

## Assessment of Anxiety in Wives of Patients with Alcohol-Related Disorders

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### ABSTRACT

**Background:** The growing evidence shows that harmful use of alcohol adversely affects not only individuals but also families. This negatively impacted the economic, physical, psychological, and social functioning of the family. There is concern about the effect of husbands' alcohol-related disorders on wives, given the intimate nature of their relationship, who are more vulnerable to having common psychological disorders. **Aim:** The main objective of the study was to assess the levels of anxiety and the severity of alcohol dependence. **Methods:** A cross-sectional study design and a purposive sampling method were used. The sample consisted of 110 wives and their husbands who fulfilled the inclusion and exclusion criteria. Respondents were administered a semi-structured questionnaire for collecting socio-demographic data and screened for anxiety using DASS-42 for the wife and SADQ-C for assessing the severity of alcohol dependence for the husband. **Result:** Statistical analysis such as the Chi-square test and frequency were used. The research findings showed that 35% had mild anxiety, 54% had moderate anxiety, and 11% had severe anxiety. The prevalence of anxiety was 65% among wives. There was a significant association between the severity of the husbands' alcohol dependence and the levels of anxiety among their wives. However, levels of anxiety had an insignificant relationship with the duration of husbands' alcohol use. **Conclusion:** These results have crucial implications for gradually raising awareness of the anxiety that wives experience in the context of alcohol-related disorders as well as an effort to protect and provide appropriate assessment and intervention.

**Key Words:** *Wives, Alcohol-related Disorders, Anxiety, and Prevalence*

### INTRODUCTION

Substance-related disorders are family diseases. Wives of partner alcohol dependence are exposed constantly to physical and verbal abuse. Husband drinking problems had adverse consequences, including financial hardship, social stigma, interpersonal conflicts, and low marital satisfaction in spouses. Distressing life events may trigger negative mental health among these victimized women. The spouse's anxiety is associated with the husband's harmful consumption of alcohol, as suggested in literature. According to the Global Status Report on Alcohol and Health, the harmful use of alcohol resulted in more than 3 million deaths worldwide and 132.6 million disability-adjusted life years (DALYs) in 2016 (World Health Organization, 2018). The harmful use of alcohol has consequences for violence, injuries, mental health problems, and diseases like cancer and stroke that suffer their families, communities, and social and economic burdens in societies. Alcohol is a psychoactive substance with dependence-producing properties that has been widely used in many cultures for centuries. Ambekar et al. (2019) national survey on the extent, trends, and pattern of substance uses in India reports that over 19% use alcohol in a dependent manner.

A problematic pattern of alcohol consumption is often associated with partner violence, significant impairment in social and occupational relationships, and interpersonal conflict in the family environment. It is a matter of concern that partners have alcohol dependence syndrome and psychiatric morbidity in their spouses. A study

conducted by Begam et al. (2015) showed a high level of anxiety among wives of alcohol-dependent husbands with low marital satisfaction. Similar research findings showed higher anxiety and depression in spouses of alcohol-dependent husbands as compared with those who were not alcohol-dependent.

In India, wives are the primary caregivers of their partners, and there is a sense of acceptance of the husband's abusive behavior and a willingness to bear the burden of the endless somatic and psychosocial problems (Shah et al. 2017). Sharon's (2014) study reveals that husbands' problematic drinking generated problems with neighbors, relatives, and at work. Wives of alcohol dependence have a low level of perceived quality of life compared to wives of non-alcohol dependence, who have a high level of perceived quality of life. It was evident that a major proportion of wives have psychological morbidities such as anxiety, which have clear links to the severity of alcohol dependence in husbands (Mammen et al., 2015).

Kishor et al. (2013) found that husbands' adverse consequences of being alcohol dependent are often associated with marital dissatisfaction and psychiatric morbidity. The spouse of the husband has alcohol-related disorders prevalent in psychiatric disorders, commonly being diagnosed with anxiety disorder. Marital dissatisfaction was significantly associated with husbands' severity of alcohol dependence. Also, increased duration of alcohol consumption was associated with a higher severity of alcohol dependence. Alcohol-related disorders pose serious threats to the healthy functioning of

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the family structure in a multitude of ways (Ghosh et al., 2017). The prevalence of psychiatric morbidity among wives of partners with alcohol-related disorders was 66.3%, mostly depression and anxiety disorders.

In India, spouses play a vital role in the treatment (Dandu et al., 2017). Wives of husbands who are alcohol dependent reported a poorer pattern of family interaction in the domains of social support, responsibility, communication, etc. Thus, understanding the characteristics of the drinker and their negative consequences may help to clarify the development and prevention of alcohol-related problems (Singh et al., 2009). Depression and anxiety are highly common among spouses of husbands' alcohol use disorders when compared with wives of men's non-alcohol use disorders. The social consequences of partners harmful consumption of alcohol and increased violence can lead to decreased marital satisfaction (Gandhi et al., 2017).

The adverse impact of substance uses on families, usually on female caregivers, is immense. The burden on women due to substance-abusing family members can be related to problems occurring when the user is under intoxication, behavioral consequences such as domestic violence and high-risk behaviors, social consequences like stigma and isolation, legal consequences such as crime and arrests, and emotional breakdown due to a lack of support from the spouse (Pujam et al., 2017). Considering the wide study gap, especially in the north-eastern state of Manipur, this is one of the few attempts to address a piece of scientific approach to the most vulnerable and underserved populations and assess and document the anxiety in wives of male patients with alcohol-related disorders.

### Objectives of the Study

1. To estimate the frequency and pattern of anxiety among wives of patients with alcohol-related disorders.
2. To find out the association between socio-demographic variables and level of anxiety among wives of alcoholic patients.
3. To evaluate the relationship between severity of husbands' alcohol dependence and anxiety among wives.
4. To examine the duration of husbands' alcohol use and level of anxiety among wives.

### METHODOLOGY

The present study was a cross-sectional study. It was conducted in the Department of Clinical Psychology and Psychiatry, Regional Institute of Medical Sciences (RIMS) Imphal, from July 2019 to July 2020. Participants were recruited from the outpatient as well as inpatient registry of these departments. The samples of the study

consisted of 110 (one hundred and ten) wives as well as their husbands diagnosed with alcohol-related disorders who fulfilled the inclusion and exclusion criteria. This study had only begun after obtaining approval from the Research Ethics Board of RIMS, Imphal.

Before conducting the study, necessary permission was obtained from the concerned authority, and they were thoroughly informed about the nature of the study, which was mainly to evaluate the levels of anxiety in the wives of patients with alcohol-related disorders. Then, the researcher approached the particular participants for data collection. Informed consent was obtained from the participants, and they were assured that their confidentiality would be maintained. After the participants had given their consent, they were administered a socio-demographic data sheet and a depression, anxiety, and stress scale. They were also informed that it might take approximately 30 minutes to conduct the test.

### Sample Size Calculation

The sample size was determined using the formula  $n = Z^2 P (1-P)/d^2$

Where, n = sample size,

Z = Z statistic for a level of confidence

P = expected prevalence or proportion (prior information is 65% = 0.65)

d = precision (in proportion of one; if 9%, d = 0.09)

Assumptions, at 95% confidence limit, Z=1.96

Sample size  $n = Z^2 P (1-P)/d^2$

$$= 1.96^2 \times 0.65 (1-0.65)/0.09^2$$

$$= 1.96^2 \times 0.2275/0.0081$$

$$= 0.8739/0.0081$$

$$= 107.89$$

$$= 110 \text{ (rounded off to nearest 10)}$$

### Sampling Method

For the present study, the purposive sampling method was used. Every wife of a husband diagnosed with alcohol-related disorders from the inpatient as well as the outpatient registry at the Department of Psychiatry and Clinical Psychology who fulfils both the inclusion and exclusion criteria was approached until the required sample size was reached. The goal of these designs is to gather the necessary data to draw conclusions. It provides researchers with the justification to generalize from their sample. The flexibility of purposive sampling allows researchers to save time and money while collecting data.

**Inclusion Criteria**

- 1) Wives of adult patients attending the Department of Psychiatry and Clinical Psychology who diagnosed with alcohol-related disorders according to the International Classification of Diseases-10 (ICD-10).
- 2) Age: 18 years above
- 3) Participants consented to the study.

**Exclusion Criteria**

The exclusion criteria were chronic medical conditions or severe psychiatric disorders in the patient and their spouses which were not related to alcohol ingestion and as well as their spouses not consenting for the study.

**The following tools were used to collect data:**

**1. Socio-Demographic Datasheet**

It consisted of information including the age, gender, educational status, occupational status, and other demographic information of the wives of patients with alcohol-related disorders.

**2. The Depression Anxiety Stress Scale (DASS-42)**

The depression-anxiety stress scale was developed by Lovibond & Lovibond (1995). The DASS assesses negative emotional symptoms by using a four-point Likert scale, ranging from 0 to 3. It has three subscales and contains 42 items, divided into 14 depression, 14 anxiety, and 14 stress items with similar content. These subscales are scored by adding the total item scores. The reliability of the scale revealed excellent Cronbach's alpha values of 0.90 for depression, 0.90 for anxiety, and 0.87 for stress domains. The scale showed good validity.

**3. The severity of Alcohol Dependence Questionnaire-Community (SADQ-C)**

The Severity of Alcohol Dependence Questionnaire was developed by Stockwell et al. (1994). SADQ-C assesses the degree of alcohol dependence. It has been validated in inpatient, outpatient, and community settings. Four-point Likert scale: almost never – 0, sometimes -1 Often -2, nearly always -3. An interpretation of a score of 31 or higher indicates "severe alcohol dependence", a score of 16–30 indicates "moderate dependence", and a score below 16 usually indicates only a mild physical dependency. The reliability of the scale indicated high internal reliability (Cronbach's alpha of 0.98).

**Statistical Analyses**

The data was being sorted, coded, and entered into the computer using Statistical Package for Social Sciences (SPSS) software version 25. On the basis of the objectives of the study, the collected data was interpreted and analyzed. The data was presented using frequency tables. Pearson's chi-square test was computed to see an

association between categorical data from the contingency table. In statistical tests, the significance level was 0.05.

**RESULTS**

The present study was based on the primary data of 110 wives of patients with alcohol-related disorders attending the Department of Clinical Psychology and Psychiatry, RIMS, Imphal. There were four sections in the present study, viz.,

**Section 1:** Estimates the frequency and pattern of anxiety of the participants.

**Section 2:** Studies the relationship between socio-demographic variables and wives' anxiety.

**Section 3:** Studies the relationship between the severity of alcohol dependence and wives' anxiety. **Section 4** examines the relationship between the duration of husbands' alcohol use and wives' anxiety.

**Table 1:** Showing frequency and percentage on levels of anxiety of the study samples

Levels of anxiety	Frequency	Percentage
Mild	39	35
Moderate	59	54
Severe	12	11
<b>Total</b>	<b>110</b>	<b>100</b>

Table 1 presents the frequencies, percentages, and patterns of anxiety among 110 respondents: 39 (35%) mild, 59 (54%) moderate, and 12 (11%) severe levels of anxiety in wives.

**Table 2:** Socio-demographic variables and levels of anxiety of the study samples

Socio-demographic variables	Levels of anxiety			
	Mild	Moderate	Severe	Total
<b>Age of spouse of alcoholic</b>				
Younger wives (18-45)	25 (64%)	25 (42%)	8 (67%)	58 (53%)
Older wives (above 45)	14 (36%)	34 (58%)	4 (33%)	52 (47%)
<b>Total</b>	<b>39 (100%)</b>	<b>59 (100%)</b>	<b>12 (100%)</b>	<b>110 (100%)</b>
Chi-square = 5.498; d.f. = 2; p-value = 0.064; Remark = Insignificant				
<b>Educational Qualification</b>				
Primary	16(41%)	21(36%)	5(42%)	42(38%)
Secondary	4(10%)	13(22%)	3(25%)	20(18%)
Higher secondary	12(31%)	15(25%)	3(25%)	30(27%)
Graduation	7(18%)	10(17%)	1(8%)	18(17%)
<b>Total</b>	<b>39 (100%)</b>	<b>59 (100%)</b>	<b>12 (100%)</b>	<b>110 (100%)</b>
Chi-square = 3.177; d.f. = 6; p-value = 0.786; Remark = Insignificant				
<b>Types of family</b>				
Nuclear	26(67%)	36(61%)	8(67%)	70(64%)
Joint	13(33%)	23(39%)	4(33%)	40(36%)
<b>Total</b>	<b>39 (100%)</b>	<b>59 (100%)</b>	<b>12 (100%)</b>	<b>110 (100%)</b>
Chi-square = 0.377; d.f. = 2; p-value = 0.828; Remark = Insignificant				
<b>Religion</b>				
Hindu	30 (77%)	46 (78%)	8 (67%)	84 (76%)
Christian	9 (23%)	13 (22%)	4 (33%)	26 (24%)
<b>Total</b>	<b>39 (100%)</b>	<b>59 (100%)</b>	<b>12 (100%)</b>	<b>110 (100%)</b>
Chi-square = 0.716; d.f. = 2; p-value = 0.699; Remark = Insignificant				
<b>Place of residence</b>				
Urban	12 (31%)	16 (27%)	3 (25%)	31 (28%)
Rural	27 (69%)	43 (73%)	9 (75%)	79 (72%)
<b>Total</b>	<b>39 (100%)</b>	<b>59 (100%)</b>	<b>12 (100%)</b>	<b>110 (100%)</b>
Chi-square = 0.222; d.f. = 2; p-value = 0.895; Remark = Insignificant				

Socio-demographic variables	Levels of anxiety			Total
	Mild	Moderate	Severe	
<b>Monthly family income</b>				
Rs. 10000 to 300000	25 (64%)	36 (61%)	9 (75%)	70 (64%)
Above Rs. 30000	9 (23%)	11 (19%)	3 (25%)	23 (21%)
Below Rs. 10000	5 (13%)	12 (20%)	0 (0%)	17 (15%)
<b>Total</b>	<b>39 (100%)</b>	<b>59 (100%)</b>	<b>12 (100%)</b>	<b>110 (100%)</b>
Chi-square = 3.577; d.f. = 2; p-value = 0.466; Remark = Insignificant				
<b>Occupation</b>				
Government employee	5(13%)	6(10%)	1(8%)	12(11%)
Business	10(25%)	16(27%)	1(8%)	27(25%)
Unemployed	7(18%)	19(32%)	3(26%)	29(26%)
Unskilled work	17(44%)	18(31%)	7(58%)	42(38%)
<b>Total</b>	<b>39 (100%)</b>	<b>59 (100%)</b>	<b>12 (100%)</b>	<b>110 (100%)</b>
Chi-square = 6.000; d.f. = 6; p-value = 0.423; Remark = Insignificant				

Table 2 displays the relationship between socio-demographic variables and the levels of anxiety among wives of alcoholic patients attending the department of psychiatry at RIMS, Imphal. The results revealed that none of the selected socio-demographic variables, such as age of spouse of an alcoholic (p-value = 0.064), educational qualification (p-value = 0.786), types of family (p-value = 0.828), religion (p-value = 0.699), place of residence (p-value = 0.895), monthly family income (p-value = 0.466), and occupation (p-value = 0.423), were found to have a significant relationship with respect to levels of anxiety.

**Table 3:** The severity of alcohol dependence and anxiety of the study sample

The severity of alcohol dependence	Levels of anxiety			
	Mild	Moderate	Severe	Total
Mild	21 (54%)	3 (5%)	1(8%)	25 (23%)
Moderate	16 (41%)	52 (88%)	1(8%)	69 (62%)
Severe	2 (5%)	4 (7%)	10(84%)	16 (15%)
<b>Total</b>	<b>39 (100%)</b>	<b>59 (100%)</b>	<b>12 (100%)</b>	<b>110 (100%)</b>

Chi-square = 84.313; d.f. = 4; p-value = 0.000; Remark = Significant

This table 3 showed that the percentage and levels of anxiety among wives of mildly alcohol dependent husbands were 23% mild, 62% moderate, and 16% severe, and for moderately alcohol dependent husbands, 41% mild anxiety, 88% moderate anxiety, and 8% severe anxiety, respectively, and for severely alcohol dependent husbands, 5% mild, 7% moderate, and 84% severe level of anxiety, respectively. The differences in percentage were maximal, and when a statistically applied chi-square test was found, there was a significant relationship between the severity of alcohol dependence and levels of anxiety in wives, as evident by a p-value of 0.000.

**Table 4:** Duration of alcohol use and anxiety of the study samples

Duration of alcohol use	Levels of anxiety			
	Mild	Moderate	Severe	Total
2 to 10 years	28(72%)	37 (63%)	6 (50%)	71 (65%)
11 to 20 years	6 (15%)	12 (20%)	4 (33%)	22 (20%)
20 & above	5 (13%)	10 (17%)	2 (17%)	17 (15%)
<b>Total</b>	<b>39 (100%)</b>	<b>59 (100%)</b>	<b>12 (100%)</b>	<b>110 (100%)</b>

Chi-square = 2.499; d.f. = 4; p-value = 0.645; Remark = Insignificant

This table 4 showed that the percentage and level of anxiety in wives for the husbands’ 2 to 10 years of alcohol use were 72% mild, 63% moderate, and 50% severe levels, respectively; for 11 to 20 years of alcohol use, 15% mild, 20% moderate, and 33% severe levels, respectively; and for 20 years and above of alcohol use, 13% mild, 17% moderate, and 17% severe levels, respectively. The differences in percentage were minimal, and when a statistically applied chi-square test was applied, it was found to be an insignificant relationship between duration of alcohol use and levels of anxiety, as manifested by a p-value of 0.645.

**DISCUSSION**

A current study suggests that wives whose partners suffer from alcohol-related problems have a significant prevalence of anxiety. These findings, which agreed with those of earlier investigations, showed that the prevalence of psychiatric morbidity was 63.33% among spouses of alcohol-dependent men (Bagul et al., 2015). Similarly, Mammen et al. (2015) study found that anxiety and stress-related disorders comprised about 36% of the total psychiatric morbidity, and wives of men with alcohol use disorder show significantly higher rates of both depression and anxiety when compared with wives of men with non-alcohol use disorder (Rakesh et al., 2017). In addition, another comparative study by Shah et al. (2017) found that anxiety was higher in wives of alcohol-dependent men as compared to wives without alcohol dependence.

Thasnim et al. (2015) found that 65% of spouses had a psychiatric disorder (mood and anxiety disorders). In the present study, there were no significant relationships found between socio-demographic factors such as age, education, occupation, religion, types of family, place of residence, monthly income, number of children, years of marriage, age of initiation of alcohol use, and wife battering due to alcohol intoxication and levels of anxiety among wives of patients with alcohol-related disorders. This finding was contradicted by an earlier study that demonstrated that husband drug dependence and lower monthly income were common predictors of anxiety among wives of drug dependents in Iran (Noori et al., 2015). The present findings showed that there was a significant relationship between the severity of alcohol dependence among husbands and the level of anxiety among wives. It is also revealed that the higher the severity of husbands’ alcohol dependence, the higher the levels of anxiety their wives experience. These findings concord with earlier research (Ghosh et al., 2017). The present findings revealed that there were no significant relationships between the duration of husbands’ alcohol use and the levels of anxiety in their wives.

## CONCLUSIONS

The results of this study indicated the importance of common mental health problems, especially anxiety, for spouses whose husbands have alcohol-related disorders. The research findings provide evidence that anxiety is more prevalent in the wives of patients with alcohol-related disorders. It is also revealed that the higher the severity of husbands' alcohol dependence, the higher the levels of anxiety their wives experience.

## Limitations and Implications

One of the study's major shortcomings was that it used a sample that may not be representative of the broader community because it was limited to female spouses who were the primary caregivers for male inpatients under going treatment at a tertiary care hospital.

The present finding would serve to incrementally attempt to bring awareness of anxiety faced by the wives to protect and promote and pressing the need to provide appropriate assessment and intervention is crucial.

## Conflicts of interest

The authors declared no conflict of interest.

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