DEPRESSION AMONG PATIENTS WITH SUBSTANCE USE DISORDER IN A REHABILITATION PSYCHIATRY UNIT: A STUDY FROM KHYBER TEACHING HOSPITAL, PESHAWAR

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ABSTRACT

Objective: To determine the frequency of depression among patients admitted for substance abuse detoxification at the psychiatry department of Khyber Teaching Hospital, Peshawar

Methods and material: This descriptive cross-sectional study was conducted in the Department of Psychiatry at Khyber Teaching Hospital from 29th November 2020 to 29th May 2021.137 patients were observed, in our study. Patients were subjected to detailed history and clinical examination. All the patients were subjected to detailed interviews using the Hamilton Depression Rating Scale in a calm environment to detect depression. All the observations were recorded in the presence of an expert psychiatrist fellow of CPSP (with a minimum of five years of experience). All above-mentioned information including name, age, and address was recorded on a pre-designed Proforma by the trainee. Care was taken during the extraction of information from all patients to avoid responder bias. Responder bias was avoided by using a structured, validated questionnaire with neutral wording, training data collectors to ensure impartiality, and conducting interviews in a private setting to encourage honest responses.

Results: Our study shows that among 137 patients, the mean age was 30 years with a standard deviation ± 10.05. 133(97%) patients were male and 4(3%) patients had female. 97(1%) patients had depression.

Conclusion: Our study concludes that the frequency of depression was 71% among patients admitted for substance abuse detoxification at the psychiatry department of Khyber Teaching Hospital, Peshawar.

Keywords: depression, substance abuse detoxification.

INTRODUCTION

Substance abuse is a condition in which a person develops a dependence on drugs or other substances, resulting in significant harm to their physical and mental health. It is marked by the repeated and improper use of these substances, leading to detrimental effects on the individual's well-being, relationships, and overall societal functioning[1,2].

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According to a 2023 press release from the World Health Organization in Pakistan 24 million people have mental health disorders, in that press they mentioned that in Pakistan for a 100,000 population, only 0.19 psychiatrists are available [3]. In 2018 a survey was done in which they concluded that it costs around 600 billion US dollars annually in the United States to address substance use disorders, a spike in heroin abuse was seen in 2002 and 2016 and cocaine abuse was seen in 2017 while in Pakistan the psychiatry disorder ranges from 10-66% [4,5]. Tobacco was the leading cause of early death in the years 2006 and 2016. A threefold increase in opioid overdose was seen in 2010-2014 which was also the main cause of a decrease in life expectancy [6-9].

In psychological patients, substance use is more prevalent which has been mentioned in updated literature It directly influences an individual life and his surroundings as the abuse can lead to financial factors, social, physical, and genetic. They are more prone to mood disorders and suicide[10-12].

Among substance abuse Patients who were admitted for detoxification the prevalence of

depression was 21%[13], 48.96%[14,] and 30%[15] commonest drug used in substance abuse was heroin followed by opioids. The rate of suicide was noted more common in those who were doing drug abuse. In the long-term drug abuse leads to distortion of brain chemistry that leads to social isolation[16].

This study was specially designed to find the frequency of depression in patients admitted to Khyber Teaching Hospital for detoxification. In our society drug abuse is getting more common day by day which is one of the leading causes of admission to the psychiatric department in Khyber Teaching Hospital. One of the greatest challenges in overcoming drug abuse is the risk of relapse. This often stems from the overwhelming weight of socioeconomic struggles, the influence of peer pressure, inadequate coping mechanisms, and a lack of strong family support. The analysis of our data will help in filling the current gap and setting future recommendations and guidelines to reduce drug abuse.

MATERIAL AND METHODS

This cross-sectional descriptive study was carried out in the Department of Psychiatry at Khyber Teaching Hospital Teaching Hospital which is a 1600-bed hospital containing different departments, using a non-probability consecutive sampling technique the study duration was 6 months that is from 29 November 2020 to 29th March 2021. The data of the patients was included anonymously after acquiring consent, with the full permission of the administration. The sample size was calculated using the WHO sample size calculator by taking the population prevalence of 22.5%[13]. With a 95% confidence interval and 7% margin error, the calculated value is 137.

For inclusion, we include only those patients admitted for detoxification for substance abuse like heroin, cannabis, benzodiazepines, and alcohol. Participants aged 20 to 60 years, with a documented history of substance abuse for a minimum duration of one year, as verified by a caregiver or attendant, irrespective of gender. Individuals with a prior diagnosis of depression documented in their medical records or history were excluded, whereas subjects without such a diagnosis were included. Patients with a history of emotional trauma, sudden loss of assets or near relatives in the last 6 months and Patients presenting in a state of shock or coma.

The study was done after receiving clearance from Khyber Teaching Hospital's Ethics Review Committee (ERC) (clearance No. 477/DME/KMC). Patients who met the inclusion criteria were enrolled. Before conducting interviews and physical examinations, the patient's attendants provided written informed permission. Structured interviews were used to collect data, which included administering the Hamilton Depression Rating Scale. An experienced psychiatrist supervised the observations, which were recorded by a professional researcher using a pre-designed proforma to assure data accuracy and standardization. Responder bias was avoided by using a structured, validated questionnaire with neutral wording, training data collectors to ensure impartiality, and conducting interviews in a private setting to encourage honest responses.

For Data, we used SPSS 20.0. Quantitative variables like age and duration of abuse were described as mean ± SD. Categorical variables like gender, reason for substance abuse, and depression were described in terms of frequencies and percentages. Stratification was made in age, duration of abuse, the reason for abuse, and gender to see the effect modifiers using the chi-square test with a P value of $\leq$ 0.05 considered significant. Data was presented in tables.

RESULTS

Out of 137 diagnosed patients, the mean age was reported as 30±10.05yrs., the most common age group was the 20–40-year group with 93(67.8%) frequency followed by the 41-60 years group with 44(32.1%) frequency. The frequency of males was reported as 133(97%) and for 4(3%) of females The ratio of substance abuse is low as compared to females because of our culture in which males are very prone and in the majority of families living in Pakistan Mentioned in table no 1.

Table 1: showing demographics

Variable	Category	Frequency	Percentage
Age	20-40	93	67.8%
	41-60	44	32.1%
Gender	Male	133	97%
	Female	4	4%
Depression	Yes	97	71%

	No	44	29%
Duration of abuse	<1 year	53	38.6%
	>1 year	84	61.3%
Reason for doing drug abuse	Peer group	78	56.9%
	Social/economic problem	38	27.7%
	Family member	14	10.2%
	Unknowingness	7	5.15

Among patients 71% had depression, While 29% didn't have any depression, for depression we use Hamilton Depression Rating Scale. The analyzed data is in the form of frequency and percentage. The duration of abuse was analyzed in which 39% reported abuse of less than 1 year while 61% reported abuse with more than 1 year. For a reason, the most common cause was reported as of the peer group with a frequency of 56.9% followed by social/economic problems with a frequency of 27.7% followed by there was a patient in the family using drugs with a frequency of 10.2% and 7(5.15%) patients reported they had because of unknowingness mentioned in table no 1.

Table 2: Correlation Between Variables and Depression

Variable		Depression		p-value
		Yes	No	
Age	20-40 years	68	25	0.3861
	41-60 years	29	15	
Gender	Male	95	38	0.3530
	Female	2	2	
Duration of abuse	≤ 1 year	40	12	0.3397
	> 1 year	57	27	
Reason for abuse	Peer group	55	23	0.9997
	Social/economic problem	27	11	
	Family member	5	2	
	Unknowingness	10	4	

Depression was slightly higher in the 20–40 age group (73%) compared to the 41–60 age group (66%). Males showed a higher rate of depression (71%) than females (50%).Peer group influence accounted for a significant proportion of cases with depression (71%). There was no such relation being reported between depression with age, gender, duration of drug abuse, and reason for drug abuse shown in Table no 2.

DISCUSSION

In late 2017, Malik S et al. conducted a study on drug abuse patients, reporting that out of 589 only 133 (22.5%) were diagnosed with depression. In contrast, our study found a significantly higher frequency of depression, with 97 (70.80%) among those seeking detoxification [17]. A comparable study done in Iran in 2013 and published in 2018 by Novin MH et al. found a 48.96% prevalence of depression among those undergoing drug detoxification, which is significantly lower than the 70.80% recorded in our study. Furthermore, their study found a strong relationship between depression and age ($p < 0.05$). In contrast, our data showed no significant connection between depression and age ($p = 0.386$)[18]. Another study by Hodgson *et al*. showed that 2/3rd of the participants who came for drug detoxification had depression which shows concordance with our study[19]. Arbab Naz et al. conducted a study in Khyber Pakhtunkhwa, revealing a higher severity of depression among drug addicts compared to non-drug addicts, findings that are consistent with our results[20]. These findings align with Grant et al.'s study, which identified depression as a common comorbidity among individuals with drug misuse issues[21]. However, two other studies present contradictory evidence, suggesting that depression is not prevalent among drug users[22,23].

In 2022 a study was published by Han B[24] in which the sample size was larger in which the female population was very high as compared to our study, in their study 298401 which is

52.4% of the total population was there while in our study only 4% were female, that is because of the culture, their environment and the easy availability to females. Another study by Gaiha SM[25] was conducted in which they stated there is no relation between depression and sociodemographic factors which shows concordance with our study.

Just like every study this study has also some limitations which include the setting area in which only one hospital was included in the future, we recommend a multiple-setting study should be conducted so that we have generalized results.

CONCLUSION

Our study found that depression was reported to be very high Among patients referred for drug misuse detoxification at Khyber Teaching Hospital in Peshawar. The study found no significant link between depression and demographic characteristics such as age, gender, duration of substance addiction, or the underlying causes of drug abuse. These findings highlight the crucial need for integrated mental health screening and intervention during detoxification programs to address the significant prevalence of depression in this group.

AUTHORS CONTRIBUTIONS

1. **Aqeela Iqbal:** Concept & Design; Drafting Manuscript; Critical Revision; Final Approval

2. **Abid Usman**: Concept & Design; Drafting Manuscript; Critical Revision

3. **Muhammad Mujtaba:** Data Acquisition; Drafting Manuscript, Data Analysis/Interpretation

4. **Abdul Hai Wazir**: Drafting Manuscript; Critical Revision; Final Approval

5. **Asif Hussain**: Drafting Manuscript; Critical Revision; Final Approval

6. **Bashir Ahmad**: Critical Revision; Supervision; Final Approval

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