Substance use disorder in Women

Pratima Murthy, Prabhat Chand

Summary

Substance abuse in women is a growing concern in India. While traditional surveys have been unable to provide insights into this hidden problem, recent studies of special population and qualitative research suggests that alcohol, tobacco, opiates and sedatives are drugs that are commonly abused by women from diverse backgrounds. Patterns of use across the country vary.However, some common themes appear to be an early onset, use in the context of a heterosexual relationship, greater emotional problems and poor social support. Women are more vulnerable to the adverse physical consequences of substance use. The environment plays a significant role in development of substance abuse in addition to genetic vulnerability. There are specific issues with regard to treatment of substance use in women, which include delay in recognition of the problem, associated stigma, lack of support systems for treatment and follow-up and other social and psychological issues.

Introduction

Substance abuse has traditionally been considered a disease of men. Women were believed to have some kind of immunity in terms of "social inoculation". However it is now being seen that women are also susceptible to substance use and related problems. Historically, the understanding of substance use is based on male consumption patterns. Though earlier believed that these patterns are equally applicable to women, recent research has shown important gender differences in biology, epidemiology, socio-cultural factors and psychological comorbidity.

In many developing countries substance abuse is no longer an exclusive or predominantly male activity. However there is hardly any information on substance abuse among women from developing countries.

Epidemiology

Epidemiological surveys from the United States show one-month prevalence rates of alcohol use disorders in men as being five times more common than in women. The prevalence of alcohol dependence was twice in men as compared to women. The rates of tobacco dependence are almost the same in both groups (men: 31%, women: 27%). Evidence from U.K, Australia and Switzerland point towards increasing substance abuse in women.

In India, traditional use of various substances by women during religious festivals is not unknown. Chewing tobacco is a common practice among many women across the country. Cultural use of alcohol has been known in some tribal populations. National multi-centered studies in early 80's reported negligible drug use rates among women. The findings in the 1990s also indicated that drug abuse was a predominantly male phenomenon and that 92 to 94 percent of women had never used drugs in their lifetime.

The low numbers of women substance users in traditional surveys is probably reflective of the unsuitability of existing epidemiological

surveys in identifying substance use among women. However, recent data from treatment centers shows that 1 to 3 percent of treatment seekers are female. Therefore, more recent studies have shifted from traditional surveys to studies of specific groups of women with respect to their substance use. A study carried out in 2002 in three cities i.e. Delhi, Mumbai and Aizwal examined substance abuse patterns in women, characteristics of women users and gender issues in treatment. The predominant drugs of abuse were heroin, propoxyphene, alcohol and minor tranquilizers. Injecting drug use was reported especially from Mumbai and Aizawl. About half the women substance users were between twenty to thirty years and majority were employed. Engaging in unsafe sexual practice was observed among many substance abusing women.

In a rapid assessment study of 4648 substance users in the community, it was possible to identify 371 women substance users (7.9%), which may suggest that substance use among women is becoming more visible. The trends from this study appear to suggest that substance use occurs more commonly in single, educated women. Currently, women appear to have an early onset of substance use, have high level of substance use in families and also have an early initiation into sexual activity. In comparison to male coun- terparts, there appear to be increasing numbers of single, better-educated women initiating sub- stance use in urban areas.

Studies from western countries show that men smokers are twice that of women smokers. Although smoking among women is not common in our culture, chewing of tobacco is quite high. Among 39,840 women in Mumbai, 58% were chewing tobacco. In rural Karnataka, 7-9% of 467 women reported chewing tobacco. In a survey of 500 pregnant women, 33% reported tobacco use, mainly as tooth powder.

Etiology

Genetic factors

Twin and adoption studies in males have suggested the robust association of genetic factors in the cause of alcoholism. In female alcohol abusers there is evidence that inherited factors are strongly influenced by the environment. One recent study from Australia involving 2000 female twin pairs have showed the risk of genetic factors for drinking falling from 60 to 40 percent following marriage or cohabitation. Across all studies, one of the most important factors influencing drinking in women was found to be alcohol use or abuse by spouse. Studies from India also suggest that a large number of women alcohol dependents started drinking to keep their spouses company. These evidences imply the important role of environmental influences in association with genetic factors in development of alcohol abuse in females

Studies on genetic markers showed that compared to non-alcoholic women without first-degree relatives suffering from alcohol dependence, those with first-degree relatives suffering from alcohol dependence showed fewer errors for the same Blood alcohol level.

Psychological factors

The few studies examining psychological predictors of alcohol use in women all emphasize the strong association of co-morbid psychological factors in this group in comparison with males. Low self esteem and impaired ability to cope at the high school level in girls was found to predispose to future problem drinking in an Australian study. Childhood sexual abuse increased the risk for both substance abuse and dependence in women. There is a significant association between substance use and major depression in women, with studies suggesting an odds ratio for developing alcohol abuse or dependence of 4.10 for depressed female com- pared to 2.67 for a male with major depres-

sion. Studies from India report association of depression (62.7%) and anxiety (53.3%) in the women using substances.

Sociocultural factors

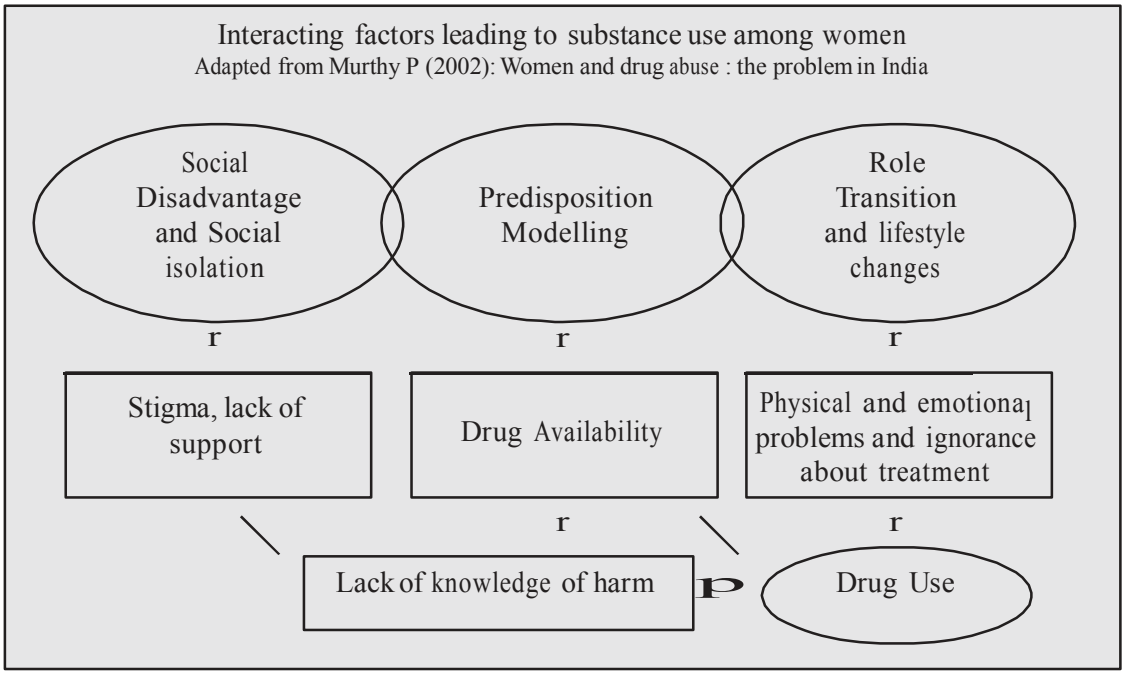
Research in developed countries suggests that a number of social factors differentiate women and men substance users. Women experience more social disapproval of substance use. Similarly women are more likely to have role models in their families and have an alcohol-using spouse. More female substance users are likely to get separated or divorced. In males, the substance abuse is more likely to affect jobs or career. Women are less likely to be involved in criminal acts or social deviance and have higher internalizing problems than males. Other factors like poor education status, lack of job, young age at work, early marriage and lack of social support increase vulnerability to substance use in female.

Biological responses

Gender differences in the physiological effects contribute to the increased harmful effects of alcohol in women than in men. Women become intoxicated after drinking smaller quantities of alcohol than do men. This may be due to less body water in comparison to size, which means they achieve higher blood concentrations than do men after drinking an equivalent amount of alcohol. Additionally, lower levels of alcohol dehydrogenase enzymes in the stomach results in a higher amount of alcohol in the systemic circulation. Women develop alcohol liver disease with comparatively shorter and less intense drinking than men. More women die from cirrhosis than men. Heavy alcohol consumption may also be associated with increased risk of menstrual disturbances, infertility and breast cancer.

Aetiology

- High family loading
- Greater psychiatric symptoms and dual diagnosis, especially depression
- Greater likelihood of living with an substance using partner
- Greater marital disruption



Pregnancy and lactation

Teratogenic effects of alcohol consumption are well known. Fetal alcohol syndrome (FAS) and fetal alcohol effects of alcohol have been identified as among the leading cause of mental retardation in the western world. FAS is diagnosed by presence of craniofacial anomalies, central nervous system dysfunction, and major organ system malformation. Children born with less than the full constellations are termed as FAE (Fetal alcohol effects), a continuum of fetal alcohol syndrome. The incidence of FAE is found to be 1.9 per 1000 live birth in western studies. In case of heavy alcohol drinking, the incidence increased up to 25 per1000 live births. Under reporting of the alcohol use in women poses difficulty in actual estimation of harmful effects on the fetus. Prenatal alcohol exposure is related significantly to persistent problems with attention, distractibility and slower reaction times.

Use of other substances like cocaine and nicotine showed significant impairment of orientation, motor and intrauterine growth retardation. Term infants born to these mothers had lower mean birth weights, lengths, and head circumferences. Apart from this, the risk of adolescent pregnancy and its complication goes together with increased risk of substance use.

Alcohol and Sex

Traditionally, alcohol is believed to increase sexual power and enjoyment. Studies have shown that it is not alcohol itself, but the belief that alcohol improves sex, which is responsible for increased sexual enjoyment. However, heavy drinking actually inhibits sexual enjoyment. Women who drink heavily have been shown to be more likely to have early sexual experiences, to have a greater number of sexual partners, and to have unprotected sex. This exposes them to the problem of unwanted pregnancies and sexually transmitted diseases. Drinking to intoxication also makes a woman less able to defend herself, and more vulnerable to sexual abuse and rape.

Course of Illness

Initiation

The reasons for initiation of substance particularly alcohol among adolescent girls have been studied predominantly in American situations. Common reasons cited include adolescent depression and problems in adjustment, hanging out with older male friends, peer pressure, feeling of a sense of glamour and power, and disappearing stereotypes about feminity. These reasons are likely to be universal, and equally applicable in India. Adolescence is a time when there is a constant struggle between dependence and autonomy, and all adolescents are extremely vulnerable to psychological pressures includ- ing drinking as a way of creating an image or dealing with the pressures.

Research suggests that while many of the reasons why adolescent's drink are gender blind, some factors may affect girls more than boys.

- Puberty tends to bring a higher incidence of depression among teenage girls, which can trigger alcohol use. One study found symptoms of depression in one in four girls – a rate that is 50 percent higher than in boys.
- Adolescent girls who are heavy drinkers (drink five or more drinks in a row on at least 5 different days in the past month) are more likely than boys to say that they drink to escape problems or because of frustration or anger.
- Friends have a big influence on teenagers overall, but girls are particularly susceptible to peer pressure when it comes to drinking. Adolescent girls are more likely than

boys to drink to fit in with their friends, while boys drink largely for other reasons and then join a group that also drinks.

Girls often are introduced to alcohol by their boyfriends, who may be older and more likely to drink.

It is shown from Indian studies that positive expectancies regarding benefits of alcohol use were cited as the most common reason for initially starting to drink. Also, the positive expectancies cited by men and women differ significantly (Table 1).

Table 1: Positive expectancies regarding effects of alcohol use

Females*	Males**
· Elevates mood · Provides strength after childbirth · Improves health and relieves tiredness	· Improves sleep · Improves sleep · Relieves tiredness, fatigue and worry · Prevents colds, coughs and breathing problems, helps in asthma and paralysis · Increases joy and cements friendship · Improves sexual desire and performance

*Murthy et al (1995) **Chandrasekhar (1994)

Women attributed mood elevating and antidepressant properties to alcohol, and in the light of the prominent pre-existing depression reported by many of them, might have started alcohol as a form of self-medication. Men on the other hand used it to improve sleep or decrease tiredness. The second most common attribution among women was that alcohol had major restorative properties after childbirth. The next most common reason for initiation of drinking was in order to keep company with their husbands.

Course

The course of substance use disorders, particularly alcohol, seems to be different for women than for men. The interval between the age of first drinking and treatment seeking seems to be shorter for women than for men. As mentioned previously, studies suggest that women experience greater medical, physiological and psychological impairment earlier in their drinking career. In addition, women seem to progress between landmarks associated with the developmental course of alcoholism (e.g. regular drinking or loss of control) sooner than men. This accelerated progression of alcoholism in women is commonly referred to as "telescoping."

Assessment and treatment

Once a female patient begins treatment, she should be carefully evaluated for additional psychiatric and substance use disorders. The first step involves building rapport with the patient. It is important to educate them about the substance and its ill effects. It works well when the physician can personalize the harm suffered by the index patient. For example, for a patient having alcohol induce hepatitis, discussing about the physical effects of alcohol is more useful. Linking the medical problem with the substance and recommend reduction or abstinence is the next most important step in the management. Also emphasize patient's responsibility in helping herself out of the problem.

Decisions about in-patient admission need to take into consideration not just clinical issues, but also social issues, especially the care of young children that the patient may have. The need for separate services for women with substance use to address their special social and emotional needs is increasingly being recognized.

Then physician helps the patient in ways to maintain abstinence from substance like recognizing risky situations, coping with negative emotions, handling friends etc. Even if you feel that the patient is not motivated or not sure regarding the treatment, it is very important to keep her in therapeutic net. It helps the person to think and reconsider his views in next follow up. It is helpful to involve the family members, particularly spouse in the treatment plan and long term rehabilitation. Clinical experience suggests that social supports for women substance users are often lacking, and this increases their chances of dropping out of treatment. Enchancing support as part of after-care is very important to maintain recovery among women.

Treatment approaches to substance dependence in women

- ¾ Establishing confidentiality and rapport, being non judgmental
- ¾ Assessment of severity of the problem
- ¾ Comorbid depression, anxiety, and inter personal problem need attention
- ¾ Educate ill effects of substance to her and family and fetus if she is of reproductive age
- ¾ Feed back of the damage due to substance
- ¾ Help in reduction or abstinence and in handling high risk situations
- ¾ Increase self esteem
- ¾ Use pharmacotherapy also where indicated

In a woman who is dependent or having a co-morbid psychiatric problem, it is advisable to refer her to the specialist.

When co-morbid psychiatric disorders are discovered, it is helpful to determine whether the disorder preceded the addiction or had its onset during a prolonged period of abstinence and therefore may be regarded as primary. In the latter condition, the patient should be prepared to recognize early indication of recurrence of the psychiatric disorder during her recovery from addiction.

Pharmacotherapy

In the initial visits the symptomatic treatment of substance withdrawal symptoms is essential. Unless the withdrawal is complicated by conditions like delirium tremens or seizures, most cases can be treated as outdoor basis. This is especially important in social situations when admission may not be feasible.

Conclusion

Under recognition of substance abuse and barriers to accessing services often prevent women from benefiting from treatment. First, identification of women substance abusers by health care professionals can be hindered because of stereotypic views of women and of substance abusers. Second, women often have basic needs such as food, economic constraints, housing, and safety from battering or assault. Furthermore women, more often than men are primary care givers for their children and that may hinder from entering into treatment due to lack of social support.

Summarising, women need some of the same treatment services as men, such as detoxification, education, support, and treatment of comorbid physical and psychiatric disorders. Women, however, require more attention for childcare, associated psychiatric and medical disorders, building self-esteem, supportive therapy from therapist, care from spouses, and other possible sources of support in the community.

Suggested Reading

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9. Murthy P. Alcohol consumption and its consequences for women. In Young Ladies (ed) A. Khwaja. Banjara academy, Bangalore, 2003: 31-36.

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Suggested slides for OHP

Slide1

- Substance use traditionally a disease of men
- Recent research show significant differences in biology, sociocultural factors and psychological morbidity in women and men
- Very few studies exist on substance abuse and women

Slide2: Epidemiology

US – Prevalence of alcohol use disorders in women 1/5 as compared to men
Alcohol dependence ½ compared to men
Tobacco dependence: 27% in females

India – Traditional and cultural use permissible in certain sections of society
Treatment seekers: 1 – 3% of treatment seekers are females
Study in 3 cities in 2002:
Heroin, Propoxyphene, Alcohol, and Minor Tranquilisers
Majority in 20s – 30s, employed Rapid assessment survey: 7.9% female users Most common:
Single uneducated females
Early onset of drug use
Family history positive
Early initiation into sexual life
Tobacco use: 3.7% of females in India smoke

Slide 3: Etiology

A) Genetic factors: Robust association with alcoholism
Both state and trait markers seen

B) Psychological: Strong association compared to males
Low self esteem, impaired ability to cope
Increased association of depression (odds ratio of 4.10 for alcohol)
Indian studies: Depression – 62.7%
Anxiety – 53.3%

Slide 4: Etiology contd…

C) Sociocultural: Role models present
Increased likelihood to have a drug using spouse
Increased social disapproval
Decreased likelihood of legal problems

D) Biological responses: gender differences present
Females intoxicated with smaller quantities
Develop alcohol liver disease earlier with shorter duration of alcohol use
Increased risk of menstrual disturbance, infertility and breast ca

Slide 5: Pregnancy and Lactation

Alcohol: Teratogenic effect present
Fetal alcohol syndrome: craniofacial anomaly, CNS malfunction, major organ malformation
Fetal alcohol effects: 1.9/ 1000 live birth (western studies)

Other substances: IUGR, impairment of orientation, motor abnormalities

Slide 6: Course of illness

Initiation:
Common reasons – adolescent depression, adjustment problems, hanging out with older male friends, peer pressure, glamour
Increased expectancies regarding effect of alcohol use
Course:
Interval between age of initiation and treatment seeking shorter for females compared to males
Greater psychological and physiological impairment
Faster telescoping

Slide 7: Assessment and Treatment

- Establishing confidentiality and rapport, being non judgmental
- Assessment of severity of the problem
- Comorbid depression, anxiety, and inter personal problem need attention
- Educate ill effects of substance to her and family and fetus if she is of reproductive age
- Feed back of the damage due to substance
- Help in reduction or abstinence and in handling high risk situations
- Increase self esteem
- Use pharmacotherapy also where indicated