A Study on Prevalence of Severity of Anxiety disorders in female spouses of Alcohol Dependence Patients

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Abstract
The Alcohol use disorders magnitude constitutes about 33% of the population in our country which is considerably given that India has the second largest population in the world. The prevalence of violence among the wives of alcoholics is high. There are studies reporting violence in distinct domains: physical, emotional, intellectual, and economic that in turn leads to anxiety disorders. To study the prevalence of severity of anxiety disorders, 200 female spouses of alcohol dependence patients reported to Rajah Muthiah Medical College and Hospital is assessed with self-innovative proforma and HAM – A Rating scale.

Results: Out of 200 participants, 31.5% had HAM A score between 16 and 20 followed by 24% between 11 and 15. The mean HAM A score was 15.23 ± 6.49. Resulting in 56 (28%) participants had moderate anxiety, 55(27.5%) had mild anxiety and 18 (9%) had severe anxiety. Total of 130 (65%) participants had been diagnosed with various severities of anxiety disorders.

Conclusion: Psychiatric disorders were prevalent amongst female spouses of alcoholic patients. HAM-A scores showed the burden stress towards female spouses due to alcoholic husbands. Therefore, routine screening of female spouses will aid early diagnosis of psychiatric disorders and enable timely psychological intervention.

Keywords: alcohol dependence, stress, early diagnosis.

Introduction
Alcoholism is the major public health problem worldwide1. People in all cultures, at all times throughout history, have sought out mood or perception altering substances. 25% of adults smoke; 90% drink alcohol; 33% have lifetime experience of at least one illegal drug2. In India alcohol intake is substantially increasing day by day. Some of the drugs like tobacco and alcohol are accepted in our society with some legal limitations but most of the people doesn’t follow the limitations, which leads to dependence, which not only affects the person who consumes it but also the family members most importantly spouses, that leads to some of the psychiatric problems to them like anxiety2.
There is evidence for increased vulnerability to alcohol misuse in those with a family history of alcohol misuse, and the role environmental stressors in perpetuating use cannot be underplayed. The world health organization estimates the presence of 140 million alcoholics in the world. Studies suggest that patients received treatment within 30 days of detoxification were ten times less likely to get relapse, while those who completing detoxification alone getting relapse rate of 65% - 80% ³.

Female Spouses of alcoholic husbands were exposed to a wide range of domestic violence both physically and verbally even sexually that ultimately leads to reduced maladaptive coping skills, marital satisfaction and poor social support in addition to economic burden and social stigma are the other major issues among spouses. These significant level of stressors leads to the psychiatric morbidity to spouses especially anxiety disorders¹.

In a study done in Sri Venkateshwaral medical college, Tirupati, Andra Pradesh, India showed that majority of population affected with psychiatric comorbidity were 31 to 40 years of age group constituting about 29.7%, sample population majority belongs to rural domicile of almost 53.4% out of which 33.4% affected spouses were belonging to rural community. Psychiatric morbidity like anxiety disorders were found to have more among lower socioeconomic status⁴.

A study in Nepal showed that married women of alcoholic husbands landed up in depression which is high in number that follows the conversion disorder and finally the anxiety disorder⁵.

Other factors like poverty because of limited financial resources, lack of economic activities and social resources also has a potential risk for poor psychological mental health of women particularly in low and middle – income countries like India⁶.

In a study done by Bagul et al have showed the number of people gets affected by psychiatric disorders mainly anxiety disorders among female spouses of alcohol dependence husband was 63.33%. Most commonly ended in depression of about 35% patients which included Major Depressive Disorder (MDD) and dysthymia, then comes the anxiety disorder in 15% of the patients which included generalized anxiety disorder, panic disorder (without agoraphobia) and specific phobia. Adjustment disorders were seen in 13.33% patients⁷.

One population-based study found a small, but significant trend for female spouses of male at-risk drinkers to experience more mental distress than spouses of controls⁹. Another study conducted by Dawson et al found that a two times higher risk of anxiety disorders among female spouses of male alcohol abusers ⁸,¹⁰.

A large U.S. epidemiological study of 11,683 women found that women whose intimate partners were alcoholic were three times more likely to be report with multiple traumatic events (e.g., beatings, muggings, forced sex) and mood disorders, and two times more likely to be reported with multiple physical injuries, anxiety disorders and fair to poor health in comparison to women who were not involved with a substance abusing partner¹⁰. Epidemiological studies also investigated the associations between alcohol involvement and divorce. Results from the Epidemiologic Catchment Area (ECA) study showed that about 40% of those with at least one divorce or separation had a lifetime Alcohol Use Disorder (AUD) ¹¹, while last month’s AUD issues were high among the separated/divorced than among married participants ¹²,¹³.

In a study, 186 female spouses of whose husbands had addiction problems and were visiting a professional help center in Tehran, and 173 of their female relatives whose husbands did not have addiction problems completed the Brief Symptoms Inventory (Derogatis & Clearly, 1977). Results of profile analysis demonstrated that the women with addicted husbands had significantly higher scores in all psychiatric morbidity symptoms¹⁴ like depression and anxiety disorders.
Family studies have reported increased incidence of anxiety disorders in the family members and mainly female spouses of patients with alcohol abuse and vice versa and suggested that depression and anxiety disorders may share few prone factors. The Yale Family Study of the comorbidity of alcoholism and anxiety confirmed these observations. Setting
The study will be conducted among patients and their female spouse attending Psychiatry Outpatient Department Rajah Muthiah Medical College Annamalai University, Annamalai Nagar, Chidambaram.

Sample
Two hundred patients and their female spouses were consecutively selected who are attending Psychiatry Outpatient department, Rajah Muthiah medical college, Annamalai university, Annamalai Nagar, Chidambaram.

Study Design
Observational study – Cross sectional study

Inclusion Criteria
- Female spouses of all age group.

Exclusion Criteria
- Female spouses with acute physical illness, known case of psychiatric illness and on any psychotropic medication are excluded.
- Female spouses not consenting for the study

Interview
Female spouses of Patients with diagnosis of Alcohol dependence syndrome who are attending Psychiatry Outpatient Department Rajah Muthiah Medical College, Annamalai University will be selected. The nature of the study and its objectives will be explained to the female spouses. A written informed consent will be obtained from the female spouses. The assessment will be conducted in single session lasting for an hour.

Materials Used
1. Self-innovated proforma to elicit the Socio Demographic data of the female spouses and the years of association with the patient.
2. Hamilton Anxiety Rating Scale (HAM-A)
3. ICD – 10 Criteria for classification of mental and behavioral disorders

Results
Table 1: Distribution of study participants according to HAM – A score

<table>
<thead>
<tr>
<th>HAM_A</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 5</td>
<td>19</td>
<td>9.5</td>
</tr>
<tr>
<td>6-10.</td>
<td>34</td>
<td>17.0</td>
</tr>
<tr>
<td>11-15.</td>
<td>48</td>
<td>24.0</td>
</tr>
<tr>
<td>16-20.</td>
<td>63</td>
<td>31.5</td>
</tr>
<tr>
<td>21-25</td>
<td>22</td>
<td>11.0</td>
</tr>
<tr>
<td>&gt;25</td>
<td>14</td>
<td>7.0</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Fig 1: Bar chart showing distribution according to HAM A scores

31.5% had HAM A score between 16 and 20 followed by 24% between 11 and 15. The mean HAM A score was 15.23 ± 6.49.
Table 2: Distribution according to anxiety grade

<table>
<thead>
<tr>
<th>Anxiety grade</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>71</td>
<td>35.5</td>
</tr>
<tr>
<td>Mild</td>
<td>55</td>
<td>27.5</td>
</tr>
<tr>
<td>Moderate</td>
<td>56</td>
<td>28.0</td>
</tr>
<tr>
<td>Severe</td>
<td>18</td>
<td>9.0</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Fig 2: Bar chart showing distribution according to anxiety grade

28% participants had moderate anxiety and 27.5% had mild anxiety.

Fig 3: Distribution of anxiety among the study participants has been show in Pie chart

About 65% of the participants are affected with anxiety disorders

Table 3: Distribution according to involvement of systems

<table>
<thead>
<tr>
<th>Involvement of system</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVS</td>
<td>146</td>
<td>73</td>
</tr>
<tr>
<td>RS</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>GIT</td>
<td>62</td>
<td>31</td>
</tr>
<tr>
<td>ANS</td>
<td>122</td>
<td>61</td>
</tr>
</tbody>
</table>
Discussion
Alcohol dependence disorder is one of the most common abusive disorder in India affecting majority of the population and it also affects the female spouses of male alcoholic through physical, emotional, abusive violence that leads to various degree of anxiety disorder as supported in the literature by Dawson et al and Ragnmo et al that shows two times increased risk of having anxiety disorders in female spouses of alcohol dependence patients.
In this study, 200 female spouse participants with proper voluntary consent were involved who attends Rajah Muthiah Medical College and Hospital showed various severity of anxiety disorders. Out of 200 female spouse participants involved about 130 which is 65% of involved participants showed various severity of anxiety disorders. Since it is the cross sectional study , a particular duration of population were only involved without their follow up which shows HAM – A score of less than 5 in 19 (9.5%) participants, 6 – 10 score in 34 (17%) participants, 11 – 15 score in 48 (24%) participants, 16 -20 score in 63 (31.5%) participants, 21 – 25 score in 22 (11%) participants and more than 25 in 25 (12.5%) participants in which it interprets that 31.5% had HAM – A score between 16 and 20 followed by 24% between 11 and 15 and resulting in a mean HAM – A of 15.23 = or – 6.49. When it graded according to HAM -A Rating scale it showed 71 (35.5%) participants had no anxiety, 55 (27.5%) participants had mild severity of anxiety disorder, 56 (28%) participants had moderate severity of anxiety disorders and 18 (9%) participants with severe rate of anxiety disorders and finally came to a conclusion that majority of participants had anxiety disorders out of which most commonly they had moderate severity of anxiety disorders.
Hence as suggested by Kishor et al study, female spouses of alcohol dependence patients suffers from various psychiatric morbidity because they are affected by low socioeconomic status , poor social support, low education, physical and mental violence by their alcoholic husbands that might lead to several systemic involvements of the female spouse like Cardiovascular system is the most commonly involved system of about 73% (146) participants had some sought of CVS symptoms like tachycardia, palpitations, chest pain and discomfort.
Likewise follows Autonomic Nervous System (ANS) of about 61% (122) participants were affected with at least one type ANS symptoms like sweating, dry mouth, flushing and tension headache. Then comes the Gastrointestinal Tract (GIT) system of about 31% (62) participants were affected with at least one of the GIT symptoms like difficulty swallowing, burning sensation, nausea, vomit and constipation. Then comes the Respiratory System (RS) of about 25% (50)
participants were affected with at least one of RS symptoms like choking feeling, dyspnea and pressure on chest. But, the main stay of treatment is treating the cause of the symptom that is anxiety disorder.

**Conclusion**

Female spouses of alcoholic patients are at high risk of developing mental health problems like anxiety according to the study. Methods for improving the psychological well-being of spouses may reduce the socioeconomic impact of the illness and anxiety symptoms. From this study everyone could understand the psychological problems that a spouses of alcoholic dependence husband are going through. Due to time constraints or lack of awareness clinicians fail to assess the spouses that leads to psychological morbidity sometimes mortality of spouses. Hence as a main stay of treatment of alcoholic patients would also comprise of looking for psychiatric comorbidities in their spouses and addressing them too with appropriate treatment with regular follow up. This could improve the quality of life of their family and also helps in the treatment adherence as well. Even government should also take necessary action by knowing there is a need to screen and counsel adolescents about alcohol use and to implement policies and programs that delay alcohol consumption thereby preventing the early onset of alcohol consumption and dependence.

**Limitations**

Our study had some limitations. First, the study was limited by its cross-sectional design; we did not perform a follow-up assessment regarding changes in anxiety status. Our study did compare only with the female spouses with their alcoholic partners, not with the other family members nor with the general population. The cost of treatment for the patient with relation to psychiatric morbidity of female spouses not done in this study.

**References**


