as a result of substance use. Women are less at risk for developing an addiction, and consequently from dying of a substance-related condition. The second is less obvious: once a woman has developed an addiction, she deviates more from the female norm, compared with a man with an addiction. And the consequences of deviating from the

norm may be serious. Even in young children in kindergarten, girls who behave aggressively tend to be rejected more by their peers, compared with boys who act equally aggressively (Coplan *et al.*, 2007).

The expectation that women do not display externalizing behaviour problems has serious implications for women with addiction problems. They encounter images held by society (and often by themselves as well) of the alcoholic or drug-dependent woman as a "fallen woman" incapable of living up to the image of a responsible person/mother (Harrison, 1991; Raeside, 2003). Women with drug and alcohol problems have been described as "stigmatized by society in that they are viewed (and often view themselves) as having deviated from the traditional societal norms expected of women in their suitability as mothers and carers" (Toner *et al.*, 2008, p94). This (self-)image is often accompanied by a feeling of shame and guilt, and the woman who encounters general health services or social services can be reluctant to disclose her alcohol or drug problem because she feel ashamed of her behaviour.

Women whose social relations exist in a drug using subculture face several problems, in part as a result of living in a male-dominated environment. Women with drug problems can cope with their life situation by providing sex in exchange for housing, sustenance, and protection, but often suffer violence from sexual partners and are in a situation where they may have to practice unsafe sex (Pinkham and Malinowska-Sempruch, 2008).

Since women with drug use disorders are likely to experience ongoing traumatization, and since many women with drug use disorders have experienced trauma even in childhood, a large number of women with addiction problems suffer co-morbid post-traumatic stress disorder, or what has been labeled "Disorders of Extreme Stress Not Otherwise Specified" (Hien *et al.*, 2005). This group of disorders is associated with severe problems in self-regulatory behaviour: regulation of affective impulses (e.g., difficulty modulating anger), cognitive processes (e.g., disruptions in attention, memory and consciousness), and relationship to others (e.g., problems with intimacy and trust). All these problems may in turn reinforce the problems in the social environment of the woman with substance use disorders.

Can Gender Be a Potent Factor in Treatment Entry and Its Utilization?

Research on gender and substance use show that women consume less alcohol than men and are, compared to men, less likely to use illicit drugs and, by that, less likely to develop problems related to drugs or alcohol (Wilsnack *et al.*, 2000). However, when women do develop problems with drugs and alcohol, they seem to report greater severity of problems, and these seem to develop

faster than among men. This is also described as the telescoping effect (Piazza et al., 1989). Women do, for example, experience a faster progression of alcoholrelated medical conditions, as well as an earlier onset of adverse consequences of alcohol use, such as brain damage and liver disease (Mann et al., 2005). The study by Piazza et al. showed that women even tend to develop addiction more rapidly than do men, accumulating the same number of symptoms as their male counterparts over a shorter period of time (Piazza et al., 1989). It has been suggested that women on a physiological level are more susceptible to the toxic effects of alcohol and "characterized by a shorter time from the onset of alcohol drinking to entry into alcohol treatment, and by earlier onset of alcoholrelated health and psychosocial complications" (Hernandez-Avila et al., 2004, p265). In this way, the telescoping effect has been suggested to result from a biological vulnerability of women to substances. Later research points out that the occurrence of a telescoping effect in behavioural dependence as pathological gambling might undermine this single way of explaining the differences found between men and women (Zilberman, Tavares & el-Guebaly, 2003).

Prevalence rates of drug and alcohol use disorders in general populations indicate that women, compared to men, tend to underutilize treatment services for alcoholism and substance use (Brady and Ashley, 2005; Greenfield et al., 2007). Women who do receive treatment are even less likely to be treated in specialized programmes (Greenfield et al., 2007; Beckman and Amaro, 1984); some studies show that women tend to prefer seeking counseling or support in general health care systems (Weisner and Schmidt, 1992) or in the mental health sector, whereas men are more likely to enter special substance use services (Mojtabai, 2005). This is a paradox since women seem to profit from addiction treatment either equal to, or better than, men (Greenfield et al., 2007). In studies in which gender differences are found, adult women generally do have better outcomes than men, even when differences in treatment services, type of drug, and social disadvantages at baseline, etc. are taken into account (Hser et al., 2005). Differences in alcohol and drug-related harm, treatment utilization, and outcome apparently vary by gender. And since women are worse off doing drugs or alcohol than men, it is of great importance to get to know more about some of the mechanisms that affect the choices of these women, and by that, to look for possible explanations as to why some of them do not enter treatment.

Obviously, there are several reasons for this, and in search of explanations, we might look into both the characteristics of women with substance (ab-)use (compared to men), and the characteristics of the societies in which these women live as well as the specific services the women encounter.

One way to account for an individual's reluctance to enter treatment could be to ascribe it to denial or lack of intrinsic motivation to change. But a tendency to be reluctant toward entering into treatment might as well mean that the stigmatization of substance use disorders extends to a stigmatization of treatment for substance use disorders (Tucker, 2001, p1512). Along with this last line of thought, the notion of "barriers to treatment" might turn out to be a useful concept. This can be understood as people's reasons "...for not utilizing specialized addictions treatment targeting services or not modifying the target problem behaviour" (Schober and Annis, 1996, p82), and research suggests that women with substance abuse experience specific barriers to treatment (Green, 2006; Fillmore *et al.*, 1997; Beckman and Amaro, 1986). These barriers can both be of intrinsic character—related to the inner state of the person—and of extrinsic character—either related to structural factors such as programmme characteristics or to socio-environmental issues such as interpersonal relationships, or societal attitude about addiction/images of the problem in society (Jessup *et al.*, 2003; Greenfield and Sugarman, 2001; Greenfield *et al.*, 2007; Paltrow, 1998). In what follows, several of these barriers are described in relation to substance abusing women's help seeking behaviour.

Perceptions of the Problem—By the Woman and Surroundings

Some factors that might influence women's help-seeking behaviour can be found in the way they perceive their problems. According to a study by Thom (1987), women can be reluctant to recognize or define their problems as related to alcohol and drugs. In this study, women in alcohol treatment were less likely than men to report their main problem being alcohol, while men were more likely to report that their drinking "lay at the root of other problems" (Thom, 1987, p994). Women are also described as more likely than men to attribute their problems to depression or stress (Weisner and Schmidt, 1992). Unfortunately, there are no later studies found to support these findings. Along with this, it has been pointed out that women are less willing than men to apply for specialized treatment; once they recognize having a problem with addiction, they need help to cope with (Booth and McLaughlin, 2000; Mojtabai, 2005). In addition, Beckman and Amaro (1986) showed that women who have entered alcohol treatment tend to have a more negative attitude and higher degree of negative expectances toward professionals than their male counterparts, and this may all together reinforce women's inclination to conceal their problem of addiction from professionals.

Another potent factor that influences women's help-seeking behaviour is stigma associated with being a woman and an addict. All together, these are elements that affect women's inclination or willingness to seek help and by that initiate change of behaviour.

Professionals' Blindness to Women's Addiction Problems

Structural elements might as well influence the degree to which women

MSM: www.msmonographs.org

enter addiction treatment. Apart from women's own initiative toward entering treatment, one of the initial gateways to substance abuse treatment or counseling is the identification and assessment of the problem by professionals. Here, we come across another gender-sensitive barrier, since this identification of addiction problems may differ by gender in some settings. Professionals such as physicians and social service workers can be reluctant to ask women about their current intake of alcohol and drugs, and consequently women seem less likely to be identified and referred to treatment by these professionals (Grella and Joshi, 1999; Beckman and Amaro, 1986). Such a biased picture of the typical alcoholic (woman) can lead to lack of recognition of addiction, especially if the woman does not resemble the stereotype of an alcoholic (Blume, 1997), and physicians generally seem to be less likely to diagnose women than men with drinking problems (Greenfield and Sugarman, 2001). At the same time, negative expectations or reactions toward drug- or alcohol-using women can prevent professionals from reacting in an emphatic way and result in the "...client closing up and avoiding the sharing of information needed for a thorough assessment" (Wallace, 1991, p30). However, as Raeside (2003) and Jones et al. (2004) point out, formal education and supervision of staff members are some of the tools to improve the quality of services and by that the possibility to identify and assess the problems of these women.

Family and Social Relations—Effect on Seeking Treatment

Apart from structural or treatment-related mechanisms that interfere with the woman's decision to apply for or enter treatment, her own lack of acknowledgment of the problem and/or her firm belief that she can manage her problem of addiction on her own is described as an obstacle to entering treatment (Saunders *et al.*, 2006). This is the case for both men and women, but women with a problematic use of drugs or alcohol seem also to experience that family and friends support this strategy of concealment to protect the woman from outsiders (Finkelstein, 1994). The woman's partner can as well influence her treatment-seeking behaviour. Generally, women with addiction problems are more likely than men (with addiction problems) to have an alcohol or drug-using partner who supports her substance use (Grella and Joshi, 1999; Green, 2006). Compared to women with a male partner not using drugs, this group of women generally experience less support, or even resistance, to enter abstinence-based treatment, and generally they tend to be retained in treatment for a shorter period of time.

Apart from their partners' resistance toward treatment services, women with substance use problems tend to hold stereotypical views of treatment such as treatment being expensive, related to private clinics and time-consuming. They are generally more inclined to perceive treatment as unattractive (Copeland, 1997). Once the woman realizes she has a problem that needs professional help, she needs to find a treatment facility that is affordable, and from which she is

not excluded because of having childrearing responsibilities. Women entering treatment are more concerned about the harshness of treatment than men and imagine problems arising from being in treatment with males (Kline, 1996). Women with substance use problems are more likely than men to experience limited financial resources, and the degree to which treatment is perceived as accessible to women can be affected (Brady and Ashley, 2005; Greenfield et al., 2007). And often women experience that having childrearing responsibilities is a barrier to entering treatment, since not all treatment facilities accept children. or have certain limits when it comes to the number and age of children (Jessup et al., 2003). Having childrearing responsibilities is likely to influence women's treatment-seeking behaviour in other ways too. Women are more inclined than men to feel under threat of losing custody of a child, or to be suffering from a recent loss of custody (Jessup et al., 2003; Thom, 1987). Disruption, or threats of disruption of family relationships (e.g. losing custody of children), can prevent the woman from entering treatment. And women who actually intend to apply for treatment or counseling can experience a range of practical difficulties such as lack of transportation or childcare facilities. In this way, having children or being a parent can be a gender-sensitive barrier to entering treatment (Green, 2006).

Pregnancy and Substance Abuse

Pregnant substance-abusing women face a massive pressure toward entering as well as complying with treatment. These women often experience both a continuous uncertainty of the harm they might have brought upon their unborn child, and a pressure from their social environment to cease their use of alcohol and drugs (Murphy and Rosenbaum, 1999). Since harmful effects of drug and alcohol misuse on the foetus during pregnancy are said to be unequivocal (Ockene et al., 2002) and problematic use of drugs and alcohol can affect the women's childcare abilities (Hans et al., 1999), treatment and health service initiatives are typically directed toward abstinence, reduction or control of drugs taken (e.g. in terms of methadone maintenance treatment) (Day et al., 2003), and early intervention is seen as central for improving health habits and reduce use of drugs and alcohol (Gehshan, 1995). Having said this, it is also evident that there is a lack of unity in research on the harmful effect of drugs and alcohol (see also Table 1). Research has actually shown that it is not possible to prove that small amounts of alcohol are always harmful to the foetus. Despite this health authorities in, for example, Denmark and Great Britain recommend pregnant women to abstain completely from alcohol. Research in the area of drug use and pregnancy and the effect on the foetus will often be confounded by substance using women's generally poor health condition, poor state of nutrition, and polydrug use. At the same time, illegal drugs are seldom pure, but can contain sugar, glass, strychnine etc.

A range of adverse outcomes are associated with maternal substance use. A

Table 1: Commonly used drugs and suspected risks

Drug	Risks Incurred During Pregnancy	Risks Incurred During Infancy and Early Childhood	Risks Incurred Later in Life
Alcohol	Malformation of face and head, malformation of heart and spine, LBW	Withdrawal symptoms, behavioural problems, learning difficulties	Learning difficulties
Cannabis	LBW, possibly because of carbon monoxide from smoke	Heavy smoke during pregnancy associated with fearfulness, poorer motor skills, and shorter length of play	Unknown
Opiates	LBW	Sudden infant death syndrome, withdrawal symptoms, delayed physical and cognitive development	Unknown
Cocaine	Miscarriages, genital anomalies, LBW	Behavioural problems, attention problems, impulsivity	Delay of cognitive development

LBW: low birth weight.

nonexhaustive list of adverse effects of substances cited in the literature is shown in Table 1 (Chiriboga, 2003; Singer *et al.*, 2004; Cunningham *et al.*, 2005). Most of these risks are general, such as low birth weight and miscarriages. Most are strongly influenced by other environmental risk factors, such as use of health services (Marcus *et al.*, 1984).

Compared to women without addiction problems, pregnant drug or alcohol-using women tend to either delay their first contact with health services (Marcenko *et al.*, 1994) or to deliberately avoid the treatment system and health services (Maupin *et al.*, 2004). As described above, women with drug and alcohol problems are generally negatively perceived by their surroundings. This holds especially for pregnant and postpartum women. As Harrison (1991) points out, treatment professionals find it much easier to identify with a vulnerable and "innocent" foetus than with a pregnant woman performing illegal and (self-) destructive acts, such as using drugs and drinking alcohol. In this respect, pregnant woman are perceived as both a threat to the foetus and as deviating from the conventional expectations of their role as a woman and a mother. This holds for some professionals' and staff's attitude toward pregnant substance-using women and is a possible barrier to entering treatment and health services. A negative attitude toward the mother as a caregiver naturally affects the relationship between the mother and staff members, and by that, the chance

to build up a positive relationship for the benefit of the child (Raeside, 2003). Since women are more likely than men to use treatment facilities with childcare possibilities, the primary responsibilities regarding childcare make absence of childcare facilities in treatment a potential barrier especially to pregnant misusing women (Copeland and Hall, 1992). Another forceful barrier is the possibility of losing custody or being penalized by authorities, and this makes some pregnant substance-using women actively avoid treatment and health facilities during pregnancy. In this way, child protection initiatives can at times have a harmful effect upon the mother and the child in terms of being experienced as a potent barrier to entering and complying with treatment (Hecksher and Dahl, 2008). Pregnant women's response to the barriers mentioned can be adaptation or submission, delay in entering treatment, or actively avoiding treatment and health services.

Concluding Remarks

There are a number of individual and treatment service characteristics associated with treatment outcome which also are shown to vary by gender. Treatment outcome may be affected by socioeconomic factors such as employment and education, mental health (e.g. in terms of co-occurring psychiatric disorders), a history of sexual or physical abuse, type of services, and client therapist match (Greenfield *et al.*, 2007). Apart from these characteristics, there are, as shown in this article, elements that affect whether or not women actually enter the treatment service system, elements that are related to the client/individual, to the treatment service system, as well the society in which they are embedded.

If treatment services improve outreach to women with drug use disorders, and lower the cost of treatment for patients, many women with addictive disorders could receive help that would improve their quality of life. In a randomized controlled trial, Morgenstern and colleagues showed that outreach case management was effective for out-of-treatment women with substance use disorders (Morgenstern *et al.*, 2006). Case management services included outreach and assessment, planning, motivational enhancement and treatment engagement, treatment coordination, monitoring, and advocating patients' needs with partners, and finally aftercare follow-up with peer support, and relapse monitoring.

Take Home Message

- Women with addiction are a minority, but face serious problems in their lives
- Such women face several significant barriers to seeking treatment for their problems.
- They can be helped by better outreach.

Conflict of Interest

None declared.

Declaration

We declare this is our original unpublished work, not submitted for publication elsewhere.

References

- Beckman L. J., Amaro H., (1984), Patterns of women's use of alcohol treatment agencies. In: Alcohol Problems in Women. Antecedents, Consequences and Intervention., Vol. (Ed. L. J. Beckman), The Guilford press, New York, p319-348.
- 2. **Beckman L. J., Amaro H., (1986),** Personal and social difficulties faced by women and men entering alcoholism treatment, *Journal of Studies on Alcohol,* **47**, p135-145.
- Blume S. B., (1997), Women and alcohol: Issues in social policy. In: Gender and Alcohol. Individual and Social Perspectives, Vol. (Ed. S. C. Wilsnack), Rutgers Center of Alcohol Studies, New Brunswick, p462-489.
- 4. **Booth B. M., McLaughlin, Y. S., (2000),** Barriers to and need for alcohol services for women in rural populations, *Alcoholism: Clinical and Experimental Research*, **24**, p1267-1275.
- Brady T. M., Ashley O. S., (2005), Women in Substance Abuse Treatment: Results from the Alcohol and Drug Services Study. Substance Abuse and Mental health Services Administration, Office of Applied Studies: Rockville.
- 6. Chiriboga C. A., (2003), Fetal alcohol and drug effects, Neurologist, 9, p267-279.
- 7. **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**, p183-190.
- Copeland J., Hall W., (1992), 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, p1293-1202.
- Coplan R. J., Closson L. M., Arbeau K. A., (2007), Gender differences in the behavioural associates of loneliness and social dissatisfaction in kindergarten, *Journal of Child Psychology* and Psychiatry, 48, p988-995.
- Cunningham F. G., Leveno K. J., Bloom S. L., Hauth J. C., Gilstrap L., Wenstrom K. D. (Eds.) (2005), Williams Obstetrics, McGraw Hill Companies, New York.
- 11. Day E., Porter L., Clarke A., Allen D., Moselhy H., Copello A., (2003), Drug misuse in pregnancy: the impact of a specialist treatment service, *Psychiatric Bulletin*, **27**, p99-101.
- 12. Degenhardt L., Chiu W. T., Sampson N., Kessler R. C., Anthony J. C., Angermeyer M., Bruffaerts R., de Girolamo G., Gureje O., Huang Y., Karam A., Kostyuchenko S., Lepine J. P., Mora M. E., Neumark Y., Ormel J. H., Pinto-Meza A., Posada-Villa J., Stein D. J., Takeshima T., Wells J. E., (2008), Toward a Global View of Alcohol, Tobacco, Cannabis, and Cocaine Use: Findings from the WHO World Mental Health Surveys, PLoS Medicine, 5, p141.
- Fillmore K. M., Golding J. M., Leino E. V., Motoyoshi M., Shoemaker C., Terry H., Ager C. R., Ferrer H. P., (1997), Patterns and trends in women's and men's drinking. In: Gender and alcohol. Individual and social perspectives, Vol. (Ed. S. C. Wilsnack). Rutgers Center of Alcohol Studies: New Brunswick, p21-48.
- 14. **Finkelstein N., (1994),** Treatment issues for alcohol- and drug dependent pregnant and parenting women, *Health & Social Work,* **19,** p7-14.
- 15. **Gehshan S.**, **(1995)**, Missed opportunities for intervening in the lives of pregnant women addicted to alcohol and other drugs, *JAMA*, **50**, p160.
- 16. **Green C. A., (2006),** Gender and use of substance abuse treatment services, *Alcohol Research & Health, 29*, p55-62.

- 17. **Greenfield S. F., Brooks A. J., Gordon S. M., Green C. A., Kropp F., McHugh M. K., Lincoln M., Hien D., Miele G. M., (2007),** Substance abuse treatment entry, retention, and outcome in women: A review of the literature, *Drug and Alcohol Dependence*, **86**, p1-21.
- Greenfield S. F., Sugarman D. E., (2001), The treatment and consequences of alcohol abuse and dependence during pregnancy. In: Management of psychiatric disorders in pregnancy, Vol. (Ed. B. B. Little). Arnold: London, p213-227.
- 19. **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**, p385-406.
- 20. Hans S. L., Bernstein V. J., Henson L. G., (1999), The role of psychopathology in the parenting of drug-dependent women, *Development and Psychopathology*, 11, p957-977.
- 21. **Harrison M., (1991),** Drug addiction in pregnancy: The interface of science, emotion and social policy, *Journal of Substance Abuse Treatment,* **8**, p261-268.
- 22. **Hecksher D., Dahl H.V., (2009),** Pregnant drug users experienced barriers to treatment, *Substance Use and Misuse* (in press).
- 23. **Hernandez-Avila C. A., Rounsaville B. J., Kranzler H. R., (2004),** Opioid-, cannabis- and alcohol-dependent women show more rapid progression to substance abuse treatment, *Drug and Alcohol Dependence*, **74**, p265-272.
- 24. **Hien D., Cohen L., Campbell A., (2005),** Is traumatic stress a vulnerability factor for women with substance use disorders? *Clinical Psychology Review*, **25**, p813-823.
- 25. **Hser Y., Evans E., Huang Y. T., (2005),** Treatment outcomes among women and men methamphetamine abusers in California, *Journal of Substance Abuse Treatment*, **28**, p77-85.
- 26. **Jessup M. A., Humphreys J. C., Brindis C. D., Lee K. A., (2003),** Extrinsic barriers to substance abuse treatment among pregnant drug dependent women, *Journal of Drug Issues, 2*, p285-304.
- 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, *The American Journal of Addiction*, **13**, p342-357.
- 28. **Kline A., (1996),** Pathways into drug user treatment: the influence of gender and racial/ethnic identity, *Substance Use & Misuse*, **31**, p323-342.
- 29. **Kramer M. D., Krueger R. F., Hicks B. M., (2008)**, The role of internalizing and externalizing liability factors in accounting for gender differences in the prevalence of common psychopathological syndromes, *Psychological Medicine*, **38**, p51-61.
- Kubicka L., Csemy L., (2008), Women's gender role orientation predicts their drinking patterns: A follow-up study of Czech women, Addiction, 103, p929-937; discussion 938-939.
- 31. **Lara D. R., Pinto O., Akiskal K., Akiskal H. S., (2006)**, Toward an integrative model of the spectrum of mood, behavioural and personality disorders based on fear and anger traits. I. Clinical implications, *Journal of Affective Disorder*, **94**, p67-87.
- 32. Mann K., Ackermann K., Croissant B., Mundle G., Nakovics H., Diehl A., (2005), Neuroimaging of gender differences in alcohol dependence: Are women more vulnerable? *Alcoholism, Clinical and Experimental Research*, 29, p896-901.
- 33. Marcenko M. O., Spence M., Rohweder C., (1994), Psychological characteristics of pregnant women with and without a history of substance abuse, *Health & Social Work*, 19, p17-22.
- 34. Marcus J., Hans S. L., Patterson C. B., Morris A. J., (1984), A longitudinal study of offspring born to methadone-maintained women. I. Design, methodology, and description of women's resources for functioning, American Journal of Drug and Alcohol Abuse, 10, p135-160.
- 35. Maupin R., Lyman R., Fastis J., Prystowski E., Nguyen A., Wright C., Kissinger P., Miller J., (2004), Characteristics of women who deliver with no prenatal care, *The Journal of Maternal-Fetal and Neonatal Medicine*, **16**, p45-50.
- 36. **Mojtabai R., (2005)**, Use of speciality substance and mental health services in adults with substance use disorders in the community, *Drug and Alcohol Dependence*, **78**, p345-354.
- Morgenstern J., Blanchard K. A., McCrady B. S., McVeigh K. H., Morgan T. J., Pandina, R. J., (2006), Effectiveness of intensive case management for substance-dependent women receiving temporary assistance for needy families, American Journal of Public Health, 96,

- p2016-2023.
- 38. Murphy S., Rosenbaum M., (1999), Pregnant Women on Drugs. Combating Stereotypes and Stigma. Rutgers University Press: New Brunswick.
- Ockene J. K., Yunsheng M., Zapka J. G., Pbert L. A., Goins K. V., Stoddard A. M., (2002), Spontaneous cessation of smoking and alcohol use among low-income pregnant women, American Journal of Preventive Medicine, 23, p150-159.
- 40. **Paltrow L. M., (1998),** Punishing women for their behaviour during pregnancy: An approach that undermines the health of women and children. In: *Drug addiction research and the health of women*, Vol. (Ed. A. B.Roman), U.S. Department of Health and Human Services, National Institutes of Health, NIDA: Rockville, p467-501.
- Piazza N. J., Vrbka J. L., Yeager R. D., (1989), Telescoping of alcoholism in women alcoholics, The International Journal of the Addictions, 24, p19-28.
- Pinkham S., Malinowska-Sempruch K., (2008), Women, harm reduction and HIV, Reproductive Health Matters, 16, p168-181.
- 43. **Raeside L.**, (2003), Attitudes of staff towards mothers affected by substance abuse, *British Journal of Nursing*, 12, p13-26
- 44. Saunders S. M., Zygowicz K. M., D'Angelo B. R., (2006), Person-related and treatment-related barriers to alcohol treatment, *Journal of Substance Abuse Treatment*, 30, p261-270.
- 45. Schober R., Annis H. M., (1996), Barriers to help-seeking for change in drinking: A gender-focused review of the literature, *Addictive Behaviours*, 21, p81-92.
- 46. **Singer L. T., Minnes S., Short E., (2004),** Cognitive outcomes of preschool children with prenatal cocaine exposure, *JAMA*, **292**, p1021-1024.
- 47. **Thom B., (1987),** Sex-differences in help-seeking for alcohol problems—2: Entry into treatment, *British Journal of Addiction*, **82**, p989-997.
- 48. **Toner P., Hardy E., Mistral, W., (2008),** A specialized maternity drug service: examples of good practice, *Drugs: Education, Prevention and Policy,* **15**, p93-105
- 49. **Tucker J. A., (2001),** Resolving problems associated with alcohol and drug misuse: Understanding relations between addictive behaviour change and the use of services, *Substance Use & Misuse,* **36**, p1501-1518.
- 50. **Wallace B. C., (1991),** Chemical dependency treatment for the pregnant crack addict: Beyond the criminal-sanctions perspective, *Psychology of Addictive Behaviours*, **5**, p23-35.
- Weisner C., Schmidt L., (1992), Gender disparities in treatment for alcohol problems, JAMA, 268, p1872-1876.
- 52. **Wilsnack R. W., Vogeltanz N. D., Wilsnack S. C., Harris T. R., (2000),** Gender differences in alcohol consumption and adverse drinking consequences: Cross-cultural patterns, *Addiction*, **95**, p2.
- 53. **Zilberman M. L., Tavares H., el-Guebaly N., (2003)**, Gender similarities and differences: The prevalence and course of alcohol- and other substance-related disorders, *Journal of Addictive Diseases*, **22**, p61-74.
- 54. **Zucker R. A.**, **(2008)**, Anticipating problem alcohol use developmentally from childhood into middle adulthood: What have we learned? *Addiction*, **103** (Suppl. 1), p100-108.

Questions That This Paper Raises

- Why do men use more substances than women? And what does it mean for the women who use substances?
- How should we balance the need to communicate the harms associated with substance use during pregnancy against the importance of keeping substance using pregnant women in contact with services?

MSM: www.msmonographs.org

 If women catch up with men on substance use – and women develop substance dependence more quickly than men, and suffer more serious physical consequences of substance use – will the negative impact of substance use on women's health and functioning surpass that of its impact on men?

About the Author



Dorte Hecksher, MSc (Psychology), PhD, is Assistant Professor at the Centre for Alcohol and Drug Research, University of Aarhus, Denmark. She received her PhD in 2004 from the University of Aarhus, Denmark. Her postdoctoral studies have primarily focused on women, substance use and treatment, with a special interest in pregnant substance-using women and barriers to treatment.

About the Author



Morten Hesse, PhD, is Assistant Professor at the Centre for Alcohol and Drug Research, University of Aarhus, Denmark. He received his PhD in 2007 from the University of Copenhagen, Denmark. His research has focused on psychiatric co-morbidity of substance use disorders.

MSM: www.msmonographs.org