

Anxiety and its Determinants among Wives of Alcohol Dependence Patients in Pondicherry

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Abstract

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Background: Alcohol consumption has been constantly increasing around the world including India. Alcohol use affects individual, family, society and country in many aspects. Spouses of alcoholics suffer in all dimensions of health and are usually ignored. *Aims:* The present study was designed to study the anxious status of wives of alcoholics, their socio-demographic details and alcohol use disorder among husbands; and to find out the association between these factors with anxiety status of wives of alcoholics. *Methods:* This is a hospital based cross sectional study conducted among the wives of the husbands of alcoholics attending the deaddiction centre of Department of Psychiatry at a tertiary care teaching hospital. With help of structured proforma, socio-demographic details of the subjects were collected. Anxiety status of wives and alcohol use disorder among husbands were collected using HAMA-A and AUDIT questionnaire respectively. EpiInfo and SPSS software were used for data entry and data analysis respectively. Chi-square test and Pearson's correlation were used. *Results:* Most of the study subjects belong to 35-44 years of age (50%), studied up to middle school (58.8%), employed (70%), belong to lower middle SES (62.5%), Hindus (87.5%) and lived in nuclear family (81.3%). AUDIT showed 47.5% of their husbands were at very high risk for alcohol use disorder. Based on HAMA scoring tool, we found that 13.8% of the wives had severe anxiety disorder. Physical abuse, duration of alcohol consumption, and increased risk to develop alcohol disorder among husband were significant determinants of anxiety disorder among wives. *Conclusions:* Identified risk factors can be used to screen the wives of alcoholic husbands to initiate intervention services like resilience development strategy along with the treatment of husbands.

Keywords: Anxiety; Alcohol Dependence; Spouses; Screening.

Introduction

Alcoholism is a major public health problem around the globe including developing countries like India. It is no more a risk behaviour but a

disease in itself. In recent years, rates of excessive alcohol use, and alcohol related morbidity and mortality have risen sharply in many countries for various reasons [1]. Alcohol can have adverse effects not only on the individual's physical and mental health but also social wellbeing of the individual,

family and society [2]. The terms 'addiction' and 'habituation' are replaced with the term 'dependence' by World Health Organization Expert Committee [3]. This is a general term that can be used with reference to the whole range of psychoactive drugs or with specific reference to a particular drug or class of drugs (e.g., alcohol dependence) [4].

Alcohol dependence apart from affecting physical health of the individual, by reducing his working efficiency and ability to support himself and his family on the long run gives rise to family problems [5]. The physical health, economic status, emotional well-being of family members is affected. It impairs the cognitive ability and leads to clouding of consciousness among the chronic alcoholics those results in the emergence of social pathologies in the community, thereby affecting members of the society too. Because of the intimate nature of relationship between alcoholic patients and their spouses, the family responsibility and cultural norm that prevails in the society, the problems associated with alcoholics are centred primarily within the family and the maximum impact is seen on the spouse [6]. Spouses also play an important role in following the treatment protocol for the concerned alcoholics. For this reason it is very important to study the mental makeup especially their anxious status associated with husband's alcohol dependence. Identification of risk factors for the development of anxious state among the wives of chronic alcoholics facilitates us to design intervention measures that identifies and protect them before they develop major psychiatric morbidity.

Spouses of alcoholics are subjected to very high rate of domestic violence compared to non-alcoholics which can be physical, verbal or sexual. The other issues faced by them are low marital satisfaction, maladaptive coping skills, lack of social support, economic burden and social stigma [7]. Most of the impact of chronic alcoholism is on the spouses, yet only little attention has been given to them so far. Even though, a significant number of cases have already been studied very few have been brought their findings to public awareness. There were many studies on the impact of alcohol consumption among the consumer but studies on the impact of mental health of their spouse are less. Hence the present study was designed to describe the socio-demographic details and the anxiety status of wives of alcoholics. To find out the association between various anxiety status of wives of alcoholics and the socio-demographic details of spouses and alcohol dependent status of their husbands and to identify the correlation of alcohol use disorder score of patients with anxiety score of their wives.

Materials and Methods

Study Setting and Design

This study was carried out in a tertiary care teaching hospital situated in rural Puducherry. Puducherry is a union territory located in coastal area of South India. The college is found in the Villupuram and Puducherry highway, hence is visited predominantly by the patients from Tamil Nadu and Puducherry. It was a hospital based cross sectional study. The study was carried out for a period of 18 months from January 2014 to June 2015.

Study Subjects

The study subjects were the non-alcoholic spouses of known alcohol dependent patients attending the de-addiction clinic of the Department of Psychiatry. The respondents of the age group 20-49 years were included in the study. They were selected only when their husbands fulfilled the criteria for alcohol dependence according to ICD 10 like urge, craving, tolerance loss of control of intake of substance, neglect of alternate pleasure, drinking despite harmful consequences etc. Subjects with any diagnosed psychiatric disorder, diabetes mellitus, hypertension, renal disease and cardiovascular disease were excluded. Pregnant women were also excluded from the study.

Sample Size and Sampling

Sample size was calculated to be 160 using the software OpenEpi version 3.0, taking into consideration the prevalence of anxiety disorder among the wives of alcoholics as 15% based on a previous study [8], with 5.5% absolute precision, 95% confidence interval and 80% power. Systematic random sampling method was adopted to select the study subjects randomly. Wife of every 4th alcoholic attending the de-addiction clinic was chosen. Following this sampling technique, we were able to complete interviews with the predetermined number of subjects within one year time period.

Study Procedure and Study Tool

The study was carried out after obtaining Institute Ethical Committee clearance (IEC Code No: 93/2013). Written informed consent was obtained from all participants before collecting information on the study variables. The participants were interviewed using a structured questionnaire. The information on socio-demographic features like age, education,

occupation, socio-economic status (SES), religion, family size, type of family, history of physical abuse were collected using the questionnaire. Anxiety status of the spouses was measured using Hamilton Anxiety Rating Scale (HAM-A) [9]. Alcohol dependence of the patients was measured by Alcohol Use Disorders Identification Test (AUDIT) scale [10]. Ethical principles were adhered throughout the study.

The HAM-A is a widely used and well-validated tool for measuring the severity of a patient’s anxiety. It is a rating scale developed to quantify the severity of anxiety symptomatology and is based on 14 parameters, including anxious mood, tension, fears, insomnia, somatic complaints and behaviour at the time of interview. The interview took 15-20 minutes to administer the tool among spouses. Each item is simply given a 5-point score, from zero (not present) to four (severe). The score ranges from zero to 56. Based on the total score obtained, anxiety status was classified into four categories namely mild (<17), mild to moderate (18 to 24), moderate to severe (25 to 30) and severe (31 to 56). For the purpose of analysis mild and mild to moderate categories were clubbed together.

Statistical Analysis

Data were entered in EpiInfo software version 7.2.2.6 and analysed using software SPSS version

24. Categorical study variables were summarized in frequency and percentages. Factors associated with anxiety disorder among women whose husbands were alcoholic dependents were identified using Chi-square test. Pearson correlation was done to find out the correlation between AUDIT and HAMA score. All tests were two tailed and the p value <0.05 was considered significant.

Results

Half of the study participants were in the age group of 35 to 44 years, 33.8% of them were in the age of 24 to 44 years and the rest 16.2% in the age of 45 to 50 years. Only 13.8% of them were illiterate and majority of them were studied up to middle school. Majority of them were employed and only 30% of them were home maker. Nobody of them was in the upper SES class and 62.5% of them belong to lower middle SES group. Most of them belong to nuclear family (81.3%) and 48.8% of them had maximum two children in their family, the rest had more than 2 children. The socio-demographic details of the study subjects were given in Table 1. Family history of alcoholism was given by 36.9% of them and 52.5% of them had been physically abused by their husbands. Majority (45%) of their husbands had been consuming alcohol for more than 20 years and 12.5% of them were consuming for 5 to 9 years. Again majority (47.5%)

Table 1: Socio-demographic details of the study participants, N=160

Sl. No.	Features	n (%)
1	Age category in years	
	24-34	54 (33.8)
	35-44	80 (50.0)
2	45-50	26 (16.2)
	Education	
	Illiterate	22 (13.8)
3	Up to middle school	94 (58.8)
	Middle school and above	44 (27.5)
4	Occupation	
	Home maker	48 (30)
5	Employed	112 (70)
	Socio-economic status	
	Upper-middle	10 (6.3)
	Middle	38 (23.8)
6	Lower-middle	100 (62.5)
	Lower	12 (7.5)
	Religion	
7	Hindu	140 (87.5)
	Christian	14 (8.8)
	Muslim	6 (3.8)
8	Type of family	
	Nuclear	130 (81.3)
9	Joint	30 (18.8)
	Number of children in family	
	1-2	78 (48.8)
	>2	82 (51.3)

of them had very high risk for alcohol related disorder based on AUDIT score. Among the wives of husbands on chronic alcoholism, 22 (13.8%) of them had severe anxiety disorder, 58 (36.3%) of them had moderate to severe anxiety and 80 (50%) of them had mild to

moderate anxiety (Table 2).

The results of association between socio-demographic factors of study subjects and AUDIT score of their husbands with their anxiety status was given in Table 3. Increasing age of wives was

Table 2: Details of alcohol consumption among husband and anxiety status of study subjects, N=160

Sl. No.	Features	n (%)
1	Family history of alcoholism	59 (36.9)
2	Physical abuse	84 (52.5)
3	Duration of alcohol consumption#	
	5-9	20 (12.5)
	10-19	68 (42.5)
	≥ 20	72 (45.0)
4	Risk for alcohol use disorder@	
	Moderate risk	26 (16.3)
	High risk	58 (36.3)
	Very high risk	76 (47.5)
5	Anxiety status*	
	Mild to moderate	80 (50)
	Moderate to severe	58 (36.3)
	Very severe	22 (13.8)

Note:#,@-details pertaining to husbands of study subjects, @-based on AUDIT score, * based on HAMA score

Table 3: Association between anxiety among subjects and other study parameters, N=160

Sl. No.	Characteristics	Anxiety status based on HAMA score, n (%)			p value#
		Mild to Moderate	Moderate to Severe	Very Severe	
1	Age category in years				
	24-34	26 (48.1)	18 (33.3)	10 (18.5)	0.22
	35-44	42 (52.5)	32 (40.0)	6 (7.5)	
	45-50	12 (46.2)	8 (30.8)	6 (23.1)	
2	Education				
	Illiterate	8 (36.4)	8 (36.4)	6 (27.3)	0.10
	Up to middle school	54 (57.4)	30 (31.9)	10 (10.6)	
	Middle school and above	18 (40.9)	20 (45.5)	6 (13.6)	
3	Occupation				
	Employed	60 (53.6)	40 (35.7)	12 (10.7)	0.17
	Home maker	20 (41.7)	18 (37.5)	10 (20.8)	
4	Socio-economic status				
	Upper-middle	6 (60)	4 (40)	0	0.62
	Middle	22 (57.9)	12 (31.6)	4 (10.5)	
	Lower-middle	48 (48.0)	36 (36)	16 (16)	
	Lower	4(33.3)	6 (50)	2 (16.7)	
5	Family type				
	Nuclear	68 (52.3)	48 (36.9)	14 (10.8)	0.07
	Joint	12 (40.0)	10 (33.3)	8 (26.7)	
6	Number of children in family				
	1-2	38 (48.7)	30 (38.5)	10 (12.8)	0.83
	>2	42 (51.2)	28 (34.1)	12 (14.6)	
7	Physical abuse				
	Yes	36 (42.9)	30 (35.7)	18 (21.4)	0.001*
	No	44 (57.9)	28 (36.8)	4 (5.3)	
8	Alcohol duration \$				
	5-9	9 (45.0)	10 (50.0)	1 (5.0)	0.02*
	10-19	43 (63.2)	16 (23.5)	9 (13.2)	
	≥ 20	28 (38.9)	32 (44.4)	12 (16.7)	
9	Risk for alcohol use disorder®				
	Moderate risk	20 (76.9)	4 (15.4)	2 (7.7)	0.01*
	High risk	26 (44.8)	20 (34.5)	12 (20.7)	
	Very high risk	34 (44.7)	34 (44.7)	8 (10.5)	

Note: #p value based on Chi-square test; * statistically significant (p<0.05); \$: Details pertaining to husbands of study subjects, @-based on AUDIT score

associated with more severe anxiety, as 23.1% of the age group 45-50 had severe anxiety against 18.5% and 7.5% in the age of 24-34 and 35-44 respectively. But this finding was not significant. Illiterate had more severe anxiety compared to educated wives but this was also not significant. Home maker, lower socio-economic class women, women living in joint family, women with more than two children had more anxiety than employed women, higher SES class, women in nuclear family and women with two children respectively. But these findings were not statistically significant (Table 3).

Women who were physically abused had severe anxiety disorder than the one with no abuse and this association was statistically significant ($p=0.001$). Wives of husbands who consumed alcohol for more than 20 years were severely anxious than those husbands with lesser duration of alcohol

consumption and this finding was also statistically significant ($p=0.02$). Compared to wives of husbands who had moderate risk for alcohol related disorder, those with high and very high risk were severely anxious. We got statistically significant p value for this association also (Table 3). HAMA score of wives and AUDIT score of husbands were positively correlated (Figure 1) that indicated as the AUDIT score increased the HAMA score was also increasing and it was statistically significant ($p<0.001$).

Discussion

In the present study majority of the wives of husbands with alcohol dependence belong to 35-44 years of age (50%), studied up to middle school (58.8%), employed (70%), belong to lower middle SES

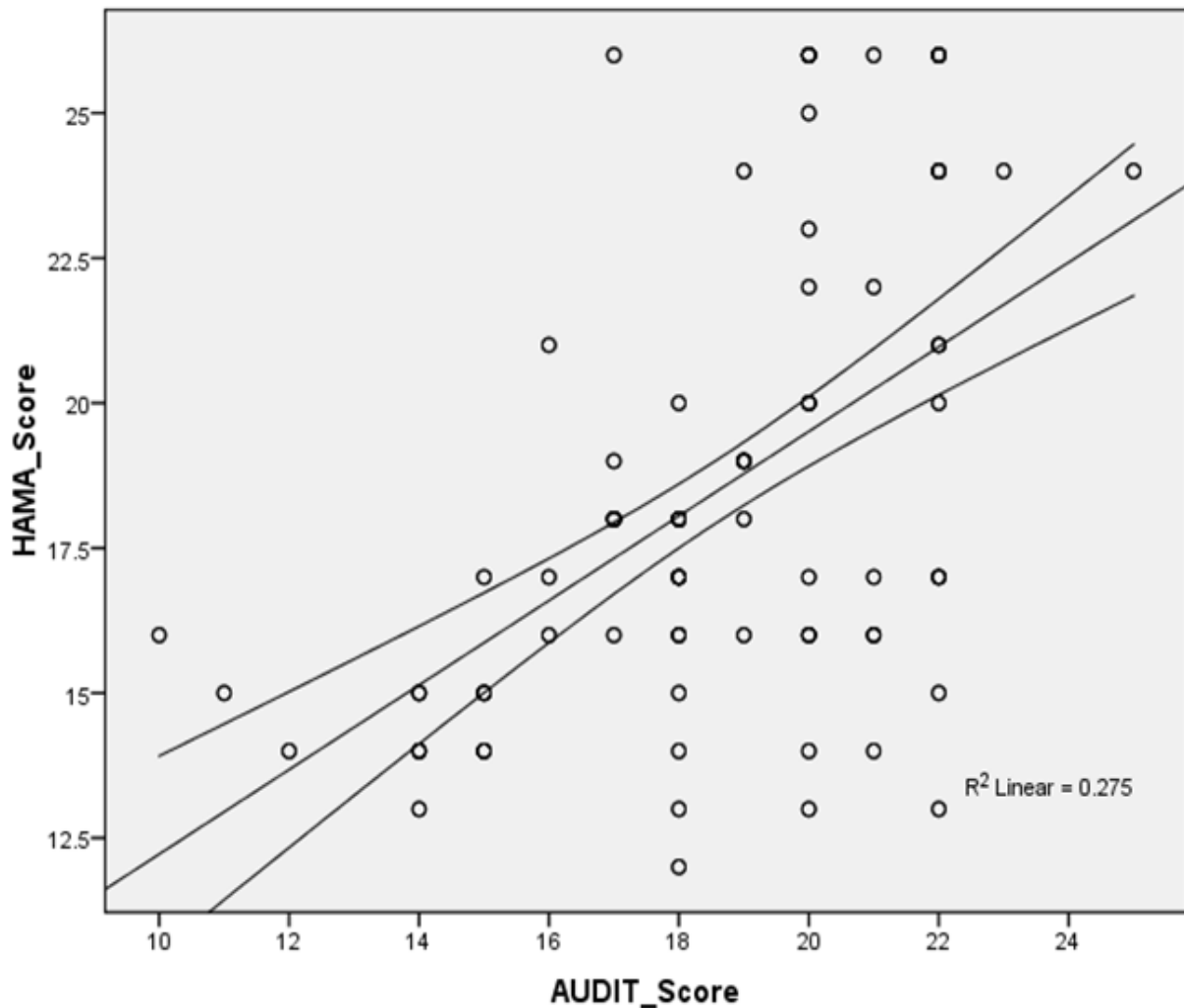


Fig. 1: Correlation between HAMA score of wives and AUDIT score of husbands (Pearson correlation co-efficient - 0.52 and p value <0.001)

(62.5%), Hindus (87.5%) and lived in nuclear family (81.3%). Of them 52.5% were physically abused. AUDIT showed 47.5% of their husbands were at very high risk for alcohol use disorder. Based on HAMA scoring tool, we found that 13.8% of the wives of husbands on alcohol dependence, had severe anxiety disorder, 36.3% of them had moderate to severe anxiety and 50% of them had mild to moderate anxiety. Age of spouse in the range 45-50 years, illiterate, home-maker, lower SES, joint family, more than two children in family, history of physical abuse, more duration of alcohol consumption by husband, increased risk to develop alcohol disorder among husband were identified as risk factors associated with development of severe anxiety disorder among wives of alcohol dependence husbands. There was significant, moderate, positive association between HAMA score of wives and AUDIT score of husbands.

Nirmala et al carried out a study in Tamil Nadu at Trichy to measure the anxiety experienced by the wives of the alcoholics using Taylors manifest anxiety scale. The socio-demographic features of the study participants like age, type of family, educational status were all almost similar to that of the present study. They found 35% of the subjects had high level of anxiety and 65% of them had low level of anxiety [11]. In the current study we identified 13.8% of the wives of alcoholics had severe anxiety. Though both studies were carried out in southern India, in the current study less proportion of wives had severe anxiety, the possible reason for this was the tool used to measure anxiety. Study by Sharma et al. conducted at Chandigarh, India showed 96% of the wives of the alcoholics were anxious one time or other. Of them 70% was frequently anxious because of the alcohol consumption of their husbands [12]. In that study they have not used any standard tool to capture the anxiety level; it was just self-reported prevalence of anxiety.

Studies done in developing and developed countries among wives of alcoholic clients showed that they were subjected to high psychiatric distress than those whose husbands were non-alcoholics [7,13]. Study done in Puducherry showed anxiety and stress related disorders comprised about 36% of the total morbidity among wives of alcoholic husband [14]. Study done in Karnataka showed 65% of the spouses had a psychiatric disorder and it was primarily mood and anxiety disorder [15]. Study carried out in Nepal showed 8.7% of the wives of alcoholics had anxiety disorder [16]. The variation in anxiety disorder among the wives of alcoholics could be due to the tool used to ascertain, the duration of alcohol dependence among husbands, family and

social support system available to cope.

The factors associated with development of anxiety disorder and other mental illness among the spouses of alcoholics was studied across countries. The common factors identified were severity of alcohol dependence among husbands, years of drinking, dependence pattern, history of domestic violence, elderly spouse, family history of alcoholism, poor family support, low socioeconomic status and psychological morbidities in spouses of men of alcoholics [14,17-19]. In the present study we identified similar factors that were in alignment with the previous work done. The correlation between psychiatric morbidity in the wives and severity of alcohol dependence in husbands in the current study was similar to the study done by Mammen et al in Puducherry [14].

Alcohol dependence has very serious impact not only on the individual who consumes but also on the family, society and country [2,5]. In family the most affected individual is wife of the alcoholics and then comes the children [6]. The cultural norm of the country puts women in pathetic situation to suffer, especially when they get married to an alcoholic person. The resilience of such women needs to be improved. Factors affecting the mental health of the spouse need to be studied. With the help of these information interventions can be designed at primary and tertiary health care level to reduce the suffering of wives of alcoholics considerably and to improve their ability to cope with such distressing situation.

Strengths and limitations: Most of the studies done on wives of alcoholics measured the overall psychiatric morbidity but this study is conducted to know the details of anxiety and factors associated with anxiety alone, the sample size was fairly higher than the previous studies and computed based on scientific methods. These were the strengths. One of the limitations is the generalizability of the finding to all wives of alcoholics, as this was the hospital based study that too conducted in a deaddiction centre, the results could not be generalised.

Conclusion and Recommendations

The present study concludes that the spouses of patients with alcoholic dependence have high anxiety status with majority having mild to moderate level of anxiety. There was significant association of anxiety status with physical abuse of wives, higher duration of alcohol consumption and alcohol associated disorder diagnosed by AUDIT score. Duration and severity of alcohol dependence among

husbands were significantly correlated with anxious state of wives. The findings of the present study draw attention to the fact that the anxiety disorders among spouses of men with alcohol dependence are considerable. The issues of the wives of alcoholic dependence patients attending deaddiction centre need to be screened and given counselling for their anxious and other mental disorders. Resilience building program should incorporate the study finding and design interventions to build best coping strategies. In future qualitative research methods need to be employed to better understand the issues of such women in order to build a comprehensive intervention program for their benefit.

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