Editorial

Substance Abuse in Women: critical clinical issues

Avinash De Sousa

Consultant Psychiatrist and Founder Trustee, Desousa Foundation, Mumbai.
Corresponding author – Avinash De Sousa
E-mail – avinashdes888@gmail.com

Substance abuse in women is a complex issue with unique challenges and considerations. Both biological and psychosocial factors can contribute to substance abuse, and addressing these factors is crucial for effective prevention and treatment. Reasons for gender differences in drug abuse are not yet clear but could have important implications for the development of substance abuse treatment interventions and programs. The recent prevalence rates indicate that the number of female drug abusers is increasing, and the number of clinical studies in which sex and gender differences in drug abuse are investigated is steadily increasing [1].

Demographics and Clinical characteristics

Several demographic and clinical factors that differentiate women from men with regard to substance use have been identified. Women are more likely than men to come from families where one or more members are also addicted to drugs or alcohol, attribute the cause of substance abuse to genetic predisposition, family history, or environmental stress, and attribute their drinking to a traumatic event or stressor [2]. Additional research indicates that women who are addicted have a history of over responsibility in their families of origin and reportedly have experienced more disruption in their families than their male counterparts. Women are also more likely than men to be in relationships with drug-abusing partners or spouses who are drug abusers and to identify relationship problems as a cause for their substance abuse [3]. In addition to interpersonal stressors, women are more likely to experience affective disorders, whereas men who are addicted are more likely to engage in sociopathic or criminal behaviour. Although many women support their habits through prostitution or petty larceny, men are more likely to rely on robbery, con games, and burglary to support their substance abuse. Several differences between older male and female alcohol abusers have been reported. Women are likely than men to be widowed or divorced, to have had a problem drinking spouse, to have experienced depression, and to report more negative effects of alcohol [4]. Older women have later onset of alcohol problems, more vulnerability to addiction stigma, greater use of prescribed psychoactive medications, and are more likely to abuse multiple substances. Women are more likely to combine their prescription drug abuse with marijuana, cocaine, or other drugs. Investigators also find that women may view substance abuse more negatively and that the social stigma attached to the substance dependence may act as a deterrent for women, leading them to obtaining their drugs from legitimate sources such as physicians [5]. These factors may have implications for understanding the effects of gender and widowhood on the development of late onset problem drinking. It is well documented that women face greater medical exposure to psychotropic drugs than men, but little research examines whether women also have increased use of prescription drugs with abuse potential.

Data about women's abuse of or dependence on prescription medications are virtually non-existent. This is significant considering that women, particularly midlife and older women, are the largest consumers of prescription painkillers, antidepressants, and benzodiazepines. Clinical evidence reported in the literature suggests that prescription drugs, especially benzodiazepines, sedatives, and hypnotics, are frequently prescribed for and abused by older women. Older women are prescribed benzodiazepines more than any other age group. Age-related changes in drug metabolism, interactions with other prescriptions, and over-the-counter drugs and alcohol contribute to greater risks for cognitive impairment, dementia, and falls [6].

Women incarcerated for drug-related offenses represent one of the fastest growing populations in jails and prisons. Statistics reported that they committed their offenses under the influence of drugs or alcohol [7].

Biological Differences

Research suggests that men and women differ in their biological and subjective responses to abused drugs. Women initiate cocaine use sooner, take less time to become addicted to cocaine, and report less euphoria and dysphoria compared to men. Women and men given equal doses of cocaine experience the same cardiovascular response despite the fact that blood concentrations of cocaine did not rise as high in women as in men. In studies involving long-term cocaine users, women and men showed similar impairment in tests of concentration, memory, and academic achievement following sustained abstinence, even though women in the study had substantially greater exposure to cocaine [8]. Women cocaine users also were less likely than men to exhibit abnormalities of blood flow in the brain's frontal lobes. These findings suggest a sex-related mechanism that may protect women from some of the damage cocaine inflicts on the brain [9]. Biological indicators point toward clear differences between men and women in the metabolism and other physiological effects of alcohol. Women become intoxicated after drinking smaller quantities of alcohol than men and achieve higher blood alcohol concentrations. Retrospective reports from alcoholics reveal that women consume lesser amounts and are less likely than men to drink daily or to engage in binge patterns of alcohol use. This may be related to the fact that women have less total body water than men of comparable size, meaning that they achieve higher blood alcohol concentrations than men after drinking equivalent amounts of alcohol [10]. Important gender differences also exist in the physiologic effects of nicotine.

Women and men are equally likely to become addicted to nicotine, yet women typically smoke cigarettes with lower nicotine content than those smoked by men, smoke fewer cigarettes per day, and inhale less deeply than men. Females report positive mood increases to a greater extent after nicotine smoking and show a great decline in positive mood during smoking abstinence that men [11]. Research is beginning to show that the progression, or developmental stages, of drug involvement is not identical for men and women. In the progression from legal drug use to illicit drug use, for example, cigarette smoking plays a relatively larger role for women than for men, and alcohol use plays a relatively larger role for men than for women. Studies of self-quitters find that women are less likely to quit initially or to remain abstinent at follow-up. Possible explanations for this sex difference have been suggested, such as women's greater concern about weight gain, greater difficulty with negative mood (and higher prevalence of affective disorders), greater need for social support to quit smoking, and the effects of cigarette advertising targeted at women [12].

The progression to dependence, particularly alcohol-use disorder, also seems to be different for women than for men. The interval between the age of first drinking and treatment-seeking tends to be shorter for women than for men. In addition, women progress between landmarks associated with the developmental course of alcoholism (e.g., regular drinking or loss of control) sooner than men. These findings have led to the theory that "telescoping" may occur in women. This theory posits that there may be a shorter timeframe for the development of medical consequences and behavioural and psychological factors characteristic of an alcohol dependence disorder. With regard to initiation into illicit drugs, data suggest that women are more likely to begin or maintain cocaine use to develop more intimate relationships, while men are more likely to use the drug with male friends and in relation to the drug trade [13].

Medical problems in female substance abusers

Women who abuse drugs have been found to get sicker more quickly and suffer higher rates of liver problems, hypertension, anaemia, and gastrointestinal disorders than male drug users. Women also experience gender-specific medical problems as a result of their addiction, such as a higher risk for infertility, vaginal infections, repeat miscarriages, and premature delivery [14]. Despite lower levels of alcohol intake and shorter periods of drinking, women suffer more severe medial consequences than men, including liver cirrhosis. Postmenopausal women who drink moderate to heavy amounts of alcohol also have other health problems, including breast cancer. They are at higher risk for breast cancer and heart disease even if the amount they drink is less than that of their male counterparts. Women who chronically

abuse alcohol have death rates 50% to 100% higher than men who have the same alcohol use patterns. Some research suggests that the impact of a given amount of smoking on lung cancer risk may be greater among women than men, and that exposure to environmental tobacco smoke may be associated with increased risk for breast cancer [15]. Particularly alarming is that women may be at even greater risk than men for smoking-related diseases, including lung cancer and myocardial infarction. Men have higher prevalence rates of chronic obstructive pulmonary disease than women, which has been attributed to the historically higher rates of cigarette smoking in men.

The interplay of gender-specific drug use patterns and sex-related risk behaviours creates an environment in which women are more vulnerable than men to infection with the human immunodeficiency virus (HIV). Women using intravenous drugs are at higher risk than men for acquiring HIV. Women are more likely than men to inject drugs, use drugs with many partners, share paraphernalia with an injection partner, exchange sex for money or drugs, and have difficulty negotiating condom use with their sex partners [16].

Psychiatric problems in female substance abusers

It is well established that women with substance abuse disorders present for treatment with significant psychiatric co-morbidity. Women show higher rates of certain co-occurring psychiatric disorders compared to men, such as major depression, social phobia, post-traumatic stress disorders and eating disorders. Gender differences in depression are generally thought to be related to the interaction of biological and psychosocial factors. Higher rates of depression occur among women who are poor, less educated, welfare-dependent, and unemployed. Gender differences in the relationships between depressive symptoms and drinking behaviour have been reported in problem drinkers, indicating that depression can play a dual role, at least for women. More specifically, if men and women are motivated to stop drinking, depression can trigger a change in the beginning of treatment of both genders [17].

Studies of comorbid psychiatric disorders in opiate and cocaine abusers have shown higher percentages of affective and anxiety disorders in women than in men. In a recent study of treatment-seeking opiate abusers, lifetime psychiatric comorbidity was more than twice as common in women compared with men [18]. Women dependent on methamphetamine are more likely to report depression, suicidal ideation, and a need for psychiatric assistance than men. Increased risk for depressive symptoms was observed for both women and men reporting methamphetamine dependence compared to those not reporting dependence [19]. Another area of particular importance for women is substance abuse and victimization and violence. A growing body of evidence suggests that interpersonal stress and relationship conflicts are major triggers for relapse among women in drug treatment and that intimate partner violence may result in continued drug use and relapse. With the aging of the drug using population, a majority of women in substance abuse treatment are perimenopausal or menopausal. Risk factors for a more complicated menopausal transition (e.g., alcohol, smoking and illicit substance use, medical comorbidities, HIV/AIDS and hepatitis, premorbid and current psychological distress, few social and economic resources, and negative life events) are fairly widespread in substance abusing women [20].

Treatment issues

Women are underrepresented in substance abuse treatment programs. In the admissions to substance abuse treatment programs were women, but the ratio of women to men with dependence on illicit drugs is larger. Research indicates that women seek treatment for substance abuse less often than men. The low rates of substance abuse treatment entry among women may reflect the specific barriers they face. Barriers for young women that have been documented in the past two decades include pregnancy, lack of services for pregnant women, fear of losing custody when the baby is born, or fear of prosecution, voyeurism, and sexual harassment [21]. Women seeking treatment have been found to have more substance-related problems, and those problems tend to be more severe than those of men entering treatment. For instance, women are more likely to encounter difficulty with transportation to treatment sites, inadequate health insurance, poverty, dealing with a relationship with a drug-abusing partner, and being less likely than their male counterparts to have someone actively supporting them in treatment. Treatment entry for men seems to be facilitated by social institutions such as employers or the criminal justice system, whereas for women

treatment entry more often results from social work referral, suggesting that contact with social agencies eases women's entry into treatment [22].

It's important to approach substance abuse in women with a holistic perspective, considering both biological and psychosocial factors. Tailored interventions and support systems can contribute to more effective prevention and treatment outcomes.

REFERENCES

1. Greenfield SF, Back SE, Lawson K, Brady KT. Substance abuse in women. Psychiatr Clin 2010;33(2):339-55.
2. Westermeyer J, Boedicker AE. Course, severity, and treatment of substance abuse among women versus men. Am J Drug Alcohol Abuse 2000;26(4):523-35.
3. Rivaux SL, Sohn S, Armour MP, Bell H. Women's early recovery: Managing the dilemma of substance abuse and intimate partner relationships. J Drug Issues 2008;38(4):957-79.
4. McCollum EE, Nelson TS, Lewis RA, Trepper TS. Partner relationship quality and drug use as predictors of women's substance abuse treatment outcome. Am J Drug Alcohol Abuse 2005;31(1):111-27.
5. McHugh RK, Nielsen S, Weiss RD. Prescription drug abuse: from epidemiology to public policy. J Subst Abuse Treat 2015;48(1):1-7.
6. Peteet B, Mosley C, Miller-Roenigk B, McCuistian C. Transnational trends in prescription drug misuse among women: A systematic review. Int J Drug Policy 2019;63:56-73.
7. Fazel S, Bains P, Doll H. Substance abuse and dependence in prisoners: a systematic review. Addiction 2006;101(2):181-91.
8. Najavits LM, Lester KM. Gender differences in cocaine dependence. Drug Alcohol Depend 2008;97(1-2):190-4.
9. Kennedy AP, Epstein DH, Phillips KA, Preston KL. Sex differences in cocaine/heroin users: drug-use triggers and craving in daily life. Drug Alcohol Depend 2013;132(1-2):29-37.
10. Bratberg GH, C Wilsnack S, Wilsnack R, Håvås Haugland S, Krokstad S, Sund ER, Bjørngaard JH. Gender differences and gender convergence in alcohol use over the past three decades (1984–2008), The HUNT Study, Norway. BMC Pub Health 2016;16:1-2.
11. Allen AM, Scheuermann TS, Nollen N, Hatsukami D, Ahluwalia JS. Gender differences in smoking behavior and dependence motives among daily and nondaily smokers. Nicotine Tobacco Res 2016;18(6):1408-13.
12. Smith PH, Bessette AJ, Weinberger AH, Sheffer CE, McKee SA. Sex/gender differences in smoking cessation: a review. Prev Med 2016;92:135-40.
13. McHugh RK, Votaw VR, Sugarman DE, Greenfield SF. Sex and gender differences in substance use disorders. Clin Psychol Rev 2018;66:12-23.
14. Wurcel AG, Merchant EA, Clark RP, Stone DR. Emerging and underrecognized complications of illicit drug use. Clin Infect Dis 2015;61(12):1840-9.
15. Lal R, Deb KS, Kedia S. Substance use in women: Current status and future directions. Indian J Psychiatry 2015;57(Suppl 2):S275-80.
16. Wolfe D, Carrieri MP, Shepard D. Treatment and care for injecting drug users with HIV infection: a review of barriers and ways forward. Lancet 2010;376(9738):355-66.
17. Xie J, Fang P, Zhang Z, Luo R, Dai B. Behavioral inhibition/activation systems and depression among females with substance use disorder: the mediating role of intolerance of uncertainty and anhedonia. Front Psychiatry 2021;12:644882.
18. Vorspan F, Mehtelli W, Dupuy G, Bloch V, Lépine JP. Anxiety and substance use disorders: co-occurrence and clinical issues. Curr Psychiatry Rep 2015;17:1-7.
19. Hellem TL, Lundberg KJ, Renshaw PF. A review of treatment options for co-occurring methamphetamine use disorders and depression. J Addiction Nurs 2015;26(1):14.
20. Illangasekare S, Burke J, Chander G, Gielen A. The syndemic effects of intimate partner violence, HIV/AIDS, and substance abuse on depression among low-income urban women. J Urban Health 2013;90:934-47.
21. Srivastava M, Mehndi A, Patel A. Factors related to female substance abuse: A hospital-based study from a tertiary care de-addiction center in India. Telangana J Psychiatry 2015;40:96-4.
22. Stringer KL, Baker EH. Stigma as a barrier to substance abuse treatment among those with unmet need: an analysis of parenthood and marital status. J Family Issues 2018;39(1):3-27.

****

Acknowledgements – Nil
Source of Funding – Nil
Conflict of Interest – Nil