

**A CROSS SECTIONAL (OBSERVATIONAL) STUDY ON HEALTH RELATED  
QUALITY OF LIFE IN ADMITTED PATIENTS WITH ALCOHOL USE DISORDERS****Dr. Basavanna P. L.\*, Anupa Joseph, Dicty Varghese, Lalngilneii and Tom Joseph**<sup>1</sup>Department of Pharmacy Practice, Sarada Vilas College of Pharmacy, Krishnamurthypuram, Mysuru 570004, Karnataka, India.<sup>2</sup>Department of Clinical Pharmacology, Mysore Medical College and Research Institute and Associated Hospitals, Mysuru, Karnataka, India.**\*Corresponding Author: Dr. Basavanna P. L.**

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**ABSTRACT**

**Background:** Alcohol consumption affects communities in every sector of the world which makes a global issue among manhood. Worldwide one in three people (32.5%) consume alcohol, which is almost equivalent to 2.4 billion people, including 62.5% of men (1.5billion men) and 37.5% of women (0.9billion women). **Objectives:** The main objective of the study was to assess the quality of life and severity among alcoholic patients. **Materials and Methods:** Study was carried out at Psychiatry department, Mysore Medical College & Research Institute and K R Hospital, Mysore, India, from November 2017 to April 2018. A total of 120 patients were enrolled in the study as per inclusion and exclusion criteria. Patient's demographic data were collected by using patient data collection form and severity was assessed by using Severity Of Alcohol Dependence Questionnaire (SADQ). The quality of life was assessed by using WHOQOL-BREF questionnaire. The domains associated with the quality of life were identified and correlated with multiple factors. **Result:** Majority of the patients were in the age group of 35-44 years. 59.2% (71 patients) observed with severe alcohol dependence during the study period. From the QOL assessment the 'environmental score' shows higher QOL. **Conclusion:** The study was conducted to enhance the overall quality of life among alcoholic individuals. A decline in alcohol consumption can be obtained by giving education and awareness about the disorder in the population.

**KEYWORDS:** Alcohol use disorder(AUD), Quality of life(QOL), SADQ.**INTRODUCTION**

According to WHO alcohol is a psychoactive substance with dependence-producing properties that has been widely used in many cultures for centuries. The harmful use of alcohol causes a large disease, social and economic burden in societies. Environmental factors such as economic development, culture, availability of alcohol and the level and effectiveness of alcohol policies are relevant factors in explaining differences and historical trends in alcohol consumption and related harm. Alcohol has long been known as a risk factor for disease.<sup>[1]</sup>

In 1990, the American society of Addiction Medicine defined alcoholism as "a primary, chronic disease with genetic, psychosocial, and environmental factors influencing its development and manifestations. The disease is often progressive and fatal. It is characterized by continuous or periodic: impaired control over drinking preoccupation with the drug alcohol, use of alcohol despite adverse consequences and distortions in thinking, most notably denial."<sup>[2]</sup>

In many of today's societies, alcoholic beverages are a routine part of the social landscape for many in the population. This is particularly true for those in social environments with high visibility and societal influence, nationally and internationally, where alcohol frequently accompanies socializing. In this context, it is easy to overlook or discount the health and social damage caused or contributed to by drinking. Alcohol is a toxic and psychoactive substance with dependence producing propensities. Alcohol consumption contributes to 3 million deaths each year globally as well as to the disabilities and poor health of millions of people.

Overall, harmful use of alcohol is responsible for 5.1% of the global burden of disease. Harmful use of alcohol is accountable for 7.1% and 2.2% of the global burden for males and females respectively. Alcohol is the leading risk factor for premature mortality and disability among those aged 15 to 49 years, accounting for 10 percent of all deaths in this age group. Disadvantaged and especially vulnerable populations have higher rates of alcohol-related death and hospitalization. Both the volume of lifetime alcohol use and a combination of

context, frequency of alcohol consumption and amount consumed per occasion increase the risk of the wide range of health and social harms. The risks increase largely in a dose-dependent manner with the volume of alcohol consumed and with frequency of drinking, and exponentially with the amount consumed on a single occasion. Surrogate and illegally produced alcohols can bring an extra health risk from toxic contaminants. Since any alcohol use is associated with some short-term and long-term health risks, it is very difficult to define universally applicable population-based thresholds for low-risk drinking.<sup>[3]</sup>

So we thought of working on a project based on the health related quality of life of patients with alcohol use disorder which helps to know about the problems faced by the patients who are with alcohol dependence or alcohol withdrawal syndrome. It helps the medical professional to give better treatment and support to the patients using cognitive-behavioural therapy, motivational enhancement therapy, marital and family counselling.

Health related quality of life is well being which assesses the positive emotions and life satisfaction. Quality of life (QOL) is an important factor of outcome tracking and treatment in alcohol misuse.<sup>[10]</sup> World health organisation defined quality of life as “an individual’s perception of their position in life, and in the context of culture and value systems in which they live, and also in relation to their goals, expectations, standards, and concerns.”<sup>[4][5]</sup> Most widely used quality of life measures are SF-36, SF-12, and WHOQOL-BREF. Here we are using alcohol related quality of life studies reported that coexisting mental disorders or the severity of psychopathology was associated with poorer HRQOL among people with alcohol use disorder.<sup>[6]</sup>

Alcohol Dependence Syndrome (ADS) can result in an increased morbidity and mortality. Severity was assessed by Severity of Alcohol Dependence Questionnaire (SADQ). It is a 16 item self-report used to measure the

severity of dependence. Each question has four possible responses scored as 0, 1, 2 and 3. The maximum score on the scale is 31 and dependence is categorized based on scores, into mild (0-16), moderate (16-30), and high (>31) dependence.<sup>[7]</sup>

## MATERIALS AND METHODOLOGY

This is a hospital based cross sectional (observational) study. it was conducted at Mysore medical college and research institute and associated hospitals, (K R hospital);Mysuru. The study was carried out at psychiatry department. The study duration was the period of 6 months from November 2018 to April 2019. During the study period we attended 120 patients who are above for above 20 years. Female patients with pregnancy and lactation, incomplete information, alcoholic patients with comorbidities of physical illness are excluded from the study.

Ethical approval was obtained from the institutional ethical committee of Mysore Medical College and Research Institute, KR Hospital; Mysuru.

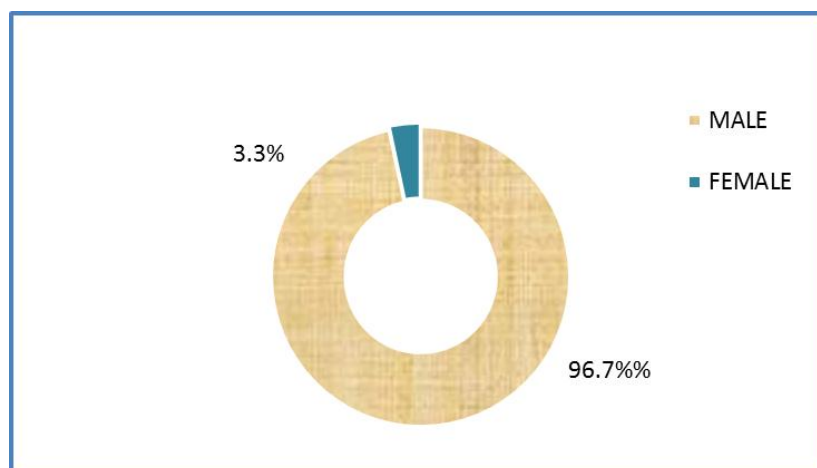
Importance of the study was explained to the participants and informed consent was taken from the patients or their bystander. WHOALQOL BREF questionnaire was used to investigate the health related quality of life in patients with alcohol use disorders. SADQ (Severity of Alcohol Dependence Questionnaire) is used here to measure severity in alcoholic patients. The statistical analysis was done by using SPSS and analysed using statistical test like ANOVA and two tailed t -test and the results were compared.

## RESULTS

### Demographic details

**Table 1: Gender Distribution of the Study.**

GENDER	FREQUENCY	PERCENTAGE
MALE	116	96.7%
FEMALE	04	3.3%
TOTAL	120	100



**Figure 1: Gender Distribution of the Study.**

## Quality of Life

Table 2: Mean Of Domains.

SL.NO	DOMAINS	MEANS	STD.DEVIATION
1	Physical health	19.88	4.18
2	Psychological	16.36	3.37
3	Social relationship	8.57	2.12
4	Environmental	21.28	4.31

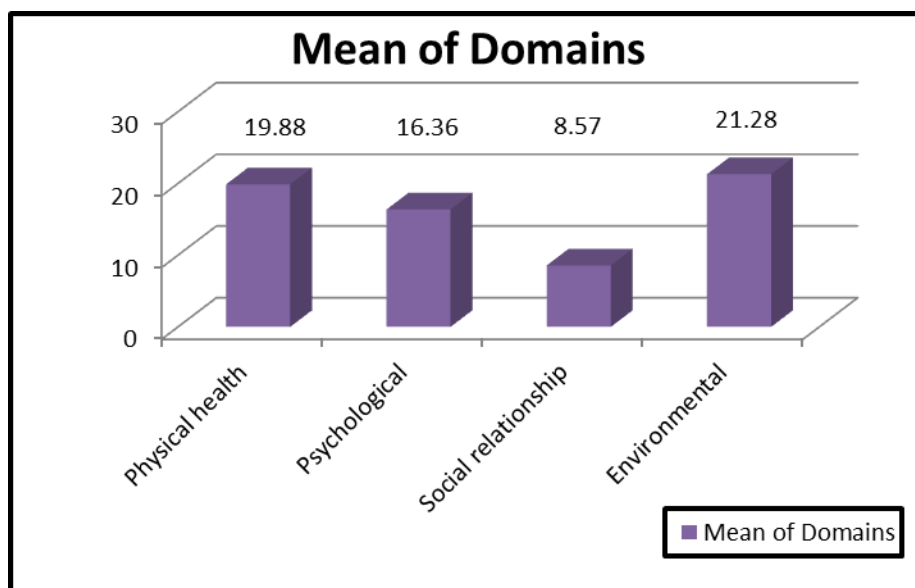


Figure 2: Mean Of Domains.

## Severity Scores in the Study Population

Table 3: Severity Scores in the Study Population.

SEVERITY	FREQUENCY	PERCENTAGE
Mild	5	4.1
Moderate	44	36.7
Severe	71	59.2
TOTAL	120	100

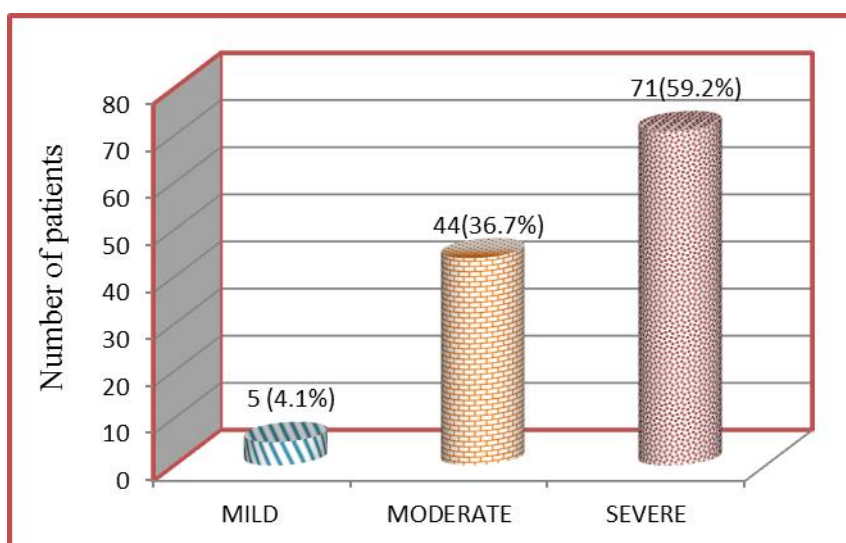


Figure 3: Severity Scores In The Study Population.

Table 1 & figure 1 shows that, out of 120 patients, 96.7% were males (n=116) and 3.3% were females (n=4). The "overall quality of life" was done by the direct

interaction with the help of WHOQOL-BREF questionnaire with patients during the study. Table 2 & figure 2 explains mean of various domains considered in

the study and the study summarises that Environmental domain ( $21.28 \pm 4.31$ ) have the highest mean comparing with other ones whereas the physical health domain ( $19.88 \pm 4.18$ ) also stands nearer to it. Finally, the social relationship ( $8.57 \pm 2.12$ ) shows the least mean of domains.

Table 3 & figure 3 shows severity scores of the study population, and it is found that 59.2% of the patient were severe ( $n=71$ ), 36.7% were moderate ( $n=44$ ) and 4.1% of the patients were mild cases. The mean score of the total population is found to be  $30.93 \pm 9.12$ . The maximum and minimum score is 13 and 52 respectively.

## DISCUSSION

### Demographic

The study was carried out in the department of Psychiatry, Mysore medical college and research institute and associated hospitals, (K.R Hospital) over a period of 6 month from November 2018 to April 2019. This is a cross-sectional (observational) study on health related quality of life in admitted patients with alcohol use disorder.

In the study of 120 patients, 96.7% of subjects were males and 3.3% were females. The male patients were affected with the disorder more than the female patients. The result is similar to the study conducted by Sibebe Faller et al. In this study, the selected 174 patients were divided gender wise, in which males were 153 (87.4%) and females were 21 (12.6%).<sup>[8]</sup>

Out of 120 patients, majority of the people belong to the age group of 35-44 years (50%) followed by the age groups 25-34 years (28.3%) and 45-54 years (17.5%). By analysing these results, it is understood that alcohol dependence showed a maximum among patients of age group 35-44 years (60 patients) and the minimum were observed in 15-24 years (5 patients). In the study population, 54.2% (65 patients) were uneducated followed by 42.5% (51 patients) who were matriculate and the graduated population have gained least rank of 3.3% (4 patients). From the study population, we have witnessed that 22.5% (27 patients) subjects were jobless, where rest are employed in which 23.3% were doing business (28 patients), 17.5% sales and services (21 patients) and 13.3% industrial work and other jobs (29 patients). Of the employed population, the least data was from agriculture field which was 12 patients (10%). Out of 120 patients, 86.7% (number of patients=104) were married, 13.3% (number of patients=16) were single or never married.

In the study, the data's related to alcohol induced conditions, 27.5% of patient had history of irrelevant talks (number of patients=33) followed by 25.8% psychosis (number of patients=31), 21.7% of patient had history of aggressive behaviour (number of patients=26), 9.2% patients had sleeplessness (11 patients). In the study population, 40.8% is diagnosed with Alcohol

Dependence Syndrome (ADS) with Nicotine Dependence Syndrome (NDS) (number of patients=46), followed by ADS 30% (number of patients=36), 15.8% (19 patients) does not show any significant symptoms after alcohol consumption. Irrelevant talks are caused due to alcoholic delirium tremens and dyselectrolytemia.

### Severity

The severity of alcohol dependence was measured using "Severity of Alcohol Dependence Questionnaire" (SADQ) which covers the dependence syndrome aspects like physical withdrawal symptoms, affective withdrawal symptoms, relief drinking, frequency of alcohol consumption, speed of onset of withdrawal symptoms. Answers to each question are rated on a four-point scale: almost never-0, sometimes1, often-2, nearly always-3. A score of 31 or higher, between 16-30, below 16 indicates "severe alcohol dependence", "moderate dependence" and "mild physical dependency" respectively. Severity scores of the study population is assessed, and it is found that 59.2% of the patients were severe (number of patients=71), 36.7% were moderate (number of patients=44) and 4.1% of the patients were mild cases (number of patients=5). The mean score of the total population is found to be  $30.93 \pm 9.12$ . This study correlates with the study of Potamianos G et al.

### Quality of life

A 38.4% of individuals rate their lives as "neither poor nor good" as well as 28.3% rate themselves as "poor out of 120 candidates, only 12.5% are happy with their lives. Later the mean of each domain were calculated and the results give a conclusion stating that mean of environmental domain 21.28 has the highest value. The mean of social relationship was found to be 8.57. The result is similar to study conducted by Sibebe F et al shows that highest quality of life in the environmental domain has dominance over other domains.<sup>[8]</sup>

The quality of life among individuals is assessed by monitoring the mean of different domains. By comparing the male and female patients, the mean value of environmental domain in males was 21.52. It shows a slightly more dominants over the females (14.5). The mean score in the social relationship domain in male patients was 8.62 has a slight increase than the females (7.0). On the other hand, physiological and physical health has undergone the estimation of their mean. Male (16.51) of physiological are having better quality of life in compare with female (12.0). Physical health has better effective males (20.7) over the females (14.5).

When the gender was correlated with several domains of QOL gives an exciting result as the physical health, physiological and environmental shows the correlation were the correlation was done by independent sample t-test which gave a significance of 0.008, 0.008 and 0.001 respectively. The mean of domain and the age of individuals included in the study were compared with different domains in the QOL.

In the physical health domain, 25-34 years had a highest mean (21.97) whereas the 16.43 was reported in age group 45-54 years. The physiological domain has a different data with respect to the physical health domain. The mean of the domain in the age group of 15-24 years (18.2) had a significant rate with the least mean of 14.95 in 45-54 years. In social relationship, the highest mean analysed among the group of 15-24 years (10.0) with respect to the lowest mean in 45-54 years (6.95). The environmental domain showed a mean of 22.8 in the age group of 15-24 years with the least mean of 18.43 in 45-54 years.

The above information concludes by giving the study report showed that, between the age group of 45-54 years, comparatively showed less QOL in relation with other age groups. The domains of quality of life and age are correlated by using ANOVA technique. During the correlation methods, four domains had significance in the age group, physical health, physiological, social relationship and environmental score viewed with a significance of 0.001, 0.003, 0.002 and 0.003 respectively. The QOL of patient are also associated with their social habits. In our study the social habits was mainly monitored among alcoholic and alcoholic+smoker. In alcoholic patients the environmental domain was observed with a highest mean of 21.31 whereas 8.58 was the least mean in social relationship domain. In alcoholic and smoker individuals a mean of 21.18 was observed in physical health (highest) and the lowest was in social relationship (8.45). The QOL of patient are also associated with their financial status. In our study, the financial status was mainly monitored by assessing their annual income and the annual income was categorised as less than Rs. 19,999 and above Rs. 19,999. In the mean of annual income of various domains below Rs.19999, the mean of environmental domain (21.16) gave the largest value where as a mean of 8.54 of social relationship observed with least value. On the other hand, annual income above Rs. 19,999 a highest mean of 22.00 exhibits in environment domain and a lowest mean of 8.73 was viewed in social relationship. When the correlation study was conducted using t-test for income and domain, none of the domain shows significance. As the study progresses domains were compared with marital status of individuals. The environmental domain had the highest mean among both single (23.38) as well as married (20.96) with respect to domains. When the overall mean of domains was analysed, the social relationship domain exist with a least mean in both single (10.19) and married (8.32). When correlation was conducted between the domains and marital status a significance of 0.004, 0.001 and 0.036 was seen in physical health, social relationship and environmental domain respectively with the patient's marital status.

By comparing the various alcohol induced conditions with the QOL domains our results states that the environmental domain shows higher mean in conditions

like irrelevant talks (19.58), psychosis (20.55), aggressive behaviour (23.31), except sleeplessness (21.09), which is higher in physical health domain and least mean shows in social relation domain in every conditions. An ANOVA test was conducted to correlate the alcohol induced conditions between the domains that gave a significance of 0.000 and 0.004 in social relationship and environmental domains.

## CONCLUSION

Over all consumption of alcohol results in the death of 2.5 million people annually. Awareness among the communities in relation to the harmful use of alcohol and related disorders should be conducted which helps the society.

The current study explores the demographic characteristics, physical health, physiological health, social relationship, environmental factors that affects the alcoholic patients. The ratio of male and females were also monitored in the study.

In our study male patients were more in number when compared with females. The quality of life (QOL) was monitored using WHOQOL-BREF scale. The 'overall quality of life' and 'health perceptions' were assessed during the study, which give most of them living with neither poor nor good in overall quality of life, and health perception was neither satisfied nor dissatisfied.

Since, the QOL was assessed with respect to the various domains. The environmental domain showed a higher quality of life than other domains. Both the male as well as female patients were enrolled in the study. But the female exhibit an increased QOL when compared with males. Patients between the age group 45-54 revealed a decreased QOL than the other age groups during the study. The patients having annual income of more than Rs.19999/- showed a better quality of life.

Severity was monitored using Severity of Alcoholic Dependence Questionnaire (SADQ), shows increased severe alcohol dependence in 71 patients (59.2%) and mild in 5 patients (4.1).

On the other hand an improved quality of life has been demonstrated by the unmarried ones with respect to other marital status. Alcoholic + smoker patients exhibit a decreased quality of life than the alcoholics alone.

When alcohol induced conditions compared with domains, only social relationship shows significance.

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