

Depression, Anxiety, Stress: A Comparative Study between Opioid Dependents and Alcohol Dependents

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According to the Magnitude of Substance Use in India, Executive Summary (2019) about 2.1% and about 14.6% of the country's population aged 10-75 years uses opioids and alcohol respectively. Further, it was found that Sikkim, Arunachal Pradesh, Nagaland, Manipur and Mizoram have the highest prevalence of opioid use and alcohol dependence rate for Manipur state is 3.8% in the general population. Considering the alarming situation of the opioid use, alcohol dependence and well established associated co-morbid psychiatric conditions; this study compared Depression, Anxiety, Stress between Opioid dependents and Alcohol dependents. For the study 200 males participants aged 18-45 fulfilling the study criteria were selected through purposive sampling from the different hospitals, rehabilitation centres located in Manipur. The selected participants were administered the Depression Anxiety Stress Scale by Lovibond, & Lovibond. The data was analyzed using Descriptive statistics and t-test. This study found that socio-demographic characteristics of the sample is not significantly different. Further, there is no significant difference found between the two groups with regard to depression ($p > 0.05$) and stress ($p > 0.05$) though there is significant difference in case of anxiety ($p < 0.01$).

Keywords: Depression, anxiety, stress, alcohol, opioid.

Many states of India are having a serious problem of opioid dependence and alcohol dependence as well. At the national level, about 0.7% of Indians aged 10-75 years are affected by opioid use disorders. When dependence rate is compared, Opioid Dependence rate of Manipur state (1.80%) is almost seven times higher than that of the national rate (0.26%). When Alcohol dependence in India is discussed, 19% of the alcohol users consume alcohol in a dependent pattern and rate for Manipur state is 3.8%. Further, 5.7 crore Indians are affected by harmful or dependent alcohol use and required intervention. And one out of five alcohol users suffer from alcohol dependence and needs urgent treatment (Executive Summary 2019).

To address the problem, studies conducted have established comorbid

psychiatric in both the dependence condition. Chhetri et al (2023) found prevalence of major depression among the Alcohol Use Disorder as 38%. It was also found as the most common psychiatric comorbidity in opioid addiction representing 32.8% of the total sample (Allah et al, Jan., 2022). Among people with Opioid Use Disorder, prevalence of depression and anxiety was found as 36% and 29% respectively (Santo et al, 2022). When compared with control group, individuals addicted to opiates have depression (Fooladi et. al, 2014), anxiety (Fatséas, M., et. al 2010; Fooladi et. al, 2014) and higher stress (Hyman et al, 2009; Fooladi et. al, 2014).

When socio- demographic profile is considered, opioid dependents is more likely to be younger (Thomas et al, 2004), single, unemployed, belonging to lower

socioeconomic status (Kadam, et al, 2017) whereas alcohol dependence group is older, married, working, having a higher income (Mattoo et al, 2013). In preview of the problems at the national level as well as in Manipur state, this study is taken up.

Objectives

1. To compare opioid dependents and alcohol dependents on Depression.
2. To compare opioid dependents and alcohol dependents on Anxiety.
3. To compare opioid dependents and alcohol dependents on Stress.

Hypotheses

1. There will be differences between opioid dependents and alcohol dependents on Depression.
2. There will be differences between opioid dependents and alcohol dependents on Anxiety.
3. There will be differences between opioid dependents and alcohol dependents on Stress.

Method

Sample

Through purposive sampling, a total of 200 participants, 100 each of opioid dependents and alcohol dependents fulfilling the study criteria were selected from different hospitals and rehabilitation centres located in Manipur. To determine the sample size, the following formula is applied:

$$n = [Z(1-\alpha/2)]^2 [P1 (1- P1) + P2 (1- P2)] / d^2$$

Where, N= sample size in each group

$Z(1-\alpha/2)$ = Standardized normal deviate (two tailed); at $\alpha = 0.05$ & 95% CL = 1.96

Prior Information*

P1=1.80 (Opioid dependence prevalence in Manipur)

P2 = 3.8 (Alcohol dependence prevalence in Manipur)

d = desired level of precision=8.5%

* Executive Summary (2019)

When the formula is applied, the number of participants in each group is 96.94 which was rounded off to 100 participants each in the group.

Inclusion criteria:

Male participants aged 18-45, studied at least upto XII std, reads and understands English and/or Manipuri; dependent on Opioid not more than 2 years and gave informed consent were included.

Exclusion criteria:

Unstable medical and psychiatric illness and female gender were exempted from the study.

Measures

DASS (Depression Anxiety Stress Scale)-42: Developed by Lovibond, S.H. & Lovibond, P.F. (1995). The DASS-42 is a self-report scale consisting of 42 items designed to measure depression, anxiety, and stress for people 17 years and above. Subjects must use 4-point severity/frequency scales to indicate the severity level of their experience on each state over the past week. The summation of the scores of the relevant items gives the total score of Anxiety, Depression, and Stress. The Cronbach alpha for anxiety, depression, and stress is 0.82, 0.88, and 0.90 respectively.

Procedure

With prior permission from the concerned authority, various Rehabilitation centers were visited. And through convenient sampling method, a total of 100 opioid dependents and 100 alcohol dependents fulfilling the study criteria were identified from the different hospitals, De-addiction and rehabilitation centers located in Manipur. Then, socio-

demographic profile was collected after taking informed consent from the participants and sequentially DASS (Depression Anxiety

Stress Scale) was also administered. Applied descriptive statistics and t-test and the data was analysed through SPSS software version 25.

Result

Table1. Socio-demographic characteristics of the sample:

	Variable	Opioid dependents	Alcohol Dependents	Chi-square	d.f.	P-value
Age	18-30	57	45	2.88	1	0.99
	31-45	43	55			
Educational level	XII	52	40	3.56	2	0.16
	Graduate	44	52			
	PG	4	8			
Occupation	Student	27	16	5.32	2	0.07
	Self employed	58	59			
	Govt. employee	15	25			
Income	<20,000	18	23	4.38	2	0.11
	20,000-40,000	41	27			
	≥40,000	41	50			
Marital Status	Unmarried	56	44	3.41	1	0.18
	Married	44	56			
Family type	Nuclear	53	60	0.99	1	0.32
	Joint	47	40			

** . P value is significant at the 0.01 level (2-tailed).

*. P value is significant at the 0.05 level (2-tailed).

Table 2. Differences between Opioid dependents and Alcohol dependents with regard to Depression, Anxiety, Stress.

	Variables	Mean ± Std. Deviation	t-value	P value
Depression	17.16±7.46	19.22±6.92	-2.02	0.42
Anxiety	16.22± 5.53	15.41± 7.32	0.88	0.01**
Stress	19.64±7.83	21.56±7.02	-1.83	0.17

** . P value is significant at the 0.01 level (2-tailed).

*. P value is significant at the 0.05 level (2-tailed).

The present study compared Anxiety, Depression, Stress of opioid dependent and alcohol dependent individuals. The sample consisted of a total of 200 participants of 100 male opioid dependent and 100 male alcohol dependent participants aged 18-45. Table 1 shows the socio-demographic characteristics of the sample. There is no significant difference between the two study groups. However, comparatively opioid dependent participants are younger, less educated, low income, unmarried. However, most of the participants in both the group are self-employed, and they live in nuclear family. Finding in table 2 shows no difference between the two groups about depression and stress though there is significant difference found in case of anxiety ($p < 0.01$).

Discussion

There is no significant difference between the two study groups. However, comparatively opioid dependent participants are younger, less educated, low income, unmarried. However, most of the participants in both the group are self-employed, and they live in nuclear family. This finding is in line with many studies where opioid dependents is found to be younger (Thomas et al, 2004), single, unemployed, belonging to lower socioeconomic status (Kadam, et al, 2017) whereas alcohol dependence group is older, married, working, having a higher income (Mattoo et al, 2013).

Finding in table 2 shows no difference between the two groups with regard to depression and stress though there is significant difference found in case of anxiety ($p < 0.01$). The study finding could not established exact link with the previous study findings where depression is found as the common psychiatric comorbidity in opioid addiction and alcohol dependence (Fooladi et. al, 2014; Allah et al, Jan., 2022; Santo et al, 2022; Chhetri et al, 2023). Comparatively, Opioid dependence higher anxiety which is

in link with many previous studies (Fatséas, M., et. al 2010; Fooladi et. al, 2014). However, study finding though not significant shows lesser depression and stress in opioid dependence group which is contradictory to the study findings of Hyman et al, 2009 and Fooladi et. al, 2014.

Conclusion

The study found comparatively similar level of stress and depression though there is significant difference in context of anxiety.

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