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Original Article

Awareness Among Adolescents Towards Hazardous Effect of Tobacco Consumption.

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Abstract

Introduction: Typically, tobacco use begins in adolescence and persists throughout maturity. The purpose of this study was to determine children's awareness of the harmful effects of tobacco and areca nut consumption in a particular school in Jaipur, Rajasthan.

Materials & Methods: For the study, a closed-ended, anonymous self-administered questionnaire was created. Written informed consent was acquired after school principals were contacted. There were thirty pupils enrolled in classes seven through twelve. SPSS 16.0 and Microsoft Excel were used to analyze the data. Cramer's V was used to examine the degree of correlation between the awareness of negative consequences and the use of tobacco products, while the chi-squared test was used to look for any differences between the responses of consumers and non-consumers.

Results: Of the thirty students, 84% believed that tobacco usage was detrimental to one's health, while only 3% disagreed. Overall, 65% of respondents knew that smoking caused cancer, 7% said it caused breathing difficulties, 5% said it caused heart problems, 0.3% said it caused paralysis, 4.3% said it produced no health concerns, and 18% said it caused many problems. Regarding the media's participation, 78% reported seeing a lot of anti-smoking warnings, 15% reported seeing a few, and 5% reported seeing none at all. In terms of media exposure ($p<0.001$), classroom discussions ($p<0.001$), and general awareness ($p<0.001$), there was a statistically significant difference between tobacco users and non-users but a weak association between awareness and tobacco consumption was identified ($p<0.05$).

Conclusions: Awareness of the negative consequences of tobacco usage among Jaipur schoolchildren.

Keywords: Awareness; Adolescents; Hazardous Effect; Tobacco Consumption

Introduction

One of the world's greatest preventable causes of mortality is tobacco use, which is especially severe in developing countries like India1. In India, over 10% of teenagers between the ages of 13 and 15 claim having ever smoked cigarettes, and nearly half of them say they started using tobacco products before turning 10. It is legal and easy to obtain tobacco.1,2 It plays a major role in both long-term suffering and early mortality. It increases the risk of cancer, dental disorders, chronic obstructive pulmonary disease, and cardiovascular disease.3

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There are other ways to consume tobacco, including smoking and smokeless tobacco3. Cigarettes are popular in cities, but bidi is the most common type in rural areas. Other forms include pipes, cigars, hookahs, and chillum. Pan, pan-masala or gutkha, and mishri3 are the main chewing forms of smokeless tobacco. Tobacco and areca nut are frequently used together.

The majority of individuals are ignorant of areca nut negative effects. Areca nut is known to be mutagenic and to have genotoxic effects on bodily tissues, which can ultimately result in a variety of neoplastic and paraneoplastic diseases. After nicotine, alcohol, and caffeine, areca nut is the fourth most often used psychoactive substance worldwide.4,5

More than one-third (34.6%) of Indians smoke, chew, apply to their teeth and gums, or sniff tobacco, according to the Global Adult Tobacco Survey-India (GATS-India) 2009. Of those who used tobacco, 20.6% only used smokeless tobacco, 8.7% only smoked tobacco, and 5.3% used both smoking and smokeless tobacco3. Typically, tobacco use begins in adolescence and persists throughout maturity. Adolescents are particularly susceptible to risk-taking behavior that might result in substance misuse, according to WHO.6 They are still going through critical periods of growth and development making them vulnerable to nicotine and its harmful effects6. Symptoms of serious addiction can appear within weeks or even days after smoking begins, which can lead to years of tobacco use and dependence.7

Since schoolchildren are the most vulnerable and readily changeable age group, awareness should be raised to lower its incidence. According to a study by Chadda and Sengupta6, it is necessary to gather national data on children's and adolescents' usage of various tobacco products as well as the variables that lead to the development of such dangerous habits. Schools have a significant impact on lowering children's consumption of tobacco and areca nuts. District-level school initiatives and teacher training are part of the National Tobacco Control Program (NTCP).8,9 Despite such programs, a large number of adolescents is still addicted to tobacco in any form. Hence, this study was conducted, using a questionnaire, to determine the level of awareness about the risk associated with tobacco use among students of grades 7–12.10,11

Materials & Methods

This is a cross-sectional study conducted across selected schools in jaipur were approached and written informed consent was obtained from all of them. Students from grades 7–12 were selected for the study and consent was also obtained from them.

Table 1. Distribution of the students

Variable	Category	Frequency (N)	Percentage (%)
Gender	Boys	27	90%
	Girls	3	10%
	Total	**30**	**100%**
Type of Tobacco Use	Smoke	3	10%
	Smokeless	24	80%
	Both	3	10%
	Total	**30**	**100%**

Students were informed about the purpose of the study and assurance was given about confidentiality. An anonymous self-administered close-ended questionnaire was designed for the study. They were asked to fill the questionnaire after they were given a brief explanation about it. The students were included in the study only after receipt of a written informed consent from the principal of the school and oral consent by the student. Any student who was unwilling to participate in the survey or did not understand the questionnaire (shown in the Supplementary File), even after explanation, was excluded.

The collected information was converted into a computer-based spreadsheet and analysed in Microsoft Excel 15.0. Data from 3055 students were analysed. Prevalence was calculated for each question answered. The chi-squared test was applied to analyze any differences between the responses of users and non-users.

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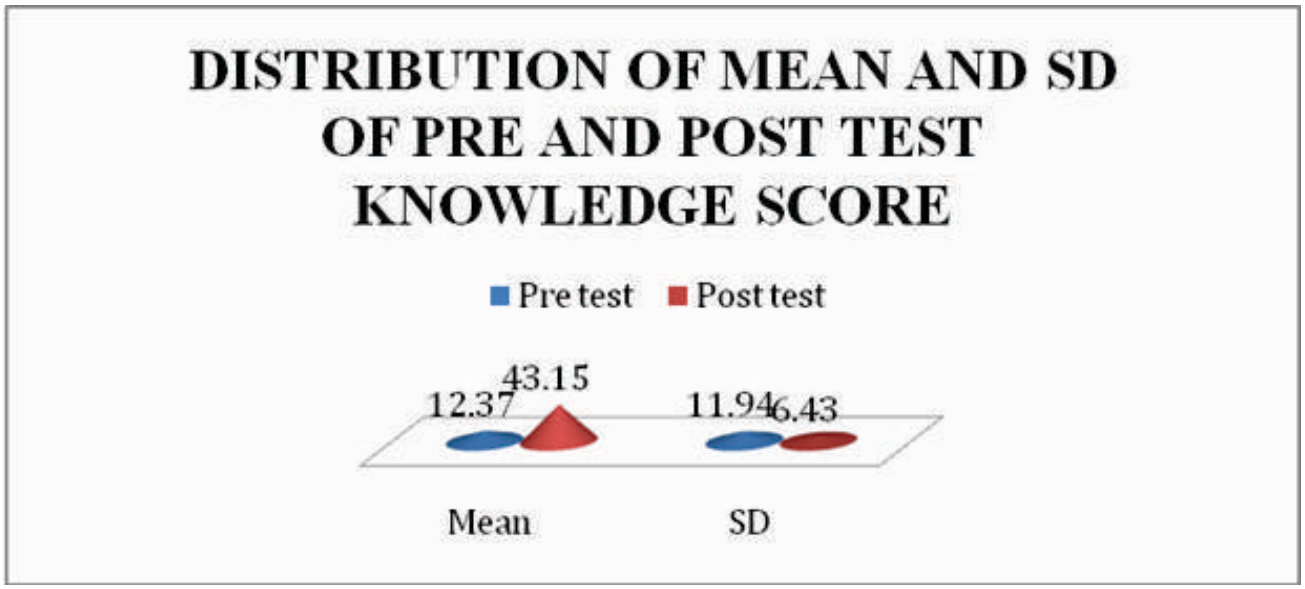
Result

Table 2 presents the association between tobacco use and participants characteristics, awareness and knowledge. The Cramer's V test (with measure φc) was applied to determine the strength of association between the users and non-users for the knowledge

whether passive smoking was harmful or not. There was a weak association between the variables (φc=0.08). Cramer's V demonstrates that the variables have a weak association for awareness that the habit is harmful and watching anti-smoking, chewing tobacco, sopari and alcohol drinking media messages on TV, etc (φc=0.13

Table –2: Distribution and comparison of Frequency, Percentage, Mean and S.D. of Pre-test and Post-test knowledge score of adolescents.

S.No.	Test	Range	Grade	F	%	Mean	SD
1	Pre-test	0-10	Poor	196	65.33%	12.3733	11.947
		11-20	Average	42	14%		
		21-30	Good	26	8.6%		
		31-40	V.Good	22	7.3%		
		41-50	Excellent	14	4.6%		
2	Post – test	0-10	Poor	3	1 %	43.1576	6.4319
		11-20	Average	6	2 %		
		21-30	Good	9	3 %		
		31-40	V. Good	33	11 %		
		41-50	Excellent	249	83%		



and φc=0.0848, respectively). The test revealed a significant difference between the tobacco users and non-users but a weak association for belief that the habit caused cancer, breathing problems, heart problems, paralysis or it did not cause any problems or caused multiple problems (p<0.001, φc=0.198). Chi-square tests revealed a significant difference between tobacco users and non-users and a weak association for

whether they had seen any actors smoking or chewing tobacco or supari or drinking alcohol on screen (p<0.001, φc=0.1) or promotional advertisements (p=0.032, φc=0.067). Chi-squared tests also showed statistically significant differences

for whether their teacher had talked about the dangers of such habits (p<0.001) and for whether there had

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been any discussion about the ill-effects of smoking in class ($p<0.001$). Cramer's V showed a weak

Discussion

This study assessed Indian schoolchildren's knowledge of tobacco and areca nut consumption. Although 3–6% of children might not be aware of the negative consequences of such use, the majority of youngsters were aware of the health repercussions. The current study's findings are consistent with those of Taran et al. (2021) and Tiwari et al. (2022). The authors discovered that between 50 and 90 percent of the kids knew about the negative consequences of smoking. Additionally, 23% of students could not remember any class discussions or instructor presentations about the negative impacts of using tobacco or areca nuts.12,13

Almost half of the students had seen actors consuming tobacco, areca nut or alcohol on TV, in movies or videos, as well as advertisements or promotions for tobacco use. Such actions lead the youth to become more attracted to such products. Tobacco or areca-nut advertising and promotion effectively target young people with images of smokers as trendy, sporty and successful. Characters in the movies or television serials often demonstrate cigarette smoking or alcohol consumption as a routine of daily life. These scenes often stimulate the impressionable mind of the adolescent to adopt similar behaviour.

The results showed a statistically significant difference between tobacco users and non-users, but there was only a weak association. Increasing awareness may lead to reduced consumption in the adolescents as they may have lower awareness levels. Hence, we need to propose new ideas and techniques for spreading awareness and reducing the consumption of tobacco or areca nut. But since the association is only weak, it cannot be said that an increased awareness may lead to reduced consumption.

The current study focused on a small sample. Future studies with larger samples need to be performed. Furthermore, the present study was limited to urban areas of Jaipur, hence studies in rural areas and other parts of the country are warranted.

Conclusion

Although schoolchildren in Jaipur are aware of the negative effects of tobacco and areca nut use, strategies to prevent the use of these products still need to be developed because some of the children continue to use them despite being aware of the risks. Better programs should be created for consumers to support their efforts to quit. Schools should concentrate more on these topics, and regional legislation governing tobacco marketing and advertising should be improved.

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