## Original Research Article

# STUDY ASSESSING THE PROPORTION OF ALCOHOL USE AMONG ADULT MALES ATTENDING A RHTC IN MAMANDUR,TAMIL NADU

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## Abstract

**Introduction:** Alcohol dependence is a cluster of behavioral, cognitive and physiological phenomena that may develop after repeated alcohol use. Screening for alcohol consumption among patients in Primary care provides an opportunity to educate patients about low-risk consumption levels and the risk of excessive alcohol use.  **Objective:** To estimate the proportion of Alcohol use among Adult Males and to find out the association of demographic variables with the risk levels of the subjects.  **Methodology**:  A cross sectional study was carried out in the Rural Health and Training Centre (RHTC) in Mamandur, Tamil Nadu for a period of one and half month from March 16th to April 30th 2016.The study included 160 adult males attending the OP clinic of the RHTC who were interviewed using a questionnaire for data on socio demographic profile and WHO-AUDIT questionnaire for alcohol use.  **Results**: Mean age of the subjects was $47\pm15.1$ S.D.  Majority of the subjects (80.63%) were married and 30.63% were illiterate.The proportion of alcohol intake among the study participants was 42%. AUDIT scoring showed 5.6% were alcohol dependent and 9.4% had harmful and hazardous drinking pattern.**Conclusion:** The present study showed that more than half of the patients were current alcohol users. Strengthening primary care services and adopting simple screening tools for Alcohol Use Disorder through the incorporation of simple screening tools like AUDIT in national programs, can be an efficient intervention to tackle the problem of alcohol use.

**Key words:** RHTC, AUDIT, dependence, Drinking pattern

## INTRODUCTION

Alcohol consumption and problems related to alcohol vary widely around the world, but the burden of disease and death remains significant in most countries. Alcohol consumption is the world's third largest risk factor for disease and disability and is the greatest risk in middle-income countries.[1]Alcoholism or alcohol dependence is defined by the American Medical Association as a "Primary, Chronic disease with genetic, psychosocial and environmental factors influencing its development and manifestations". Hazardous drinking is a pattern of alcohol consumption that increases the risk of harmful consequences for the user or others. Harmful use refers to alcohol consumption that results in consequences to physical and mental health.Alcohol dependence is a cluster of behavioral, cognitive, and physiological phenomena that may develop after repeated alcohol use.[2] Worldwide consumption in 2010 was equal to 6.2 litres of

pure alcohol consumed per person aged 15 years or older, which translates into 13.5 grams of pure alcohol per day. In 2012, about 3.3 million deaths, or 5.9% of all global deaths, were attributable to alcohol consumption [1].Despite the large health, social and economic burden associated with harmful use of alcohol, this problem has remained a relatively low priority in most of the public health policies. Many factors contribute to the development of alcohol-related problems mainly ignorance of drinking limits and risks associated with excessive alcohol consumption. Screening for alcohol consumption among patients in a Primary care setting provides an early opportunity to educate patients about low-risk consumption levels, the risk of excessive alcohol use and also offers helps the practitioners to take preventative measures that have proven effective in reducing alcohol-related risks.[3] The objectives of the study are to study the proportion of Alcohol use among Adult Males attending a Rural Heath Training Centre (RHTC) and to find out the

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association of selected demographic variables with the risk levels of the subjects. The current study will be useful for understanding the problem of alcohol use and for taking specific interventional measures at the community level.

## MATERIALS AND METHODS

A cross sectional study was carried out in the Rural Health and Training Centre (RHTC) in Mamandur, Tamil Nadu for a period of one and half month from March 16th to April 30th 2016. A sample size of 160 was calculated taking the prevalence of alcohol use as 38% as per a previous study conducted in a rural area in Tamil Nadu[4] and relative precision of 20% and non-response rate of 10%. All adult males attending the OP clinic of the RHTC were interviewed using a questionnaire for data on socio demographic profile and AUDIT[3] (Alcohol Use Disorders Identification Test) questionnaire was used to assess the pattern of alcohol use after obtaining written informed consent from them. A subject who consumed alcohol in the past 12 months was taken as the criteria for defining alcohol use. Data on hazardous level drinking (items: frequency of drinking, quantity and frequency of heavy drinking), dependence symptoms (items: an impaired control over drinking, an increased salience of drinking and morning drinking) and harmful alcohol use (items: guilt after drinking, blackouts, alcohol–related injuries and others which were concerned with drinking) were assessed, based on the scoring of above items in respective categories. Total scores of 8 or more were recommended as indicators of hazardous and harmful alcohol use, as well as possible alcohol dependence.Data entry and analysis was done using Microsoft Excel and Epi Info. The findings were expressed in terms of proportions and mean. Association of selected demographic variables with the risk levels of the subjects and statistical significance was estimated in terms of Odds Ratio and its 95% confidence interval and Chi square test.

## RESULTS

A total of 160 adult males who attended the OP Clinic of RHTC, Mamandur were included in the study. Mean age of the subjects was $47\pm15.1$ S.D. Majority of the study participants (80.63%) were married. Around 49 (30.63%) of the subjects were illiterate. The skilled and unskilled workers constituted 51% of the study population. Almost half of the study participants (46.25%) belonged to the Upper Middle class. Illiterates constituted 32.5% of the study population.

According to AUDIT scoring, majority of the study participants around 58% showed low risk drinking or abstinence. Overall, the prevalence of alcohol use was found to be 42%. Prevalence of hazardous or harmful use

of alcohol was 9.4% and alcohol dependence was 5.6%. This has been depicted in Table 1.

**Table 1: Risk level of alcohol use among study participants**

| RISK LEVEL | INFERENCE | NUMBER (N=160) | % |
|---|---|---|---|
| I | Low Risk drinking or Abstinence | 95 | 59.4 |
| II | Alcohol use in excess of low risk guidelines | 41 | 25.6 |
| III | Harmful and hazardous drinking | 15 | 9.4 |
| IV | Alcohol Dependence | 9 | 5.6 |

**Table 2: Association of certain demographic variables with the risk levels of the study participants**

| DEMOGRAPHIC VARIABLE | HIGH RISK n (%) | LOW RISK n (%) | OR (95% CI) | p value |
|---|---|---|---|---|
| **1. Education** | | | | |
| Illiterate | 23 (47) | 26(53) | 1.39 | 0.43 |
| Literate | 43 (38) | 68 (62) | (0.7-2.76) | |
| **2.Occupation** | | | | |
| Employed | 65(43) | 85 (57) | 6.88 | 0.8 |
| Unemployed | 1(10) | 9 (90) | (0.85-55.7) | |
| **3. Marital status** | | | | |
| Single and Widower | 13 (42) | 18 (58) | 1.04 | 0.9 |
| Married | 53 (41) | 76 (59) | (0.47-2.29) | |
| **4. Socio Economic Status** | | | | |
| Upper Middle Class | 20 (49) | 21 (51) | 1.29 | 0.6 |
| Lower and Middle class | 54 (43) | 73 (57) | (0.64-2.6) | |

The illiterate study participants had higher high-risk alcohol use when compared to the literate participants [OR=1.39, 95% C.I =0.7-2.76]. Those employed had higher high-risk alcohol use when compared the unemployed patients[OR=6.88, 95% C.I=0.85-55.7]. The above differences were not statistically significant. The difference in prevalence of high-risk alcohol use among Single/widower participants (42%) and married patients (41%) with an Odds Ratio of 1.04 was not statistically significant. There was no statistical difference in the prevalence of high-risk alcohol use among patients belonging to upper class (49%) and Lower/middle class (43%). These details are given in Table 2.

## DISCUSSION

The study included 160 adult males who attended the OP clinic of RHTC, Mamandur. The mean age of the study participants in this study was found to be $47\pm15.1$ S.D which is higher than what was seen in a study done by Dutta et al in rural Tamil Nadu. [4]Majority of the study participants were married (80.63%) which is similar to another study done in rural south India by John et al in 2009[5]. In this study the overall proportion of alcohol use was found to be 42%. This is similar to the findings of the study done by Dutta et al where prevalence was 37.1% [4]. The current study shows that illiterate participants (47%) showed high-risk alcohol use. This is high when

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compared to a study in Mumbai by Prakash et al where in prevalence was 25.6% among illiterate participants.[6]The current study shows a higher rate of alcohol consumption among subjects belonging to upper class (49%) which was found to be different from a previous study wherein subjects belonging to lower class were found to have higher rate of alcohol consumption (46%).[4]

## CONCLUSION

The present study was undertaken with the objectives to assess the proportion of alcohol use among adult males attending the OP clinic of RHTC, Mamandur and to compare the demographic variables with the risk levels of the subjects. Overall, the proportion of alcohol use was found to be 42% where the prevalence of hazardous or harmful use of alcohol was 9.4% and alcohol dependence was 5.6%. Increasing awareness among the population and necessary rehabilitation and self-help programs starting from the primary care level will help in bringing down the prevalence of alcoholism and in turn the harmful effects caused due to alcohol to the individual and his/her family.

## RECOMMENDATIONS

Strengthening primary care services and adopting simple screening tools for Alcohol Use Disorder through the incorporation of simple screening tools like AUDIT in national programs, can be an efficient intervention to tackle the problem of alcohol use.

Conflict of Interest: None

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