

Symptoms of Common Mental Disorders among Women in Manipur: Do Husbands' Dependence Play a Crucial Role?

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According to WHO, common mental disorders such as depression and anxiety are more prevalent among women when compared to men. Among many factors, husband's use of alcohol and other drugs have found to be an important determinant of why women are more prone to mental illness. Manipur has a high prevalence of drug and alcohol abuse and hence the study will highlight the need to understand the unique mental health issues of women; which will ultimately help in developing appropriate intervention strategy. To study the symptoms of depression, anxiety and stress among spouses of alcohol and opioid dependents and a control group comprising of women whose husbands are not dependent on drugs and alcohol. Further, the determinants of depression, anxiety and stress will also be explored. The present study is a cross-sectional study design. DASS-21 was used to collect the data from RIMS and Drug-deaddiction centers under Social Welfare Department, Manipur. A total of 203 women participated in the study. Descriptive statistics, t- test, chi-square and logistic regression analysis was carried out in SPSS software version 25. Results showed that women with alcohol and opioid dependent husbands have significantly higher symptoms of depression, anxiety and stress. Factors such as husband's dependence, educational as well as working status and experience of physical and/or psychological abuse were found to be significantly associated with the symptoms of common mental disorders among women. Husband's dependence to alcohol and opioid is a risk factor for developing mental health disorders among spouses. Hence, the study highlights the importance of developing women- centric intervention module for spouses to help them cope better.

Keywords: Substance abuse, female spouses, depression, anxiety, stress

Each year, depression and anxiety, which are referred to as Common mental disorders or CMDs cost the global economy US\$ 1 trillion, however the average government health expenditure procured on mental health is only less than 2% (WHO, 2019). According to the Global Burden of Disease study (1990-2017), the contribution of mental disorders to the total DALYs in India increased from 2.5% in 1990 to 4.7% in 2017. Depressive disorders contributed the most to the total mental disorders DALYs (33.8%), followed by anxiety disorders (19%) in India (Sagar et al.,2020).

Gender disparity regarding the prevalence of CMDs has also been reported; symptoms of depression and anxiety were 2-3 times more common among women than men and gender was found to be a critical determinant of mental health and mental illness (WHO, 2002). Studies conducted in India have also shown that CMDs are strongly associated with female gender and among many other factors,partner's substance use is one of the significant predictors of why women are more vulnerable to CMDs in India. In addition to this, other relevant factors include the lifetime

stressors that women, in particular face such as maternal roles and nurturing the sick of the family (Patel et al., 2006; Shindaye & Patel, 2010). The reports of Magnitude of Substance use in India (2019) has shown that alcohol is the most common substance used by Indians, followed by opioids. The survey indicated that the prevalence of alcohol dependence and opioid dependence in Manipur is 3.8 % and 1.8% respectively, against the national average of 2.83 and 0.26. Among the states of India, most of the northeastern states including Manipur, have the highest prevalence of opioid use in the general population. In the recently concluded National Mental Health Survey of India, Substance use disorders have been identified as the most common mental disorders (Pradeep et al., 2018; Gautham et al., 2020) and a prevalence rate of 4.7% for Alcohol user disorder was reported for Manipur, which is quite high (National mental health survey, 2016).

The Global burden of Disease Study (conducted across all states of India) and other studies have shown that the prevalence of depressive and anxiety disorders were significantly higher in females than in males (Sagar et al., 2020; Ferrari et al., 2010; Picco et al, 2017). According to the reports of NMHS (2015-16), Manipur had the highest prevalence of lifetime mental morbidity (19.9%) and current mental morbidity (13.9%) against the national average at 13.9% and 10.5% respectively. Further, Manipur is a state with a high prevalence of alcohol and other substance use, particularly opioids. A recent study has reported that the mental health burden of Manipur women is significantly higher among women (Kesharvani & Sarathy, 2020). . Despite these findings, treatment strategies or behavioural intervention specific to women have not been developed and tested so far (Albert, 2015).

Objectives

1. To assess and compare the symptoms of anxiety, depression and stress among spouses of alcohol & opioid dependents and a control group comprising of women whose husbands are not dependent on alcohol, opioid or any other drugs.
2. To identify the determinants of common mental disorders (CMDs) among the study sample.

Hypothesis

1. The symptoms of anxiety, depression and stress will be significantly higher among women whose husband are dependent on alcohol & opioids than those women whose husbands are not dependent on alcohol, opioids or any other drugs.
2. There will be significant determinants associated with symptoms of common mental disorders among the study sample.

Method

Sample

Through purposive and convenient sampling method, a total of 203 women participated in the study, out of which 84 belong to the case group and 119 belong to the control group.

Inclusion criteria for case group

1. Female spouses of men who are pre-diagnosed with alcohol and opioid dependence, fulfilling the criteria of ICD-11
2. Spouses of age group 25-45 with a minimum education of 8th standard.

Exclusion criteria for case group

1. Spouses who have chronic psychiatric, neurological and medical illness

2. Spouses who are dependent on alcohol, opioid and other drugs (except nicotine)

Inclusion criteria for control group:

1. Female spouses of men who are not dependent on alcohol, opioid and other drugs (except nicotine)
2. Spouses of age group 25-45 with a minimum education of 8th standard.

Exclusion criteria for control group:

1. Female spouses who have chronic psychiatric, neurological or medical illness
2. Female spouses of men who have chronic psychiatric, neurological or medical illness

Tools Used

A socio demographic Performa was used to collect information on independent variables such as age, highest education completed, religion, income, use of smokeless tobacco, working status and experience of violence in the form of physical and/or psychological abuse.

DASS-21 (Lovibond & Lovibond, 1996) was used to collect data. The resultant scores were categorised into “Yes” and “No” based on the cut-off scores for each construct. The Depression, Anxiety and Stress Scale - 21 Items (*DASS-21*) is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. The *DASS-21* is based on a dimensional rather than a categorical conception of psychological disorder. The *DASS-21* had good internal reliability (Cronbach’s alpha), and its ordinal alpha demonstrated good internal reliability for all its sub-scales (Ernest et al., 2022).

Procedure

Data for case group were collected from the Department of Psychiatry, Regional

Institute of Medical Sciences- Imphal and from various drug- deaddiction centres in Imphal under the social welfare department, Government of Manipur. Spouses of husbands pre-diagnosed with alcohol and opioid dependence were considered for the study. Husbands were also screened using the ICD-11 criteria of alcohol and opioid dependence. Further, age appropriate women (119) in the control group were selected from Imphal East and Imphal West districts, based on the exclusion and inclusion criteria.

Results

Table 1. Mean and SD of age of women

Women	N	Age	
		Mean	SD
Case	84	35.86	5.85
Control	119	37.83	6.06

It can be observed from table 1 that the mean age for women in the case and control group is 35.86 and 37.83 with the standard deviation of 5.85 and 6.06 respectively.

Table 2 depicts that female spouses of alcohol and opioid dependents have significantly higher symptoms of depression, anxiety and stress when compared to women in the control group. Further, age of women is also significantly related with depression, anxiety and stress being women in the younger age groups is the highest. Women’s education has a significant association with depression ($\chi^2 = 18.95$), however, it has no role in the experience of anxiety and stress among women. Considering religion, women belonging to other religion (Christians and Muslims) have a significant relationship with symptoms of depression and anxiety ($\chi^2 = 10.98$ and $\chi^2 = 8.00$ respectively). Further, smokeless tobacco use is also significantly associated with experience of depressive symptoms among women ($\chi^2 = 5.27$). Working

women is observed to have fewer symptoms of depression and anxiety and the result is statistically significant as evident by chi square values of $\chi^2 = 14.12$ and $\chi^2 = 5.47$ respectively. Further, experience of physical

or emotional abuse or both have been significantly associated with symptoms of depression, anxiety and stress among women ($\chi^2 = 30.26$, $\chi^2 = 27.94$ and $\chi^2 = 34.84$ respectively).

Table 2. Description and results of chi-square test for independent and dependent variables

	Depression				Anxiety				Stress			
	No		Yes		No		Yes		No		Yes	
	N	%	N	%	N	%	N	%	N	%	N	%
Sample												
Case	13	15%	71	85%	43	52%	41	48%	39	46%	45	54%
Control	82	69%	37	32%	84	71%	35	29%	104	87%	15	13%
Age												
25-30 years	5	14%	30	86%	16	46%	19	54%	18	51%	17	49%
31-35 years	23	48%	25	52%	29	60%	19	40%	37	77%	11	33%
36-40 years	18	36%	32	64%	22	56%	28	44%	30	60%	20	40%
41-45 years	49	70%	21	30%	54	77%	16	23%	58	83%	12	17%
Education level												
Till 8 th standard	8	32%	17	68%	15	60%	10	40%	15	60%	10	40%
Secondary	8	25%	24	75%	19	59%	13	41%	19	60%	13	40%
Senior Secondary	10	42%	14	58%	15	62%	9	38%	15	62%	9	38%
Graduate	36	48%	39	52%	47	66%	28	34%	47	63%	28	37%
Post graduate and above	33	70%	14	30%	31	63%	16	37%	31	66%	16	44%
Religion												
Hindu	61	51%	59	49%	69	58%	51	42%	88	73%	32	27%
Sanamahism	29	53%	26	47%	43	78%	12	12%	39	71%	26	29%
Others	5	18%	23	82%	15	54%	13	46%	16	57%	12	43%
Use of SLT												
Yes	25	36%	45	64%	39	56%	31	44%	45	64%	25	36%
No	70	53%	63	47%	88	66%	45	34%	98	74%	35	26%
Working status												
Working	49	64%	28	36%	56	73%	21	27%	59	77%	18	23%

Not working	46	36%	80	64%	71	56%	55	44%	84	67%	42	33%
Experience of violence/abuse	$\chi^2=30.26^*$				$\chi^2=27.94^*$				$\chi^2=34.84^*$			
Yes	11	18%	51	82%	22	35%	40	65%	26	42%	36	58%
No	84	60%	57	40%	105	74%	36	26%	117	83%	24	17%

*p-value less than 0.05 is considered significant

Table 3. Multivariate logistic regression analysis for independent variables and depression, anxiety and stress

Independent variables	Depression			Anxiety			Stress		
	aOR	p-value	[95% CI]	aOR	p-value	[95% CI]	aOR	p-value	[95% CI]
Sample Control	Reference			Reference			Reference		
Case	5.193	.001	2.04-13.222	.74	.522	.294-1.86	4.51	.002	1.769-11.5
Category of age	Reference			Reference			Reference		
25-30	Reference			Reference			Reference		
31-35	.229	.027	.062-.844	.535	.244	.187-1.532	.28	.032	.088-.897
36-40	.543	.357	.149-1.987	.854	.77	.297-2.454	1.091	.879	.356-3.342
41-45	.141	.002	.04-.494	.398	.09	.137-1.153	.531	.281	.168-1.676
Education completed	Reference			Reference			Reference		
8 th standard	Reference			Reference			Reference		
Secondary level	1.677	.501	.372-7.547	.693	.557	.204-2.354	1.255	.728	.349-4.507
Senior secondary	1.531	.617	.289-8.11	.335	.169	.07-1.592	.336	.213	.06-1.868
Graduate	1.208	.786	.308-4.747	.621	.438	.186-2.071	1.267	.722	.345-4.66
Post graduate & above	.711	.666	.151-3.352	.868	.846	.208-3.624	1.125	.888	.219-5.769
Religion	Reference			Reference			Reference		
Hindu	Reference			Reference			Reference		
Sanamahism	.55	.176	.231-1.307	.193	.001	.077-.488	.691	.44	.27-1.765
Others	2.696	.153	.691-10.519	.739	.592	.244-2.233	1.099	.871	.353-3.422
Working status	Reference			Reference			Reference		
Working	Reference			Reference			Reference		
Not working	1.463	.376	.63-3.396	1.843	.153	.797-4.262	.9	.829	.346-2.34
Experience of violence	Reference			Reference			Reference		
Yes	Reference			Reference			Reference		
No	.343	.029	.132-.894	.122	0	.048-.308	.209	.001	.086-.509

Note: aOR=Adjusted odds ratio, CI=Credible Interval

Table 3 shows the results of multivariate logistic regression analysis for independent variables and symptoms of depression, anxiety and stress among women. Female spouses of alcohol and opioid dependents are 5 times and 4 times more likely to experience depression and stress respectively, when compared to women whose husbands are not dependent on alcohol or any other drugs.

For depression, women in the higher age groups experience fewer symptoms as compared to their younger counterparts. The risks of having depressive symptoms is also 2 times higher among women who is educated till secondary and senior secondary level and women with educational level of post graduate and above have 29% lesser chances of having depression. Further, the risk of having depression is increased by 3 times among Muslim women and decreased

by 45% among women who follows Sanamahism. The odds of having depression is also increased by 46% among non-working women when compared to working women. Women who do not experience violence have 66% less chances of experiencing depressive symptoms.

Considering anxiety, the risks decreased by 60% for women belonging to the highest age group when compared to their younger counterparts. Symptoms of anxiety are also higher among women with education of 8th standard when compared to women with higher educational status. The risks of experiencing anxiety is also increased by 84% among non-working women when compared to working women. Women without history of any violence have 88% and 80% fewer chance of experiencing symptoms for anxiety and stress respectively.

Table 4. t-test for depression, anxiety and stress for women in the case and control group

	Women	N	Mean	Std. Dev.	t-test		
					t	df	p-value
Depression	Case	84	19.84	9.37	11.28	201	0.0000*
	Control	119	6.35	7.60			
Anxiety	Case	84	8.59	8.29	2.71	201	0.0072*
	Control	119	5.71	6.79			
Stress	Case	84	15.21	8.87	7.23	201	0.0000*
	Control	119	7.47	3.36			

*p-value less than 0.05 is considered significant

From table 4, it is observed that spouses of alcohol and opioid dependents experienced significantly higher symptoms of depression, anxiety and stress when compared to women in the control group. The mean scores for depression (19.84), anxiety (8.29) and stress (8.87) is higher for women in the case group and the result is statistically significant as evident by p-values of 0.0000, 0.0072 and 0.0000 respectively.

Discussion

Results from chi square analysis, t-test and multiple logistic regression shows that husband's dependence to alcohol and opioid is a risk factor for having depression, anxiety and stress among women and our findings in consistent with other studies conducted in this area. Additionally, these studies report that women with alcoholic and drug abuse

partners also experience other psycho- social challenges such as stigma, humiliation and decreased quality of life (Di Sarno et al., 2021; Birkeland et al., 2018). All these factors can significantly impair the physical as well as mental well- being of women, which will ultimately increase the mental health burden. However, majority of these studies are cross-sectional in nature and hence it is unsafe to establish a temporal relationship between husband's alcohol and opioid use and experience of symptoms of CMDs. Nevertheless, the findings highlight the need to address the mental health issues of women with alcoholic or drug abuse husbands; this will ultimately help in lowering the mental health burden of women in a state like Manipur.

Considering the determinants of symptoms of CMDs, women belonging to younger age groups experience higher symptoms of depression ($\chi^2 = 32.36$), anxiety ($\chi^2 = 11.60$) and stress ($\chi^2 = 14.89$). The results of also shows that women belonging to the highest age group (41-45) have 86%, 60% and 47% fewer chance of experiencing depression, anxiety and stress respectively. Women of younger age may have additional factors which can lead to poor mental health outcomes, hence, there is a need to conduct more in-depth studies to explore the possible factors unique to women in this age group.

Educational status is also found to be significantly associated with symptoms of depression ($\chi^2 = 18.95$) and women with lower educational status experience higher symptoms. Also, women with highest education status have 29% and 13% lesser chance of having depression and anxiety. This shows that women's educational status might have a protective role in this regard.

Further, women belonging to other religion (Muslim and Christian) experience significantly higher symptoms of depression

and anxiety ($\chi^2 = 10.98$ and $\chi^2 = 8.00$ respectively). Women in the other religion also have 3 times higher odds of having depression. However, this findings should be taken with caution as majority of women in this category belong to the case group.

Further, non- working women have been reported to experience higher symptoms of depression and anxiety and the result is statistically significant as evident by $\chi^2 = 14.12$ and $\chi^2 = 5.47$ respectively. Also, the odds of having depression and anxiety is increased by 46% and 84% respectively among non-working women. This findings suggests that working environment and financial independence may be important protective factors against women experiencing symptoms of CMDs. Experience of physical or emotional abuse or both have also been significantly linked to depression ($\chi^2 = 30.26$), anxiety ($\chi^2 = 27.94$) and stress ($\chi^2 = 34.84$) among women. Women with no history of violence have 66%, 88% and 80% fewer chances of experiencing symptoms of CMDs. This is particularly important as domestic violence is a serious violation of human rights which is also linked to not only mental health issues but also to poorer physical as well as reproductive health outcomes among women (Potter et al., 2021; Devries et al., 2011; Pallito et al, 2013).

Hence, the findings of our study highlight the need to address the unique psycho- social issues of women while developing effective behavioural intervention module.

Conclusion

Husband's alcohol and opioid dependence is a risk factor for developing CMDs such as depression, anxiety and stress among women. Our findings is particularly important for a state like Manipur where drug and alcohol use rate has remained exceptionally high over many decades. Further, the mental health burden of women is also significantly higher among

women in Manipur. Hence, it is imperative to develop a women-centric behavioural intervention, taking into consideration the unique issues face by women. Women who take up the roles as caretakers for alcohol and opioid dependent husbands in hospitals, clinics and addiction centres should be considered providing behavioural intervention to help them cope better with the psychological distress. Further, efforts should also be made at grass root level to provide awareness, campaigns and psycho-education on the early signs and symptoms of common mental disorders.

Our study may not have policy implications owing to the small sample size, however, the findings highlight the need to conduct more extensive studies covering all the remote districts of Manipur. A qualitative enquiry would yield deeper insights into the issues and challenges experience by women.

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