



Knowledge and Attitude Regarding the Effects of Alcohol among Pre-University Students in a Selected College, Bangalore

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Abstract Introduction: Adolescent alcohol use is a public health problem with negative physical, psychological and social impacts. Pre-university students are especially at risk due to increased independence, peers and new social environments. **Aim:** The aim of the study was to determine the knowledge and attitude among the pre-university students regarding the effect of alcohol. The quantitative cross-sectional survey design was used in this study, which involved 100 students in the pre-university of Lowry Memorial College, Bengaluru, using a purposive non-probability sampling technique. The self-structured questionnaire was used for data collection. Analysis was done using descriptive and inferential statistics such as the chi-square test and Pearson's correlation coefficient. **Results:** Most students were between 16 and 17 years old (58%) and male (93%). Alcohol effects: Most students had average knowledge (81%), 11% had poor knowledge and 8% had good knowledge. In terms of attitudes, 35% of the students were found to have favourable attitudes and 65% were moderately favourable. The mean knowledge score was 14.96 ± 3.87 and the mean attitude score was 23.88 ± 2.27 . A weak negative and not significant correlation between knowledge and attitude score was observed ($r = -0.029$, $p > 0.05$). There was only a significant association between the source of health-related information and knowledge scores ($\chi^2 = 10.815$, $p < 0.05$) among the baseline variables. **Conclusion:** The overall level of knowledge of pre-university students towards the bad effects of alcohol was moderate and the attitude of the students was somewhat positive. There was no significant correlation between knowledge and attitude.

Key Words Knowledge, Attitude, Pre University Students

INTRODUCTION

Alcohol intake is a serious public health problem that can have physiological, psychological and social consequences. Alcohol is a psychoactive drug that slows down the central nervous system, which affects judgement, thinking and coordination. In the case of alcohol, adolescents and young adults are at a higher risk of suffering from its harmful effects because their brains are still developing. Researchers have found a link between alcohol consumption among young people and high-risk sexual behaviours, substance abuse, antisocial behaviours and road traffic accidents [1,2]. Peer pressure, mental health issues, problems with family relationships and educational underachievement are all factors that increase the risk of alcohol use [3].

Underage drinking and the use of alcohol by pre-university students have become a major concern around the world. Alcohol consumption often coincides with other health-risk behaviours and has been linked to lower academic performance [4]. Research in Mexico, Cuba and Thailand suggests that many

students start drinking before they reach the legal drinking age. Alcohol consumption is often associated with other health-risk behaviours and starting to drink at an early age has been linked to lower academic performance [5].

Studies have also noted that there is less alcohol use in India and other Asian countries than in European countries or the United States, with up to 90% of college students reporting drinking and 25-50% reporting binge drinking [6]. Knowledge and attitudes are therefore critical to be assessed through structured questionnaires to identify gaps and develop a good prevention strategy [7].

The pre-university student population is a vital population to study and intervene in alcohol-related issues. This is a time of increasing independence, exposure to new social settings and increased peer influence, which can increase the risk of alcohol use among students. The amount of alcohol consumption by this population has been well documented in various settings and the importance of school-based health promotion programmes addressing their vulnerabilities is underlined.

The present study was conducted to determine the knowledge and attitude of pre-university students about the effects of alcohol at a selected college. Pre-university alcohol consumption and its harmful effects are more likely in pre-university students and knowledge and attitudes are important factors influencing their alcohol consumption. The study will help to address the current gaps in knowledge and attitudes to provide baseline data on which culturally appropriate and evidence-based educational interventions can be developed. The results could help teachers, healthcare providers and policymakers develop successful initiatives aimed at stopping students from drinking and encouraging healthy behaviours.

Objectives

- To assess the level of knowledge regarding the use of alcohol among pre-university students
- To assess the attitude regarding the use of alcohol among pre-university students
- To determine the association between the level of knowledge and attitude regarding the use of alcohol among pre-university students and their selected baseline variables

To determine the correlation between knowledge and attitude regarding the use of alcohol among pre-university students.

METHODS

Research Design and Setting

The quantitative research approach and cross-sectional survey design were used to evaluate knowledge and attitudes about the use and effect of alcohol among pre-university students. Lowry Memorial College was chosen for the study because it was feasible, easily accessible and had participants available.

Population

The target population were pre-university students, while the accessible population were students of the selected college. A sample size of 2000 was used with a 95% confidence level ($Z = 1.96$) and a 10% margin of error, based on a population of 2000 and an expected proportion of 50%. The sample size was calculated to be 92 and if there was a possibility of non-response, the sample size was rounded up to include 10% more, thus 100 students. Participants were recruited using a purposive non-probability sampling method. Students who gave consent to participate, who had time at the time of data collection and who could comprehend English were included in the study. Previously involved students in alcohol-related research or alcohol training sessions were eliminated.

Variables and Data Collection Instruments

The study variables were alcohol effects, knowledge and attitudes. Baseline variables were age, sex, religion, educational qualification, parents' occupation, number of siblings, family income and being on social media. A self-structured instrument was used to collect the data, which was designed based on a thorough review of the literature and consultation with experts.

The instrument was divided into three sections: Section A, 10 items of baseline information about the students; Section B, 30 multiple-choice items of knowledge about the effect of alcohol; and Section C, a 10-item attitude scale to assess the students' attitudes toward alcohol use.

The validity and reliability pilot study is conducted. Validity, reliability and the pilot study have been completed. The instrument was revised as per the experts' recommendations and it was checked for content validity by seven experts. The pretesting was done to evaluate the clarity and feasibility of the text. The split-half method and Spearman-Brown prophecy formula based on responses of 10 students resulted in a reliability coefficient of 0.816, which is considered excellent internal consistency. In March 2025, a pilot study was carried out with 10 pre-university students in the same institution to test the feasibility of the procedures of the study; these students did not form part of the main study.

Data Collection Procedure

The study was conducted after obtaining administrative permission from the college and informed consent from the participants; a structured questionnaire and attitude scale were used to gather baseline information, as well as knowledge and attitudes regarding the effects of alcohol. At the end of data collection, an information booklet about the impact of alcohol was given to all participants.

Statistical Analysis

Descriptive and inferential statistics were used for analysis of data. Data were summarised using frequencies, percentages, means and standard deviations. Chi-square tests were used to determine the association between knowledge and attitude scores and selected baseline variables. The correlation between pre-university students' knowledge and attitude scores on alcohol use was evaluated using Pearson's correlation coefficient.

RESULTS

Demographic Variables

Table 1 shows the frequency and percentage distribution of pre-university students based on their demographic characteristics. The majority of the students, 58%, were aged 16–17 years and 93% were male. As regard religion 54% were Hindu, 34% Christian and 12% Muslim. There were 53% students in Class 11. Of these, 80% of the students were from nuclear families with monthly income ranging between ₹10000 and ₹20000. 53% of respondents lived in urban regions. Of the students, 62% indicated having previous knowledge of alcoholism and 68% indicated having a family history of alcoholism. The primary source of health information was social media, reported by 58% of the students, followed by family and friends, reported by 31%.

Knowledge and Attitude

Table 2 shows that the majority (81%) of the pre-university students had an average level of knowledge about the effects of alcohol consumption, while 11% had poor knowledge and 8% had excellent knowledge. Most students had a favourable (35%) or moderately favourable (65%) attitude towards the effects of alcohol.

Table 1: Distribution of Pre-University Students According to Baseline Variables (N = 100)

Baseline Variables	Categories	Frequency	%
Age (years)	16-17 years	58	58.0
	18-19 years	42	42.0
Gender	Female	7	7.0
	Male	93	93.0
Religion	Hindu	54	54.0
	Christian	34	34.0
	Muslim	12	12.0
Education	Class 11	53	53.0
	Class 12	47	47.0
Type of Family	Nuclear	80	80.0
	Joint	17	17.0
	Others	3	3.0
Monthly Family Income (₹)	Below 10,000	20	20.0
	10,000–20,000	43	43.0
	Above 20,000	37	37.0
Residence	Urban	53	53.0
	Rural	26	26.0
	Semi-urban	21	21.0
Previous Knowledge on Alcoholism	Yes	62	62.0
	No	38	38.0
Family History of Alcoholism	Yes	68	68.0
	No	32	32.0
Source of Health-Related Information	Family and Friends	31	31.0
	Social Media	58	58.0
	Others	11	11.0

Table 2: Classification of Pre-University Students Based on Their Knowledge and Attitude Levels (N = 100)

Variable	Category	Score Range	F	%
Knowledge Level	Good	21–30	8	8.0
	Average	11–20	81	81.0
	Poor	0–10	11	11.0
Attitude Level	Favourable	25–30	35	35.0
	Moderately Favourable	18–24	65	65.0
	Unfavourable	10–17	0	0.0

Table 3: Correlation between Knowledge and Attitude Scores

Variables	Mean	SD	Pearson's Correlation Coefficient (r)	Table Value (r)	p value	Significance
Knowledge Score	14.96	3.877	-0.029	0.197	> 0.05	NS
Attitude Score	23.88	2.271				

Table 4: Association with Knowledge Scores and Baseline Variables

Baseline Variables	χ^2 Value	df	p Value	Significance
Age (years)	0.120	2	>0.05	NS
Gender	1.766	2	>0.05	NS
Religion	3.106	4	>0.05	NS
Education	1.569	2	>0.05	NS
Type of Family	2.637	4	>0.05	NS
Monthly Family Income	2.594	4	>0.05	NS
Residence	0.873	4	>0.05	NS
Previous Knowledge on Alcoholism	3.808	2	>0.05	NS
Family History of Alcoholism	1.497	2	>0.05	NS
Source of Health-Related Information	10.815	4	<0.05	Significant*

Table 3 showed a very weak negative correlation between knowledge and attitude scores ($r = -0.029$) and it was not statistically significant ($p > 0.05$). This suggests there was no significant correlation between knowledge and attitudes to the effects of alcohol in pre-university students.

Table 4 indicates that only the source of information on health matters was significantly associated with the scores of the knowledge questions ($\chi^2 = 10.815$, $df = 4$, $p < 0.05$). The other baseline variables, such as age, gender, religion, education, type of family, monthly family income, residence, previous knowledge on alcoholism and family history of alcoholism, were not significantly related to knowledge scores ($p > 0.05$).

DISCUSSION

This current study revealed that most of the pre-university students (81%) had average knowledge about alcohol's effects, 8% of them had excellent knowledge and 11% had poor knowledge. The mean knowledge score was 14.96 ± 3.88 and the mean percentage was 49.9%, which reflected a moderate level of knowledge. These results are aligned with past research which has found that the knowledge about alcohol and substance use among adolescents and young students is inadequate to moderate [8,9]. In one study, most school-going adolescents had poor knowledge about substance use [8], while the other study reported that more than 70% of high school students knew about the harmful effects of alcohol [9]. These variations could be due to differences of cultural and educational background. It can be suggested, based on the moderate knowledge found in the present study, that there is a need for targeted health education interventions among the pre-university students [10,11].

In attitude, 65% had a moderately favourable attitude, while 35% had a favourable attitude towards the effect of alcohol and none had an unfavourable attitude. The mean attitude score was 23.88 ± 2.27 with a mean percentage of 79.6%, reflecting a general positive attitude. This is in line with research that indicates that teen drinking attitudes are moderate or permissive [12,13].

The Pearson correlation analysis showed that there was a very weak negative correlation between the knowledge and attitude scores ($r = -0.029$) and this correlation was not statistically significant ($p > 0.05$). This means that there was no significant relationship between knowledge and attitudes about the effects of alcohol. This is congruent with similar findings in which enhanced knowledge does not always lead to attitudinal change because the influence of peers, social norms and the environment also influence adolescent perceptions and behaviours [14,15].

The source of health-related information was the only baseline variable that was significantly associated with knowledge scores ($\chi^2 = 10.815$, $df = 4$, $p < 0.05$); all other baseline variables were not significantly associated ($p > 0.05$). The source of information is a significant finding in understanding adolescents' perceptions of alcohol-related effects. These findings are consistent with those of past research indicating that the source and quality of health information are important determinants of knowledge among youth [16]. The results highlight the importance of developing more credible and accessible sources of health information for pre-university students.

CONCLUSION

The present study concluded that pre-university students had a moderate level of knowledge regarding the effects of alcohol, with most students demonstrating average knowledge and a moderately favourable to favourable attitude toward alcohol-related harms. There was no significant correlation between knowledge and attitude, indicating that knowledge may not exert a direct influence on attitude. Of the selected baseline variables, only the source of health-related information was significantly related to knowledge scores, which stresses the need for credible information sources. The results indicate that there is a need to implement school-based educational interventions to increase knowledge and promote more protective attitudes toward alcohol use among adolescents.

Limitations

The study was conducted in one pre-university college at Bangalore with a cross-sectional design and purposive type of non-probability sampling technique; the generalisability of the result may be limited. Data were gathered using questionnaires which were self-reported and thus open to response bias. Furthermore, this study had a limited scope, focusing solely on students' knowledge and attitudes towards the effects of alcohol, rather than their alcohol use behaviours.

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