PREVALENCE OF ANXIETY IN RELATION TO DEMOGRAPHIC FACTORS AMONG ALCOHOLIC CLIENTS IN A SELECTED DE-ADDICTION CENTRE AT COIMBATORE, INDIA

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ABSTRACT

Objective: A study was aimed to assess the level of anxiety, prevalence, and factors associated with anxiety among alcoholic clients undergoing treatment in a selected de-addiction center located in Coimbatore, Tamil Nadu, India.

Methods: A convenient sample of (n=60) hospitalized alcoholic clients were selected as the participants for the study. A descriptive survey design was employed to determine the prevalence of anxiety among the participants. There was only one de-addiction center with an inpatient facility functioning in Coimbatore City at the time of data collection.

Measures: A state trait anxiety inventory (Spielberger, 1983) was administered to assess the level of anxiety. Prevalence and factors associated with anxiety were analyzed using descriptive statistics such as mean, percentage, and Chi-square statistics.

Results: The result revealed that the anxiety level among the participants was found to be above average, i.e., most of the participants had moderate levels of anxiety.

Conclusion: Further, all selected demographic factors were significantly associated with alcoholic behavior among the participants.

Keywords: Anxiety, Alcoholism, De-addiction, Alcoholic disorder, Demographic factors.

INTRODUCTION

The prevalence of anxiety, depression, and other psychiatric disorders is much higher among persons with alcohol use disorder compared to the general population. Alcohol is said to be the one of the oldest drinks that causes for various problems such as health, personal relationships and social relationship, serious diseases and deaths. Worldwide alcohol production is a business on large scale and consuming alcohol is a cultural practice in many societies. Alcohol abuse becomes a major public health issue that devastates from a single individual to a whole society. For lowering pain, reducing stress, and for other array of minor ailments, alcohol has traditionally been recommended by medical practitioners. In recent days, the alleged health benefits of alcohol have become the focus of greater scientific scrutiny. It has been widely accepted that lesser quantity of alcohol consumption is associated with a lower incidence of coronary heart disease and mortality rate among middle and older adults. Cultural differences apparently influence the pattern of alcohol consumption. In addition, alcohol is linked to categories of disease whose relative impact on the global burden is predicted to increase anxiety.

According to Thomas (2007) major medical conditions, i.e., liver cirrhosis and psychiatric illnesses, namely alcohol used disorder, alcohol addictive illness, alcohol dependence, and alcoholism are all caused due to alcohol abuse. Moreover, alcohol dependence is said to be a complex behavior of the dependent which has far-reaching harmful effects on their family, work, society, and physical and mental health.

Nigam (2021) revealed anxiety and alcohol consumption is found to be strongly related in males compared to females, and also alcohol consumers are more vulnerable to anxiety than non-consumers and vice versa.

Alcoholism is one of the highly threatening public health issues throughout the world. Compulsive and excessive consumption of alcoholic beverages endanger to harm the individual's health, personal relationships, and social standing (Sellakumar and Dhanraj, 2024).

In earlier days medical practitioners recommended alcohol for alleviating pain, to reduce stress, and for a collection of minor illnesses, whereas in recent scenarios, the alleged health benefits of alcohol have become the focus of greater scientific scrutiny. Further, it is now widely accepted that minimal amount of alcohol consumption is associated with the incidence of lower coronary heart disease and mortality in middle-aged and older adults.

As a toxic substance, it is an intoxicant and it is also a drug of dependence. Alcohol abuse causes for numerous premature deaths every year due to alcohol-induced diseases, accidents, and violence. And also, it has been identified that alcohol abuse causes more than sixty different medical conditions.

According to the World Health Organization (2002), alcohol-induced diseases rank third among all other causes of death and disability in developed nations and overall, 4% of the global burden of diseases is attributable to alcohol next to tobacco and hypertension.

Frequent, and persistent drinking of alcohol harms physically, mentally, socially, legally, or economically themselves and others. Alcohol use is also associated with many serious social and developmental issues. The health and well-being of the drinker and the family members are being affected due to alcohol use. Consequently, the impact of alcohol use intrudes deep into society.

Risk of developing health problems such as mental and behavior disorders, including alcohol dependence, major non-communicable

diseases such as liver cirrhosis, some type of cancers, and cardiovascular diseases, as well as injuries occur due to violence, road clashes, and collisions are associated with alcohol consumption (Global Status Report on Alcohol and Health, 2014).

Anxiety commonly presents as a symptom of alcohol withdrawal, initially in the form of "shakes and sweats" as the blood alcohol level declines (Cherney, 2014). Chronic alcohol use and abuse causes serious ill effects on physical and mental health. Chronic excessive alcohol consumption or alcohol dependence, leads to high risk of psychological, neuropsychiatric or neurological impairment, cardiovascular disease, liver disease, malignant neoplasms, and other psycho-social problems.

The psychiatric disorders associated with alcoholism such as major depression, dysthymia, mania, hypomania, panic disorder, phobias, generalized anxiety disorder, personality disorders, schizophrenia, suicide, neurologic deficits, i.e., impairments in working memory, emotions, executive functions, visuospatial abilities, and gait and balance) and brain damage.

For heavy drinkers, alcohol commonly causes mood disorders, depression, anxiety, and psychosis. Alcohol abuse can be found among all age groups (Bellentani *et al.*, 1997). Notable ethnic differences observed were in the prevalence of alcohol-related liver disease and associated mortality (Stinson *et al.*, 2001). Alcoholism is common among people suffering from mental health conditions. To find temporary relief from anxiety, depression, impulsivity, or other diagnosable mental illnesses, people practice consuming alcohol.

Alcohol consumption represses the negative emotions among the users that affect general and psychological well-being, even which may allow a short-lived relief from anxiety, depression, or overwhelming feelings. Consuming alcohol is not the right choice in the magnificent possibility of psychological well-being. And also, there exists a popular misconception among the community that alcohol use relieves stress, hallucinates the individuals that things would be feeling better after a few amount of alcohol consumption (Schomerus et al., 2010).

Though there is unclear evidence about the co-occurrence of anxiety and alcoholism, there are at least three potential, and not mutually exclusive explanations for this phenomenon. According to this theory, first, patients use alcohol as a way to "self-medicate" their anxiety consequently, this may lead to alcohol abuse (Harding, 2011).

Second, and conversely, excessive alcohol use may aggravate as anxiety disorder, with a "kindling" effect of repeated withdrawal cycles or disruptions to the stress response system. At last, a common underlying vulnerability to both anxiety and alcohol abuse exists, even there is no clear primary disorder. A third alternative is an integrated approach (Stewart *et al.*, 2007), may be psychological, like high anxiety sensitivity, or biological, like gamma-aminobutyric acid receptor dysfunction or a gene polymorphism.

Literature related to anxiety among alcoholics
According to Zimmermann *et al.* (2003), those who suffered from anxiety attacks and disorders associated with anxiety had a higher probability level to become dependent drinkers or abuse alcohol. Similarly, Villarosa *et al.* (2014) revealed, those who reported more symptoms of anxiety were consumers of larger amounts of alcohol than those who consumed less quantity of alcohol reported no symptoms of anxiety.

Villafuerte (2011) conducted a study on the Genetic link among alcoholism, impulsivity, and anxiety. The result revealed women with the gene variants to have stronger associations to alcoholism and impulsive behavior than men.

Based on a qualitative literature review, an association identified between anxiety, health risk factors, and risk for chronic diseases. As well untreated

anxiety and increased risk for practice of health risk habits can further elevate the risk for later-onset chronic diseases and develop complications in disease management (Sawchuk and Oltunji, 2011).

Lowa *et al.* (2008) found an association between anxiety and alcohol versus cannabis abuse disorders among adolescents in primary care settings. The result indicates a strong association between current anxiety and alcohol, but not cannabis abuse.

Willinger (2002) conducted a study on anxiety as a predictor of relapse in a detoxified sample of 521 alcohol-dependent patients. Results revealed high anxiety as a stable trait, and personality traits such as high novelty seeking and low harm avoidance covering exploratory excitability, impulsiveness, extravagance, disorderliness, and uninhibited optimism and predicted relapse.

METHODS

Research methods herein adopted include research approach, design, setting, population, criteria of sample selection, sampling technique, variables of the study, tools used for data collection, procedure for data collection, and technique for data analysis.

Research approach and design
A quantitative research approach with descriptive survey research design was employed in this piece of research study.

Setting
The study was conducted at a de-addiction center located in Coimbatore Corporation, Tamil Nadu India. This center was randomly selected for the present study by using the lottery method. In this center, therapeutic interventions such as medications along with individual and group counseling, rehabilitation, yoga, family-focused counseling, and recreational activities are rendered routinely for the clients who are admitted for De-addiction. Intensive treatments with follow-up sessions are conducted to ascertain the efficacy of treatment and the prognosis of the clients.

Measures
Personal data sheet
Personal data sheet were developed by the present investigator to collect demographic data from the participants.

State trait anxiety inventory (Spielberger, 1983)
State Trait anxiety inventory developed by Spielberger (1983) was employed to collect data. This scale consists of 40 Question statements under two categories, namely state and trait. Each consists of 20 statements with 4-point rating scale. The minimum possible score is 20 and maximum possible score is 80 for both state and trait scales. The scale is highly valid and reliable.

Population
The target population for the present study was alcoholics. The accessible population was alcoholics who are admitted in the selected de-addiction Centre, Coimbatore Corporation Tamil Nadu, India.

Sampling
A purposive sample of sixty (n=60) male participants were undergoing treatment for alcoholism as inpatients selected for the study. For selecting participants for the study following inclusion and exclusion criteria were followed.

Criteria for sample selection
Inclusion criteria
1. Clients who are diagnosed as Alcohol dependence syndrome
2. Clients who can able to read and write Tamil or English
3. Clients who are willing to participate in the study.

Exclusion criteria
1. Clients who have associated features of psychotic symptoms
2. Clients who are admitted for other addictive disorder
3. Clients who are undergoing treatment for other substance abuse.

RESULTS

Demographic variables of alcoholics

The demographic variables such as age, religion, educational status, occupation, monthly income, working hours per day, marital status, type of family, social support, family history of alcoholism, duration of alcohol intake and frequency of using alcohol were analyzed using descriptive statistics.

Collected data were summarized in terms of frequency of percentage and presented in the forthcoming tables.

The above Table 1 depicts the age group of the participants, higher the number i.e. 32 (53.33%) belong to the age group of 31–40 years and the lowest number, i.e., 05 (8.33%) belong to the age group of 51–60 years.

The above Table 2 shows the distribution of religion of the participants, most of them belongs to Hindu religion, i.e., 47 (78.33%) and the least were belongs to the Muslim religion, i.e. 03 (05%).

The above Table 3 depicts the Educational status of the participants, which reveals, most of them were graduates 27 (45.00%) and the least were belongs to primary educational i.e. 03 (05%).

The Above Table 4 shows the occupation of the participants, most of them i.e. 31 (51.66%) were working under private sector and the least number of participants were belongs to i.e. 11 (18.33%) were working under Government sector.

The above Table 5 reveals the data on a monthly income of the participants, most of them, i.e., 33 (55.55%) belong to below 10,000/- and the least belong to above 20,000/- 04 (6.66%).

Above Table 6 depicts the working hours per day which reveals most of them were working between 5 and 8 h (73.33%) only 3 were working 1–4 h/day (05%).

The above Table 7 shows the marital status of the participants, which reveals most of the participants were married 54 (90%) and the least 06 (10%) were unmarried.

The above Table 8 shows the family type of the participant. Most of the participants belongs to the nuclear family type i.e. 31 (56.67%) and remaining were 29 (43.33%) belongs to joint family.

The above Table 9 depicts the social support of the participants which reveals most of them were received support from family members, i.e., 38 (63.33%) and the remaining were received support from friends i.e. 22 (36.66%).

The above Table 10 shows the family history of participants which reveals most of them had a family history of alcoholism 35 (58.33%) and the rest of them had no family history of alcoholism 25 (41.66%).

The above Table 11 depicts the duration of alcohol intake among the participants which reveals the most of them consume alcohol between 6 and 10 years, i.e., 30 (50.00%) and only 9 (15.00%) consume alcohol more than 11 years and <15 years.

The above Table 12 depicts the frequency of alcohol using which reveals most of participants consume alcohol daily in both experimental, i.e., 34 (56.66%) and only 3 (05.00%) consume alcohol once in a week.

Table 1: Frequency distribution of alcoholics based on age (n=60)

S. No.	Age in years	Frequency	Percentage
1	21–30	11	18.33
2	31–40	32	53.33
3	41–50	12	20.00
4	51–60	05	8.33

Table 2: Frequency distribution of alcoholic clients based on religion (n=60)

S. No.	Religion	Frequency	Percentage
1	Christian	10	16.6
2	Hindu	47	78.33
3	Muslim	03	05

Table 3: Frequency distribution of alcoholics based on educational status (n=60)

S. No.	Educational status	Frequency	Percentage
1	Primary	03	05.00
2	Secondary	23	38.33
3	Higher secondary	07	11.66
4	Graduate	27	45.00

Table 4: Frequency distribution of alcoholics based on occupation (n=60)

S. No.	Occupation	Frequency	Percentage
1	Business	18	30.00
2	Private sector	31	51.66
3	Government sector	11	18.33

Table 5: Frequency distribution of alcoholics based on monthly income (n=60)

S. No.	Monthly income in Rs	Frequency	Percentage
1	<10,000	33	55.00
2	10,001–20,000	23	38.33
3	>20,001	04	6.66

Table 6: Frequency distribution of participants based on working hours per day (n=60)

S. No.	Working hours per day	Frequency	Percentage
1	1–4	03	05
2	5–8	44	73.33
3	9–12	13	26.66

Table 7: Frequency distribution of participants based on marital status (n=60)

S. No.	Marital status	Frequency	Percentage
1	Married	54	90
2	Unmarried	06	10

The above Table 13 shows the distribution of the level of Anxiety before Forgiveness therapy among participants, it reveals most of the participants had moderate level of anxiety, i.e., 39 (65.00%) and only 9 (15.00%) had severe anxiety.

Table 8: Frequency distribution of alcoholics based on type of family (n=60)

S. No.	Type of family	Frequency	Percentage
1	Nuclear	31	56.67
2	Joint	29	43.33

Table 9: Frequency distribution of alcoholics based on social support (n=60)

S. No.	Social support	Frequency	Percentage
1	Family	38	63.33
2	Friends	22	36.66

Table 10: Frequency distribution of participants based on family history of alcoholism (n=60)

S. No.	Family history of alcoholism	Frequency	Percentage
1	Yes	35	58.33
2	No	25	41.66

Table 11: Frequency distribution of participants based on duration of alcohol intake (n=60)

S. No.	Duration of alcohol intake in years	Frequency	Percentage
1	<5 Years	10	16.66
2	6–10 Years	30	50.00
3	11–15 Years	09	15.00
4	>15 Years	11	18.33

Table 12: Frequency distribution of alcoholics based on frequency of using alcohol (n=60)

S. No.	Frequency of using alcohol	Frequency	Percentage
1	Daily	34	56.66
2	Weekly once	03	05.00
3	Weekly 2–4 times	23	38.33

Table 13: Assessment on the level of anxiety among alcoholic clients (n=60)

S. No.	Level of anxiety	Frequency	Percentage
1.	Mild	12	20
2.	Moderate	39	65.00
3.	Severe	09	15

Association between the level of anxiety and selected demographic variables among alcoholics

Chi-square test (with Yates correction) was used to find the association between the level of Anxiety and selected demographic variables like age, educational status, occupation, monthly income, marital status, type of family, family history of alcoholism, duration of alcohol intake, and frequency of using alcohol among participants.

Table 14 shows the significant association between the level of Anxiety and selected demographic variables among participants. The result revealed that the level of anxiety and all the selected demographic variables presented above had a significant association. Hence, demographic factors play a significant influence in the level of anxiety among alcoholic participants who had hospitalized for treatment at the selected de-addiction center.

Table 14: Frequency distribution of alcoholics based on type of family

S. No.	Variable	Chi-square
1	Age group	(6, 60) 91.786***
2	Religion	(4, 60) 41.879***
3.	Educational status	(6, 60) 56.840***
4.	Occupation	(4, 60) 41.439***
5.	Monthly income	(4, 60) 25.120***
6.	Working hours	(4, 60) 40.215***
7.	Marital status	(2, 60) 37.778***
8.	Family type	(2, 60) 20.982***
9.	Social support	(2, 60) 22.679***
10.	Family history	(2, 60) 21.178***
11.	Duration of alcohol intake	(6, 60) 72.923***
12.	Frequency of alcohol intake	(4, 60) 24.281***

p>0.05, ***Significance @ 0.000

DISCUSSION

Demographic profile

The demographic profile of the participants included age, gender, educational status, occupation, frequency of alcohol use, type of family, marital status, family support, working hours, monthly income, and duration of alcohol use. The age of the participant ranged minimum from 21 to 50 years. All the participants were males since alcohol consumption mostly practiced by males rather than females. In Indian culture consuming alcohol is quite uncommon, since in the selected de-addiction center no female clients found. The educational status of the clients belongs to primary to graduation, similarly occupational status were business, private, and government salaried persons. Hence, the clients were earning members had an opportunity to spend money for alcohol and affordable for the treatment might have contributed to alcoholic behaviour and subsequent treatment.

Level of anxiety among alcoholics

Analysis of Anxiety levels among 60 Alcoholics shows, in the experimental group 21 (70.00%) had moderate level of Anxiety and 7 (23.33%) had severe level of Anxiety and 2 (06.67%) had a mild level of Anxiety. In control group, 18 (60.00%) had moderate level of anxiety, 10 (33.33%) had mild level of anxiety, and 2 (06.67%) had severe level of anxiety.

Level of anxiety and selected demographic variables

The association between the level of anxiety and selected demographic variables among alcoholics was calculated using Chi-square. It was found that the family history of alcoholism (χ^2=7.67 significant at 0.05 level) and frequency of using alcohol (χ^2=10.91 significant at 0.05 level) had an association with the level of anxiety.

Moreover, the other variables such as age, educational status, occupation, monthly income, marital status, type of family, and duration of alcohol intake had no association with the level of anxiety among alcoholics.

CONCLUSION

1. Male participants were only undergoing treatment for alcoholic problem
2. Most of the clients who were under treatment were found to be earning members, hence spending money for alcohol consumption was routine and not much difficult for them
3. The frequency of alcohol use among the participants was found to be high
4. All demographic factors herein investigated were found to be associated with level of anxiety
5. Among alcoholics, anxiety persists as a personality factor which is associated with demographic factors.

Hence, the study concludes alcoholism is associated with the level of anxiety and anxiety is associated with demographic variables herein studied.

AUTHOR CONTRIBUTION

Authors equally contributed their roles in executing this piece of research work in framing the design and analysis of data, further reviewing the literature, substantiating the findings, and concluding the results.

CONFLICT OF INTEREST

The author declares no conflict of interest regarding this manuscript.

AUTHOR FUNDING

Author's own effort and interest the study were conducted, and no financial support received from any funding agency or organization for conducting this study.

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