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ORIGINAL ARTICLE

Prevalence of Substance use Among Depressed Female Patients

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INTRODUCTION

Depressive disorder is a common mental disorder and one of the leading causes of disability around the globe. It is characterized by depressed mood, lack of enjoyment, decreased activity, negative thoughts and reduced concentration for at least two weeks.[1] Globally 350 million people are suffering from depression and 18.34 million people from Southeast Asia alone.[2]

Major depressive disorder is growing in overall disease burden around the world. It is predicted to be the leading cause of disease burden by 2030, and it is already the leading cause in women worldwide.[3] Depression affects the prefrontal cortex, cingulate gyrus, amygdala, hippocampus, thalamus and hypothalamus. These brain regions are involved in the regulation of motivation, eating, sleeping, energy level, circadian rhythm, and responses to rewarding and aversive stimuli, which are all abnormal in depressed people.[4]

Depression not only disturbs the physiology, functionality, and social life of the sufferer but it also makes an individual vulnerable to maladaptive methods of coping such as substance use. “Substance use” refers to the use of drugs or alcohol, and includes substances such as cigarettes, illegal drugs, prescription drugs, inhalants, and solvents. The National Institute of Drug Abuse (USA) reports that 19.5 million females of ages 18 or older had used illicit drugs in the past one year as a result of depression or vice versa.[5] The co-occurrence of substance use disorders with mental health conditions increases the complexity of diagnosis and treatment. Therefore, exploring the prevalence of concomitant substance use in depressed patients is very vital.

Prevalence of co-morbid substance use is found to be significantly higher among women with depressive disorder. In a study conducted on females with major depressive disorder, 20.9% also met the criteria for substance use disorder. Among commonly used substances were tobacco (cigarettes, chewing tobacco, snuff, cigars and/or pipe tobacco), illicit drugs (cocaine, hallucinogens, heroine, inhalants and marijuana) and non-medical prescription drugs (pain relievers, tranquilizers, sedatives and stimulants).[6]

The combined prevalence of depression and anxiety disorder in Pakistan is found to be 34% [7] but the prevalence and types of co-morbid substance use with depressive disorder is yet to be found in the female population. Literature has indicated that patients with concomitant substance abuse issue and mental health illness have severe disease course and poorer prognosis.[8-9]

In another study, it was found that depressed males with substance abuse problems had significantly more severe clinical profiles than depressed females as well as males without depression. [10]

Keeping in view the prevalence of co-morbid substance use among depressed females, insufficient research data could be found after careful literature review of our country. It creates a high need for subject research at this point in time in order to verify the frequency of comorbid substance use in females in our population. It can help in sensitizing the healthcare professionals to keep an eye on comorbid substance use and its effects on the prognosis of depression so that early intervention can be done to improve the quality of life of the females with depression and reduce her suffering. The present study aimed to assess the incidence rate of comorbid substance use among female patients with depressive disorder.

METHODS AND MATERIALS

A descriptive cross-sectional study was conducted in a Psychiatric consultation clinic in Karachi. Patients of female gender aged 18 years or above presenting at a private psychiatric facility in Karachi from January 2015 to December 2019 were consecutively selected after informed consent. Ethical issues were addressed according to the Institutional Review Board (IRB). Patients with psychotic symptoms, chronic painful medical illnesses such as rheumatoid arthritis, cancer, chronic liver or renal failure, delirium and dementia were excluded. ICD-10 (International Classification of Diseases, Version-10) criteria along with complete history, physical examination and selective laboratory investigation were used to confirm the diagnosis of Depressive disorders. Diagnosis of substance use disorders was based on ICD-10 criteria. A semi-structured questionnaire was used to collect data and it was analyzed using SPSS Version-21. Descriptive statistics were calculated for age, gender, marital status, education, profession and substance use. Chi Square was applied to categorical variables taking P value <0.05 as significant.

RESULTS

A total of 1178 patients were included in the study. The mean age of the patients was 28.4 ±

11.4 years with a mean weight of 58.5 ± 21.3 kgs. The mean duration of marriage was 7.9 ±

10.35 years while the mean family size of the patients was 9.7 ± 18.2 members. Patient characteristics are mentioned in table 1. Out of the 1178 female patients, 110 (9%) claimed that they had substance use problems. Nine percent of patients did not receive any formal education.

Table 1: Subject Characteristics

Characteristics	n (%)
Informant	
Parents	453 (37.2%)
Brother	103 (8.4%)
Sister	81 (6.6%)
Husband	305 (25%)
Close relative	90 (7.4%)
Other	71 (6%)
Daughter	38 (3.1%)
Son	39 (3.2%)
Marital Status	
Single	509 (41.8%)
Married	624 (51.2%)
Divorced	13 (1.1%)
Other	40 (2.5%)
Mother tongue	
Urdu	410 (33.6%)
Punjabi	115 (9.4%)
Sindhi	205 (16.8%)
Balochi	89 (7.3%)
Pushto	206 (16.9%)
Memon	52 (4.3%)
Hindko	36 (3%)
Other	53 (4.3%)
Education	
No formal education	109 (9%)
Primary	90 (7.4%)
Secondary	133 (10.9%)

Matric	188 (15.4%)
Intermediate	217 (17.8%)
Graduate	227 (18.6%)
Post-graduate	197 (16.2%)
Occupation	
Studying	266 (21.8%)
Unemployed	753 (61.8%)
Employed	131 (10.7%)
Substance use	
yes	110 (9%)
no	1107 (90.8%)

Upon exploring, it was found that patients who were divorced are more prone to suffering from addiction to substance. Out of the 13 divorcees, four (30.8%) had substance use problems; p=0.04. Furthermore, the majority of the patients who had substance use problems were Urdu speaking patients. Ethnicity was significantly associated with risk of substance use (p=0.0002).

Table 2: Association of Demographic features and substance use among patients

	Substance Use		
	Yes	No	p-value
Age	29.2 ± 10.46	28.35 ± 11.5	0.455
Duration of marriage	8.4 ± 8.97	7.83 ± 10.5	0.606
Family Size	10.65 ± 12.55	9.6 ± 18.8	0.571
Weight (kg)	58.24 ± 24.44	58.5 ± 20.87	0.917
Marital Status			0.048
Single	36 (7.1%)	473 (92.9%)	
Married	69 (11.1%)	553 (88.6%)	
Divorced	4 (30.8%)	9 (69.2%)	
Mother tongue			0.002
Urdu	35 (8.5%)	375 (91.5%)	
Punjabi	13 (11.3%)	101 (87.8%)	
Sindhi	11 (5.4%)	193 (94.1%)	
Balochi	18 (20.2%)	71 (79.8%)	
Pushto	12 (5.8%)	194 (94.2%)	
Memon	6 (11.5%)	46 (88.5%)	
Hindko	4 (11.1%)	32 (88.9%)	
Other	11 (20.8%)	42 (79.2%)	
Education			0.158
None	12 (11%)	97 (89%)	
Primary	9 (10%)	81 (90%)	
Secondary	14 (10.5%)	119 (89.5%)	
Matric	25 (13.3%)	161 (85.6%)	
Intermediate	22 (10.1%)	195 (89.9%)	
Graduate	20 (8.8%)	207 (91.2%)	
Post graduate	8 (4.1%)	189 (95.9%)	
Occupation			0.079
Studying	9 (3.4%)	257 (96.6%)	
Unemployed	82 (10.9%)	669 (88.8%)	
Employed	17 (13%)	114 (87%)	
Psychiatric illness			
Only Depression	108 (9%)	1087 (90.8%)	0.982
Depression and Anxiety	2 (9.1%)	20 (90.9%)	

A total of 22 patients had both depression and anxiety, however, only two of these also claimed to suffer from substance use. While, 108 (9%) of the women who had only depression also had substance use problems, albeit the difference was statistically insignificant (p=0.982) (Table 2).

DISCUSSION

The objective of our study was to discover the frequency of substance use in women with diagnosed depressive disorder. The mean age of the females in the study was 28.4 ± 11.4 who were married off at a younger age. They had a large family of 9.7 ± 18.2 members and mean marriage years were 7.9 ± 10.35. The women were not particularly overweight, in fact many were below the adequate weight for their age as the mean weight of 58.5 ± 21.3 kgs. We also found out that among ethnicities, Urdu speaking population was most likely seen with substance use problems as ethnicity was associated with the increased risk of substance use, p value = 0.002. However, 9% of those women who were depressed had substance abuse disorders and also did not have any formal education. Divorced patients were more likely to suffer from substance use.

Similarly, Andersson et al. in their study found the rate of substance abuse to be high in patients who were diagnosed with psychiatric disorders such Anxiety, Personality disorders and schizophrenia.[11] However, in contrast to our study, males in this study were twice as much likely to have substance abuse disorders between the ages of 24 and 29 years as this group was lower in the socioeconomic chain. Onaemo et al. conducted their study from 1996 to 2012 and found a higher rate of substance use in females who were 30 years or older, these women also belonged to a lower socioeconomic status and had no proper formal education, which was similar to our results. Dependence on alcohol was seen to increase the risk of depression in females by three times which was also associated with increased mental disability and suicide rates.[12]

Furthermore, Joekar et al. in their results found that 30.5% of women suffered from Post-Traumatic Stress Disorder (PTSD) who were admitted in treatment centers for substance abuse disorders.[13] This was also similar to studies done in the US and UK which showed that trauma level was high in this population as many of them were victims of domestic violence.[11-16] Similarly, Pirard et al. in their study found physically assaulted subjects to be mainly women to have an impaired ASI (Addiction Severity Index) and sexual or physical assault was most likely seen with hospitalization for psychiatric disorders as well as for substance abuse disorders.[16] In our study, only 22 patients presented with depression and anxiety out of which only 2 patients suffered from substance abuse. The difference between women who only had depression and substance abuse and with the latter was not significant (p value = 0.982).

Fatseas et al. in their study found comorbidities between addictive and psychiatric disorders to be quite common where anxiety or mood comorbidities disorders were linked with an increased intensity of craving.[17] Bahorik et al. found marijuana users had worsened symptoms of depression (p< 0.001), anxiety (p=0.025), worsening mental health status (p=0.10) and worsening physical health (p=0.044).[18] The authors also discussed that chronic usage of marijunana was also linked to poor recovery of depressive symptoms among patients who were diagnosed with depression.

Our study was not without limitations. Our small sample size was not enough to generalize the results to other gender and treatment settings. We did not focus on stress as a factor for substance abuse. Unlike other studies we should have focused more on domestic violence leading to higher rates of substance abuse disorders in women.

CONCLUSION

The present study indicated that depression was not significantly associated with risk of substance abuse among female patients. However, Urdu speaking patients and those who were divorced more frequently indulged in substance abuse. Further large-scale studies are required to explore the cause and contributory factors associated with substance abuse among female depressed patients.

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