
Level of Physical Activity and Relationship with Alcohol Use Among Youth: A Cross-sectional Study

Research Article

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ABSTRACT

Background: Alcohol use and physical inactivity are major risk factors for noncommunicable diseases. Adequate physical activity keeps one healthy, but a sedentary lifestyle may contribute to other unhealthy practices like Alcohol use. They address them more strategically.

Objectives: To assess the level of physical activity and identify its association with Alcohol use among college-going youth at Rama University, Kanpur.

Material & Methods: Data on physical activity and Alcohol use were collected from students aged 18-24 studying medical and non-medical courses at Rama University through an online questionnaire. We used a self-modified questionnaire based on the Global Adult Alcohol Survey (GATS) to assess Alcohol use status and the GPAQ (Global Physical Activity Questionnaire) to assess physical activity.

Results: The chance of consuming Alcohol is significantly lower among physically active respondents.

Conclusions: Our findings indicate a significant relationship between physical activity and Alcohol use among youth. Promotion of physical activity may be a useful educational tool for reducing Alcohol use.

Introduction

Alcohol use is an important modifiable risk factor for major non-communicable diseases NCDs [1]. Globally, more than 1.1 billion people use Alcohol, which is significantly more common among males than females. This alarming number represents about one-third of the global population aged 15 years and above [2]. The problem is of particular concern in India, where tobacco-related mortality is highest. According to

the Global Adult Alcohol Survey 2016-17, current Alcohol users in India among youth aged 15-24 years is 12.4% [3,4]. People who start using Alcohol at an early age are more likely to develop serious health complications [5].

According to the ICMR-INDIAB study, 54.4% of the Indian population surveyed were found to be physically inactive [6]. Recently, India's performance was fairly poor in the concurrent preparation of Report Cards on the physical activity of children and youth in 38 world countries [7].

Growing evidence reveals a bidirectional relationship between Alcohol use and physical activity. Another systematic review shows that exercise seems to have a protective effect against smoking as well as a supportive impact on smoking cessation treatments[8].

Aims and Objective

This study assesses the relationship between tobacco use and physical activity among college-going youth at Rama University, Kanpur.

MATERIAL&METHODS

Study Type: Cross-sectional study.

Study Population: A college-based survey was conducted among the youth population.

StudyArea: RamaUniversity, Kanpur.

PeriodofStudy:01October,2023 to 28 October, 2023[4Weeks]

SampleSize: 200

Sampling Method: Simple Random Method

inclusion criteria:

- Collegegoing students from 18 years up to 24 years.
- Those present at the time of data collection.

exclusion criteria:

- The students who didn't give consent for participation in study. Students with age below 18 years and 24 years and above.

Strategy for collection: All students were divided into two strata – Medical & Non-Medical. The field investigator (FI) visited the students and explained the needs, objectives, and methodology for the study. Then a google form was shared among the students. The respondents were briefed up about the study objectives and were encouraged to clarify doubts before or during filling up the questionnaire. No names or emails were collected to maintain the anonymity of the respondents. We used a self-modified questionnaire based on the Global Adult Alcohol Survey (GATS) for assessing Alcohol use status and GPAQ (Global Physical Activity Questionnaire) for assessment of physical activity.

RESULTS

The study included 200 students aged 18-24 from medical and non-medical courses. The majority were males (72.5%). Current alcohol users were 13%, and least physical activity was observed in 27.5%. [Table1] The socio-demographic profile along with Alcohol use and level of physical activity of respondents is shown in [Table-1]

The relationship between physical activity and Alcohol use among youth [Table] shows that non-alcohol users were physically more active (moderately active, 58.6%

+veryactive,15.5%=74.1%) compared to Alcohol users (moderately active, 34.6% + very active, 26.9% = 61.5%). The inactivity level was higher among Alcohol users (38.4%) as compared to non-alcohol users (25.8%).

The relationship between Gender and Alcohol use [Table 4] shows that there were more Alcohol users in males (69.4%) as compared to females (30.6%).

Gender: Do You Want to Quit alcohol to enhance your physical activities?

How much time has passed since you started consuming alcohol? Have you noticed a reduction in your physique or stamina due to consuming alcohol?

TABLE 1: SOCIO-DEMOGRAPHICPROFILEOFCOLLEGEGOINGYOUTHOFRAMAUNIVERSITY, KANPUR

VARIABLE		Number(N=200)	%
GENDER	Male	112	56.5%
	Female	88	43.5%
AGE GROUP(YEARS)	18-20	104	52.5%
	21-22	54	27.%
	23-24	42	21.5%
ALCOHOL USE(PRESENT)	Non-Alcoholusers	170	85%
	Alcoholusers	30	15%

ALCOHOL USE(PAST)	Non-Alcohol users	166	83%
[LAST CONSUMPTION OF			
ALCOHOL>1YEAR BACK]	Alcohol users	34	17%
	Not so Active	55	27.5%
PHYSICAL ACTIVITY LEVEL	Moderately Active	109	54.5%
	Very Active	36	18%

TABLE 2: RELATIONSHIP OF PHYSICAL ACTIVITY AND ALCOHOL USE AMONG YOUTH

Physical Activity Level	Non-Alcohol users (N=170)		Alcohol users (N=30)	
	Numbers	%	Numbers	%
Not so Active	44	22%	12	6%
Moderately Active	100	50%	10	5%
Very Active	26	13%	8	4%

TABLE 3: RELATIONSHIP OF GENDER AND PHYSICAL ACTIVITY

Gender	Physical Activity Level					
	Not so Active (N=55)		Moderately Active (N=109)		Very Active (N=36)	
	Numbers	%	Numbers	%	Numbers	%
Male	44	80%	76	69.7%	25	69.4%
Female	11	20%	33	30.3%	11	30.6%

TABLE 4: RELATIONSHIP OF GENDER AND ALCOHOL USE

			Non-Alcohol users (N=174)		Alcohol users (N=26)	
Gender	Male	Female				
			Numbers	%	Numbers	%
			98	57.6%	22	83.4%
			72	42.4%	8	26.6%

DISCUSSION

The present study was an attempt to assess the level of physical activity and its relationship with Alcohol use. We found that almost one-fourth of the participants were physically inactive, and almost one-fourth of the participants were exposed to tobacco. Both these variables showed significant inverse associations in the study.

Another finding observed in the study was a significant difference in physical activity levels among males and females, with females showing lower odds of involvement in physical activity. Other studies have reported higher physical activity levels in males than females[9].

The significant inverse relationship between Alcohol use and physical activity observed in our study is supported by several studies, including those conducted in 21 countries of Europe and in the United States, where a lower likelihood of smoking was associated with regular physical exercise (9). A study conducted in India showed an increased prevalence of smoking among individuals who didn't exercise in their leisure time as compared to individuals who did exercise in their leisure time[10].

Conclusion & Recommendation

The overall prevalence of Alcohol use among college-going youth was 17% with significantly more among males, and the level of physical inactivity was 27.5%.

The incorporation of interventions related to physical activity in the community and various settings (schools, offices) should be promoted to reduce health risk behavior, including Alcohol use. Regular physical activity and counseling for discouraging Alcohol use should be integrated with the academic curriculum of schools and colleges, which will help us achieve Goal 3 of Sustainable Development Goal 2030, i.e., Ensure healthy lives and promote well-being for all at all ages [11].

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