

Influence of education and family history of alcoholism on alcohol consumption among male alcoholics

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Abstract-

INTRODUCTION

Alcohol is the most common chemical substance intentionally used by individuals to alter mood and relieve chronic pain. Early detection of male drinkers with health problems due to alcohol consumption would reduce morbidity of disease. Objectives of the present study are 1) To examine the influence of education on alcohol consumption, 2) To examine the influence of family history of alcoholism on alcohol consumption among male alcoholics.

MATERIALS AND METHODS

The subjects were 124 men aged ≥ 20 years. Face-to-face interviews were used to identify male alcoholics who attended health camp held at Udipi, Karnataka state, India. The Alcohol Use Disorders Identification Test (AUDIT) questionnaire was used as the alcohol-screening instrument.

RESULTS

Significant increase ($P < 0.001$) in subjects with high AUDIT score was observed in group I (illiterates) when compared to group III (graduates). Similarly significant increase ($P < 0.001$) in subjects with high AUDIT score was observed in group II when compared to group III. No association between family history and alcohol consumption was observed in the three groups.

CONCLUSION

Frequency and quantity of alcohol consumption is less in subjects who are educated. Hence education brings awareness about harmful effects of alcohol consumption and therefore forms an important component in health status of male alcoholics.

Index Terms- alcohol use disorder, education, family history, alcohol abuse, binge drinking

INTRODUCTION Heavy episodic drinking poses a danger of serious health and other consequences for alcohol abusers and for others in the immediate environment [1]. Alcohol use disorders are defined as alcohol abuse or dependence according to psychiatric diagnostic criteria [2]. Problem drinking in people raises mental and physical issues. Alcohol consumption causes gastritis, gastro-esophageal reflux disorder and peptic ulcer. In addition heavy drinking exacerbates diseases of the digestive system such as gastritis, cirrhosis, liver cancer, oral cancer, esophageal cancer and pancreatitis. It also increases the morbidity rates of cardiovascular diseases such as atrial fibrillation, hypertension and stroke. It elevates the morbidity rates of depression, anxiety disorders and suicidal ideation [3,4].

Chronic alcohol abuse is associated with Wernicke-Korsakoff syndrome. Study by Go et al., found that men who frequent alcohol venues have high rates of sexually transmitted diseases including HIV infection [5]. Chenitz et al., have reported that the prevalence rate of alcohol abuse will increase in direct proportion to the increase of elders because current middle aged generation is much more accustomed to alcohol consumption [6]. But study by Lamy et al., observed that both older adults and youngsters use alcohol to feel different [7]. Adults want to relax, to feel good, to "break the ice" in increasingly difficult social situations, to forget problems, losses or loneliness and to eradicate or minimize chronic pain [8,9]. The above mentioned studies indicate that individuals irrespective of age consume alcohol to overcome daily stresses and chronic diseases which cause pain. Alcohol consumption is often related to 'celebration', 'high living' and some individuals often boast of their large capacity to drink.

Wechsler et al., found that episodic drinking and frequent binge drinking in younger adults is associated with driving after alcohol consumption, engaging in unplanned, unsafe sexual activity, poor academic performance and damage public property [10]. Another study by Sanjuan et al., observed that younger males were more likely to use alcohol, tobacco and other drug use [11]. The same study observed rate of substance use in younger males is similar to or higher than emergency department patients.

A study at university hospital in the Netherlands found that only 33% of elderly alcohol abuse patients were identified by clinicians [11]. This indicates major percentage of alcohol abuse patients are not discovered by clinicians. The situation observed among elderly patients might exist in younger individuals also. Therefore it is necessary to identify patients with alcoholism in primary care settings so that they can receive guidance and proper treatment [12]. Touvier M et al., have concluded that medical advice for people with personal or family history of alcohol related diseases including cancer should be strengthened [13]. Hence it is important to know the causes for alcohol consumption. Nurturing family values, better socioeconomic status, provision of education and financial support to children by parents may prevent an individual to consume alcohol. Ryou et al., observed that education can enhance the demand for preventive health check-ups and improves communication with health practitioner [14].

Therefore this study was undertaken to find out the influence of education and family history on alcohol consumption among male alcoholics in Udipi district, India.

MATERIALS AND METHODS

Male alcoholics (N=124) were recruited during health camps conducted in Udupi district, Karnataka, South India. Male alcoholics were divided into three groups based on their educational background. Illiterate alcoholics were merged into group I (N=35), alcoholics who had passed 7th standard and onwards to completion of II year Pre-University College were merged into group II (N=41). Alcoholics who had obtained their bachelor degree were grouped under group III (N=48). The study was approved by the Institutional Ethics Committee.

The Alcohol Use Disorders Identification Test (AUDIT) questionnaire was used to screen, assess the severity of alcohol consumption and alcohol dependence. Statements present in the questionnaire were explained to participants in their native language.

RESULTS

Raw data was entered into Microsoft Excel and are represented as mean and standard deviation. The statistical significance level was calculated by the Mann-Whitney *U* test using SPSS (Version 16.0).

The mean age \pm SD of the alcoholics was 34.6 ± 6.9 years. Of the 124 subjects, family history of alcoholism was found in 54 alcoholics and 53 alcoholics had a smoking habit. Thirty two alcoholics were on antidepressants and 24 were on various medications due to chronic illnesses.

In the present study AUDIT questionnaire was used. If an individual obtains a total score of 8 or more indicates hazardous alcohol use and possible alcohol dependence. Similarly, a total score of 9 or more reflects greater severity of alcohol problems.

Out of 35 alcoholics in group I, 30 had an AUDIT score ≥ 15 and 5 alcoholics scored less than 15. In group II (N=41) 31 alcoholics had an AUDIT score ≥ 8 and 10 scored ≤ 2 . In group III (N=48), 42 alcoholics scored < 2 and 6 alcoholics had an AUDIT score ≥ 8 . Highest number of alcoholics with an AUDIT score of ≥ 15 were present in group I.

Mann-Whitney *U* test was performed and significant increase ($P < 0.001$) in AUDIT scores among alcoholics was observed in group I when compared to group III. To compare AUDIT scores between group II and group III, Mann-Whitney *U* test was used. We observed a significant difference in AUDIT scores ($P < 0.001$, Figure 1).

To see the influence of family history of alcoholism on alcohol consumption in all three groups, Chi-square test was performed and no association between family history and alcohol consumption was observed. To identify association between education status and smoking habit of men in all three groups, Chi-square test was used and we found no association.

DISCUSSION

Alcohol consumption affects vital organs in the body including central nervous system. Highest number of alcoholics with an AUDIT score of ≥ 15 were present in group I, therefore vigorous interventions are necessary for this particular group of alcoholics when compared to other groups.

Screening problem-drinking patients at an earlier stage encourages prevention. Intervention by confrontation is a technique that has been used successfully with younger alcohol-dependent patients and may be used with selected elderly

patients. In this technique patient's relative or parents gather to convince the alcohol abuser that his or her use of alcohol has been harmful to that individual and relationships in near future. Components of therapy include detoxification, education, group therapy and Alcoholics Anonymous [6]. Berning et al., observed that incorporation of professional health advice increased the probability that alcohol drinkers reduced their alcohol consumption [15].

Ryou et al., have suggested that the AUDIT score is superior to Michigan Alcoholism Screening Test and cut down, annoyed, guilty, eye opener questionnaire [14]. Hence AUDIT score was used as a screening tool in this study.

Results in the present study suggested educated subjects showed (group III) decrease in frequency and quantity of alcohol consumption when compared to group I and group II. Increased number of male alcoholics with an AUDIT score of ≥ 15 in group I might be due to unawareness and half-knowledge about complication of alcohol consumption, easy availability of alcohol and lower socioeconomic status.

Significant increase in number of male drinkers with AUDIT ≥ 8 in group II when compared to group III is probably due to lower education status which in turn leads to low socioeconomic status. However, results reported by Marmot et al., and Hulshof et al., suggests no relation between low socioeconomic group and excessive drinking among men [16,17]. This is due to cutoff point for heavy alcohol consumption is different for the above mentioned studies, which could have influenced the findings. Van Oers et al., observed that very excessive drinking patterns in men showed significant differences between different educational levels [18]. Similar observations were found in the present study. But Hulshof et al., have observed that lower socioeconomic status is accompanied by a higher prevalence of indicators of an unhealthy life style.

In the present study, there was no association between family history of alcoholism and alcohol consumption, this probably indicates cultural factor has a role. Chitty KM et al., observed alcohol and tobacco consumption are the risk factors for decreased anti-oxidant capacity in bipolar disorder patients [19]. Decreased anti-oxidant results in reduced anterior cingulate cortex-glutathione concentration among bipolar disorder patients. However in the present study none of the individuals were suffering from bipolar disorder.

In conclusion, the present study investigated the influence of education status on alcohol consumption. We observed that education forms an important component in health status of elderly male drinkers. However there was no association between family history of alcoholism and alcohol consumption among male drinkers.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

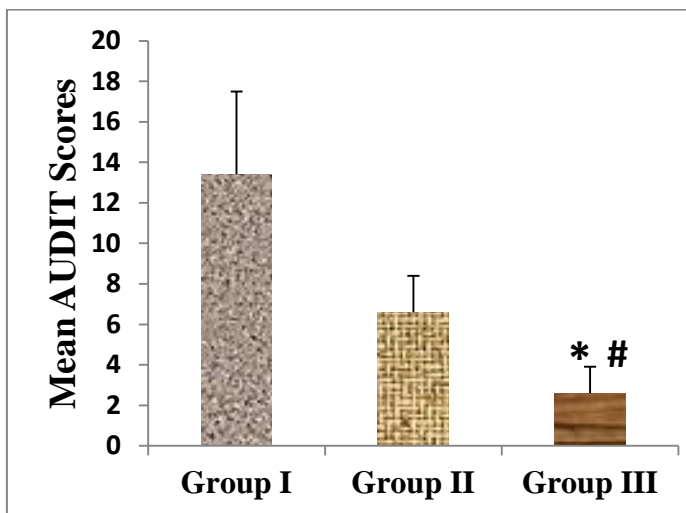


Fig-1: Mean AUDIT scores in three groups. AUDIT scores are represented as mean ± standard deviation. * $P < 0.001$ compared with group I and # $P < 0.001$ compared with group II. Numerical data for figure 1. Mean AUDIT score in group I is 13.4±4.1, group II is 6.6±1.8 and group III is 2.6±1.3.

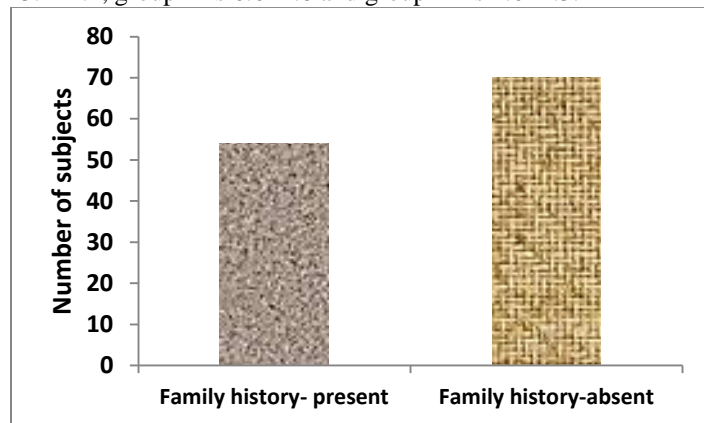


Fig-2: Presence and absence of family history among alcoholics when three groups were merged.

Numerical data for figure 2. Presence of family history of alcoholism in all three groups when merged is 54 and absence of family history of alcoholism in all three groups when merged is 70.

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