

Mental Health Among Women Who Consume Substance: Implications for Substance Use Prevention

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ABSTRACT

A study by United Nations Office on Drugs and Crime (2008) conducted in India revealed that 51% of 1865 women drug users in the country had major substance use disorder and 87% were major alcohol users. Considering the bare minimum research done on women specifically with regards to substance use, the objectives of this study were to measure the relationship between anxiety, depression and stress among women who consume substance and to assess the relationship between anxiety, depression and stress with different types of substance. Correlational research design was used and data was collected from 200 women residing in Mumbai falling in the age group of 23 to 65 years. A semi-structured questionnaire was used to capture the socio-demographic data of the participants. The DASS-42 was administered on the participants to measure the depression, anxiety and stress levels. The results showed that there were significant differences in anxiety, depression and stress levels among women who did and did not consume substance. There was a significant negative correlation seen between drugs and anxiety, depression and stress levels; smoking and anxiety and stress levels. However, no correlation was seen between alcohol and anxiety, stress and depression levels; smoking and depression levels. The results of the linear regression revealed that consumption of drugs help predict depression, anxiety and stress levels. The present study can help to understand the mental health of women from Mumbai and those who consume substance. This can be further employed to develop effective government policies for substance use and help to prevent addiction.

Keywords: *Mental Health, Stress, Anxiety, Depression, Smoking, Alcohol, Drugs, Women, Substance Use Prevention*

Substance use, which used to be a taboo earlier has become very common now. It is also obvious that people from the backward socio-economic backgrounds are known to be consuming different forms of substance- especially, alcohol and different means of taking in nicotine through cigarettes or 'beedi' along with drugs. It has also been explicitly expressed that alcohol, drugs and smoking are more of a masculine thing. Due to the stereotypes, the reality of the state of women in the world of substance use has always been underreported. If women have ever consumed substance as openly as men, they have

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Received: June 21, 2022; Revision Received: August 14, 2022; Accepted: August 29, 2022

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been looked down upon. According to World Health Organization (2002), 8.9% of the alcohol and drug use disorder is due to use of psychoactive substances where tobacco accounted for 4.1%; alcohol for 4%; and drugs for 0.8%. SUDs were prevalent only in men till 1990 as revealed by the epidemiological studies. (Murthy et al., 2010) However, recent studies have shown that SUDs are prevalent among women too in a range of 2% to 8% (World Health Organization, 2005). Studies have further revealed that common substances abused by women include alcohol, tobacco, opioids, and prescription drugs (International Institute for Population Sciences, 2007). It has been proven through research that uses of such substance that people tend to develop dependency eventually that leads to addiction, anxiety, depression and stress. A study of SUD cases found that 16% had major depressive disorder and bipolar disorder. (Gania et al., 2017).

Drugs have a severe impact on the brain and they take the longest time to exit the human system depending on the quantity and frequency of ingestion. In terms of drugs, cannabis and opioids are the most frequently and commonly used drugs in India (Ambedkar et al., 2019). Illegal drug use causes mortality earliest in life, 65% of the alcohol deaths take place before the age of 60, while 70% of the tobacco deaths occur after the age of 60 (Chandra D., 2017). A study in 2012 expressed that 42% of 41.5 million drug users were women (Lal et al., 2015). A study of 1590 women using drugs revealed that 77.2% of female drug users were in their twenties and thirties (Murthy et al., 2008). Another survey revealed that 91% of women consuming drugs use heroin and women using drugs face mental health issues like insomnia, depression and anxiety (Kumar, 2002). A survey by World Health Organization found that 43.7% women in the age group of 18-30 years, 41.7% women in the age group of 31-45 years, 39.1% women in the age group of 46-60 years and over 53% women who are above 60 years old consume alcohol (Times of India, 2019). It has been reported that in 2005, 17.4% of 62.5 million people consuming alcohol suffer from alcohol use disorder (National Health Portal of India, 2015). A study revealed that alcohol is the most common psychoactive substance used by Indians. They further detailed that approximately 14.6% of the population in the age group of 10 years to 75 years consumes alcohol (Ambedkar et al., 2019). A report also stated that India has a higher count of female smokers globally- over 12.1 million (Datta, 2018). The Global Adult Tobacco Survey India (2010) printed that the estimated number of tobacco users in India was over 270 million where the prevalence of overall tobacco use among men was 48% and women was 20%. A study further revealed that smoking has doubled amongst women from 1.4% to 2.9% during the period of 2005 to 2010 and has increased from 1.9% in 1990 to 2.9% in 2010 (Goel et al., 2014).

Anxiety impacts people in different ways, from causing uneasiness to making it difficult to sleep. A study revealed that women carry a 2-3 times higher risk of developing generalized anxiety disorder compared to men (Kornstein & Clayton, 2002). Anxiety is likely to get precipitated by the use of alcohol. A study revealed that there was an increase in anxiety levels with an increase in alcohol ingestion in certain groups whereas stress was seen to be a control factor for alcohol ingestion by adolescents (Pohorecky, 1991). Different types of anxiety trigger and result in use of different substances. This varies for gender too. For instance, a study revealed a significant relationship between social anxiety disorder and alcohol use for women whereas this wasn't seen in men (Buckner and Turner, 2009).

Depression is a common illness that damages the quality of life by limiting one's psychosocial functioning. In 2008, World Health Organization ranked major depression as the third cause of burden of disease worldwide and projected that the disease will rank first

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by 2030. Institute of Health Metrics and Evaluation (2019) claims that approximately 280 million people in the world are suffering from depression. Depression has also been referred to as the “common cold” in psychiatry due to its frequent diagnosis (Seligman, 1973). Substance use and abuse act as a major cause of depression. Nearly 30% of people with substance use disorder have major or clinical depression (Bruce, 2008).

Stress is now a word on the tip of most of the people’s tongue. It can be explained as something that causes one to get worked up. However, if seen otherwise, the impact is beyond. The human body has a response mechanism to stress. Hence, when in a stressful situation, the body releases stress hormones like cortisol that result in fight or flight response. A study revealed that smoking intensity has been positively and statistically been impacted by job stress for light smokers. On the other hand, it has a positive and significant impact on alcohol consumption mainly for heavy drinkers (Azaghba & Sharaf, 2011). It has also been found that women attribute their drinking to a stressor or traumatic event. The study further revealed that women who have been physically or sexually abused are more likely to use drugs. Women suffering from alcoholism have also been diagnosed with major depression and anxiety disorders (Lex, 1991).

Objectives of the study

- To measure the relationship between anxiety, depression and stress among women who consume substance (alcohol, smoking and drugs).
- To assess the relationship between anxiety, depression and stress with different types of substance (alcohol, smoking and drugs).
- To understand the difference in anxiety, depression and stress between women who consume substance and do not consume substance.

Hypotheses

- There will be positive correlation between substance use (alcohol, smoking and drugs) and stress, anxiety, depression levels among women.
- Substance use (alcohol, smoking and drugs) predicts the anxiety, stress and depression among women.
- To compare anxiety, depression, and stress levels among women who consume substance (alcohol, smoking and drugs) and women who do not consume substance.

METHODOLOGY

For the present research study, a correlational design was employed. Data was collected using purposive sampling technique from 200 women of age group of 23 to 65 in Mumbai suburban region. Two instruments were used to collect data in this study.

- **Self-Report Questionnaire:** Socio-demographic information of the participants was collected using a self-report questionnaire. It covered information such as age, education, marital status, socio-economic status, consumption of substance, and frequency of consumption of substance.
- **DASS-42:** The DASS-42 is a self-report scale consisting of 42 items which is devised by Lovibond & Lovibond in 1995 and has been proposed by Australian Psychological Society. The core function of the DASS is to assess the severity of the symptoms of Depression, Anxiety and Stress. The validity between The Beck Depression Inventory (BDI) and The Beck Anxiety Inventory (BAI) has been determined and the results are that DASS is highly related (respectively .74 and .81)

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(Lovibond & Lovibond, 1995). The DASS is measured with test-retest reliability coefficient and has been calculated .48. The Cronbach's Alpha internal consistency coefficients have been determined for depression as .96, anxiety as .89, and stress scale as .93.

Procedure

The participants were contacted through social media, WhatsApp, and in social gatherings. The consent was taken from the participants and the proposed psychological tools were administered on the participants. Following the same, the participants were debriefed.

RESULTS

Table 1 Consumption of Alcohol, Smoking & Drugs

Variable	n	%
Alcohol		
Yes	103	51.50
No	97	48.50
Smoking		
Yes	70	35.00
No	130	65.00
Drugs		
Yes	61	30.50
No	139	69.50

According to Table 1, 51.50% (n=103) consumed alcohol whereas 48.50% (n=97) did not. 35% (n=70) were engaged in smoking behaviour whereas 65% (n=130) were not. Lastly, 30.50% (n=61) women consumed drugs whereas 69.50% (n=139) did not.

Table 2 Depression, Anxiety & Stress Scores

Variable	M	SD	n	SE _M	Min	Max	Skewness	Kurtosis
Depression Score	15.64	12.40	200	0.88	0.00	42.00	0.11	-1.55
Anxiety Score	17.36	14.19	200	1.00	0.00	41.00	0.20	-1.64
Stress Score	16.80	10.52	200	0.74	0.00	39.00	-0.18	-1.34

According to Table 2, depression score had an average of 15.64 whereas the anxiety score had an average of 17.36 and the stress score had an average of 16.80.

Table 3 Correlations between Substance Use (Alcohol, Drugs and Smoking) & Anxiety, Depression & Stress Levels

Sr. No	Variable	1	2	3	4	5	6
1	Alcohol	-			-.107	-.034	-.096
2	Drugs		-		-.256*	-.179*	-.285*
3	Smoking			-	-.171*	-.103	-.184*
4	Anxiety	-.107	-.256*	-.171*	-		
5	Depression	-.034	-.179*	-.103		-	
6	Stress	-.096	-.285*	-.184*			-

*p<0.05 **p<0.01 ***p<0.001

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There is a significant negative correlation seen between drugs and anxiety, depression and stress levels. A significant negative correlation is also seen between smoking and anxiety and stress levels. However, no correlation is seen between alcohol and anxiety, stress and depression levels; smoking and depression levels.

Table 4 Results for Linear Regression with Alcohol, Smoke, and Drugs predicting Anxiety, Depression & Stress Level

Alcohol	B	SE	β	t	p
Anxiety	-1.73	2.01	-0.06	-0.86	.390
Depression	-0.12	0.25	-0.03	-0.48	.633
Stress	-0.27	0.20	-0.10	-1.37	.172
Smoking					
Anxiety	-0.64	0.26	-0.17	-2.44	.016*
Depression	-0.38	0.26	-0.10	-1.45	.148
Stress	-0.55	0.21	-0.18	-2.65	.009*
Drugs					
Anxiety	-1.00	0.27	-0.26	3.73	<.001*
Depression	-0.68	0.27	-0.18	-2.56	.011*
Stress	-0.87	0.21	-0.29	-4.19	<.001*

* $p < 0.05$ ** $p < 0.01$ **** $p < 0.001$

The results of the linear regression model explained that approximately 2.92% of the variance in anxiety level and 3.42% of the variance in stress level is explainable by smoking. Hence, not smoking can reduce anxiety (0.64 units) and stress (0.55 units) levels. The results further explained that 6.58% of the variance in anxiety levels, 3.20% of the variance in depression levels and 8.13% variance in stress levels. Hence, not consuming drugs can reduce anxiety (1.00 units), depression (0.68 units) and stress levels (0.87 units) in women.

Table 5 Results for ANOVA with Alcohol, Smoke, and Drugs comparing Anxiety, Depression & Stress Level in Women who Consume Substance & those who don't.

Variable	CONSUME			DO NOT CONSUME			Sig. p
	M	SD	n	M	SD	n	
Alcohol							
Anxiety	2.31	1.93	103	1.74	1.85	97	.133
Depression	1.91	1.73		1.79	1.79		.633
Stress	1.59	1.41		1.32	1.40		.172
Smoking							
Anxiety	2.54	1.90	70	1.90	1.80	130	.016*
Depression	2.10	1.72		1.72	1.76		.148
Stress	1.81	1.27		1.40	1.39		.009*
Drugs							
Anxiety	2.82	1.60	61	1.82	1.80	139	.07*
Depression	2.33	1.67		1.65	1.76		.011*
Stress	2.07	1.34		1.19	1.36		<.001*

* $p < 0.05$ ** $p < 0.01$ **** $p < 0.001$

The results of the ANOVA were significant indicating there were significant differences in anxiety, depression and stress levels among women who did and did not consume substance. There were significant differences seen in anxiety and stress levels of women who smoke compared to those who do not. Also, significant differences were seen in anxiety, depression and stress levels of women who consumed drugs compared to those who do not.

CONCLUSION

As the consumption of harmful, psychoactive substances increases in the lives of women it is important to realize how it impacts their mental well-being in terms of anxiety, depression and stress. By examining the relationship of anxiety, depression and stress and substance use among women, this study established that alcohol has no relationship anxiety, depression and stress. Findings by Gania et al. (2017) contradict the given findings. The study also added that smoking is not related to depression and stress as well. However, the given finding was not supported by the findings of Azaghba and Sharif (2011). However, it also found that consumption of drugs and smoking is negatively related to anxiety. Nonetheless, the same finding has been contradicted by Moylan et al. (2013). The study also revealed that consumption of drugs predicted anxiety, depression and stress level. The same was supported by findings of Kumar (2002). It also revealed that smoking predicted anxiety and stress levels. These findings have been supported by Wiggert et al. (2016). Moving further, the study highlighted that there are no significant differences in levels of anxiety, depression and stress in women who consume alcohol and those who do not. However, this finding was not supported by the study of Pohorecky (1991). It was also found that there are significant differences in levels of anxiety, depression and stress in women who consume drugs and those who do not. These findings were supported by that of United Nations Office on Drugs and Crime (2008). Lastly, the study found that there were significant differences in the levels of anxiety and stress in women who smoke compared to those who do not whereas no differences were seen in depression levels with regards to smoking. The same was supported by Moylan et al. (2013). This suggests that, while all types of psychoactive substances may not lead to anxiety, depression or stress, it is also important to consider the wider psychological context in which this usage occurs: Women who are already predisposed to anxiety, depression and stress issues may be at greater risk of experiencing negative effects.

Delimitations

This study has potential limitations. To begin with, the study was focused only on the population of Mumbai suburban. Also, the psychometric properties of the instrument used were not tested on the target audience.

Practical Implications: The study can act as an aid to help people realize the detrimental effects of substance use. It can also help practitioners use integrated therapeutic modules so as to prevent the people suffering from a mental disorder to slip into substance use and vice versa. Lastly, the study can also help to formulate effective government policies regarding substance use.

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Acknowledgement

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Shah, M. & Raut, R. (2022). Mental Health Among Women Who Consume Substance: Implications for Substance Use Prevention. *International Journal of Indian Psychology*, 10(3), 546-553. DIP:18.01.054.20221003, DOI:10.25215/1003.054