

Original Research Article

The Impact Of School-Based Programme On Teenagers' Understanding Of The Adverse Health Repercussions Of Alcohol And Smoking

¹Prakash Naregal, ²Vaishali R Mohite, ³Prabhuswami Hiremath, ⁴Shivaji H Pawar, ⁵Ajit A Pawar

^{1,3,4}Assistant Professor, Krishna Institute of Nursing Sciences, Krishna Institute of Medical Sciences Deemed to be University, Karad, Maharashtra, India

²Dean, Krishna Institute of Nursing Sciences, Krishna Institute of Medical Sciences Deemed to be University, Karad, Maharashtra, India

⁵Clinical Instructor, Krishna Institute of Nursing Sciences, Krishna Institute of Medical Sciences Deemed to be University, Karad, Maharashtra, India

Corresponding Author:

Vaishali R Mohite (Prakash.naregal20@gmail.com)

²Dean, Krishna Institute of Nursing Sciences, Krishna Institute of Medical Sciences Deemed to be University, Karad, Maharashtra, India

ABSTRACT

Background: Drinking alcohol and smoking cigarettes are the two most prominent high-risk activities that are prevalent among adolescents in this era. The prevention of unhealthy behaviours in adolescents, such as drunkenness and smoking, is one of the most difficult tasks facing nurses in the 21st century. This is especially true when the adolescents are exposed to the habits of others around them in their environment. The adolescent years present an ideal window of opportunity to educate young people on the hazards posed by high-risk behaviours like smoking and drinking, as well as to instil in them the values and habits that will assist them avoid engaging in such dangerous pursuits in the future. The first goal is to determine whether or not the students at the selected school are aware of the negative impact that smoking and alcoholism have on one's health.

1. To evaluate the efficacy of health education programmes taught in schools regarding the harmful effects of smoking and drunkenness on one's body.
2. To determine whether or not there is a correlation between the level of the adolescent students and the sociodemographic factors that were chosen.

Materials and Procedures: In order to carry out the investigation, an analytical method was chosen to employ. The research was carried out at a secondary school in Nerle, Walawa and Sangali in the state of Maharashtra, India, using a non-probability one-group pre-test and post-test design. The selection of the fifty pupils was done through a method known as purposeful sampling. On the first day, a structured knowledge questionnaire was used for the purpose of collecting data. On the second day, a school-based health education programme on the negative effects of alcoholism and smoking on health among the adolescents was carried out, and on the seventh day, a post-test was administered. The data that was acquired by the

pre and post-test administration was tallied and analysed using descriptive and inferential statistics in terms of the objectives of the study.

Result: Results show that there was a significant difference between the pre-test (Mean-10.56 and S.D. -2.062) and post-test (Mean-19.62 and S.D. -3.225) levels of knowledge regarding the ill effects of alcoholism and smoking among the adolescent boys in the selected school.

The results show that the post-test level of knowledge was significantly higher. At the 0.05 threshold of statistical significance, the t-value that was achieved was higher (21.80) than the table value. There was a statistically significant link between the knowledge scores of adolescent boys and demographic variables, such as the number of smokers in their families, the number of acquaintances who struggled with drinking, and the source of their health information.

Conclusion: The researcher came to the conclusion that the school-based health education programme was beneficial (p 0.05) in improving the level of knowledge among the adolescent boys regarding the negative impacts of drunkenness and smoking.

Keywords: Effectiveness, school based health education program, adolescent boys, alcoholism, smoking, ill effects, health

Introduction

Adolescence is a transitory stage of human development that typically takes place between puberty and legal adulthood. Adolescence is characterised by both physical and psychological changes ^[1]. Substance use disorders are one of the most significant challenges to global public health that many countries are facing in the adolescent population. Alcohol is by far the most often abused substance, and alcohol dependence is the primary reason patients seek therapy ^[2].

Substance use disorders often manifest themselves throughout the adolescent years, and they frequently (though not always) become more severe and complex as the individual continues to engage in substance abuse ^[3].

Young adults are more likely than other age groups to try smoking for the first time. It is now a well-established fact that the majority of adult smokers started using tobacco when they were either children or adolescents. After people in developed countries became aware of the negative effects of smoking, there was a discernible decrease in the number of people who smoked cigarettes ^[4]. In the past few decades, the rates of teen drinking have increased, and research technology has improved, both of which have contributed to a greater awareness of the issues that are produced by the use of alcohol during the fast transitions and growth that occur during adolescence. When young individuals are under the influence of alcohol, there are a number of bad effects that manifest themselves in an acute manner. Other negative impacts, on the other hand, may not manifest themselves until after a period of months or years of excessive use ^[5]. Cigarette smoking, which is the most common form of tobacco use around the globe, is a behaviour that is acquired and proceeds through numerous phases, including preparation, initiation, experimentation, regular smoking, and addiction ^[6]. As a result of the westernization process that is taking place in our society, smoking is becoming increasingly common among adolescents. It is much more challenging to kick the habit when you begin smoking at a younger age, which is why a significant number of adolescents will start smoking at a younger age out of curiosity and a spirit of adventure. The habitual

smoking of adolescents not only opens the door to multiple types of substance abuse but also causes a variety of health issues, such as upper respiratory infections, immature lung development, reduced maximum vital capacity and lung cancer. For this reason, it is extremely important to discourage adolescents from smoking ^[7]. Reducing the number of adolescents who smoke cannot be accomplished just through the implementation of social constraints, such as the dissemination of misinformation regarding the dangers of smoking and the inspection of drivers' licences. In order to lower the percentage of adolescents who smoke, every sector of society should collaborate on the creation of standardised programmes and undertake associated efforts. It is necessary to make efforts in effective education and social reinforcement in school, to establish related norms, and to carry out preventive education using peer groups in order to curb the prevalence of teen smoking, which is primarily influenced by either the home environment or the life of the student at school. To be of assistance in preserving the wellbeing of teenagers and enhancing the quality of life they lead, society and communities as a whole need to forge cooperative relationships in order to reduce the risks to their health ^[8]. Teenage smoking is one of the leading preventable causes of mortality in the United States, and the rate of teen smoking among young women and adolescents is rising. This is a concerning trend. One out of every five people will pass away due to lung cancer, chronic obstructive pulmonary disease (COPD), or cardiovascular disease. Every person who works in the health care industry should make it their mission to persuade smokers to kick the habit and so contribute to a reduction in the incidence of diseases and deaths caused by cigarette smoking ^[9].

Problem statement

The impact of school-based programme on teenagers' understanding of the adverse health repercussions of alcohol and smoking.

Objectives

1. To assess the knowledge of adolescents regarding ill effects of alcoholism and smoking on health at selected school.
2. To assess the effectiveness of school based health education on ill effects of alcoholism and smoking on health.

Materials and Methods

An evaluative research approach was contemplated after taking into account the characteristics of the problem that was chosen for the study as well as the goal that was intended to be achieved. The one-group pre-test and post-test research design was chosen to be used for the study's investigation. The knowledge level was determined by the structured questionnaires and served as the dependent variable in this study. The independent variable of the study was school-based health education on the negative effects of drunkenness and smoking on the health of teenagers.

The participants in the study were all high school students from a single high school located in Nerle, Walawa, Sangali, in the state of Maharashtra, India. The method of non-probabilistic purposive sampling was utilised in the selection process for the study's sample. Following an exhaustive assessment of the relevant literature and with the assistance of industry professionals, a systematic questionnaire was developed in order to determine the extent to which adolescents are aware of the negative impact that drunkenness and smoking

have on one's health.

The instruments are divided into two parts

Section A: Demographic Variables, Including Age, Religion, Educational Level, Number of Children in the Family, and Whether or Not the Head of the Household Earns Their Living. The family's monthly income, the family's type, the family's occupation, the number of alcoholics and smokers in the family, the length of time each family member has been an alcoholic or smoker, the family's dietary pattern and the source of the health information were all taken into consideration.

In Section B, a structured questionnaire was used to evaluate the level of knowledge that the adolescents had on the negative impact that smoking and drunkenness have on one's health.

Method for the collection of data

The appropriate authorization to carry out the research study was acquired from the relevant authority, as well as from the Nerle high school that was chosen. On the day of the pre-test, right at the beginning, the goal of the study was described to the adolescents and informed consent was obtained from each of the adolescents who were boys. A preliminary test was carried out on November 15th, 2021, with the purpose of determining the level of information already had by teens regarding the negative consequences that smoking and alcoholism have on one's health. After that, a health education campaign that focused on the dangers of smoking and alcoholism to one's body was carried out with the use of a lesson plan and audio-visual aids (Power Point presentation & poster). Post-testing took place on November 22nd, 2021 and consisted of the identical knowledge questionnaire as the initial test. During the process of data collecting, the teenagers participated actively and cooperated with researchers.

The information that was gathered was subjected to statistical analysis, both descriptive and inferential, in order to determine whether or not the study achieved its goals. The strategy for the analysis of the data was devised under the able direction of professionals in the field of nursing as well as statistics.

The following is how the plan for the data analysis looked:

1. The arrangement of information within a master sheet.
2. A tabulation of the data that describes the data using terminology such as frequency, percentage, mean and standard deviation.
3. Using the scoring scale to categories the level of knowledge possessed by the adolescent boys.

The following is a scoring scale that will be used to evaluate the level of knowledge:

Poor: A score between 0 and 8, representing less than half of the possible points.

Average -9 to 16-Between 50-75%.

Excellent -17 to 25 years old and greater than 75% of the time.

In the structured questionnaire that the teenage boys were asked to complete, each correct answer was given a score of 1, while each erroneous answer was given a value of 0.

The following inferences were reached through the use of inferential statistics

The effectiveness of health education taught in schools was evaluated with a paired "T" test, and a relationship between the variables was determined with a Chi-square test.

Results

Section A: Distribution of adolescent boys according to their socio-demographic variables.

Table 1: Distribution of adolescent boys according to their socio-demographic variables

Sr. No.	Characteristics	Frequency	Percentage
1.	Age in years-		
	a) 14years	18	36
	b) 15Years	18	36
2.	c) 16years	14	28
	Religion-		
	a) Hindu	45	90
	b) Muslims	5	10
3.	Standard of studying		
	a) 8 th	2	4
	b) 9 th	27	54
	c) 10 th	21	42
4.	No. of children in family-		
	a) One children	10	20
	b) Two children	33	66
	c) More than two children	21	14
5.	Bread winner of the family-		
	a) Mother	2	4
	b) Father	35	70
	c) Both	13	26
6.	Family monthly income-		
	a) Rs. <5000	19	38
	b) Rs. 5000-15000	24	48
	c) Rs. 15000-25000	5	10
	d) Rs. >25000	2	4
7.	Type of family-		
	a) Nuclear family	33	66
	b) Joint family	16	32
	c) Extended family	1	2
8.	Occupation of the Family-		
	a) Unemployed	0	0
	b) Self employed	28	56

	c) Daily wages	12	24
	d) Private employee	7	14
	e) Government	3	6
9.	No. of alcoholics in the family-		
	a) None	41	82
	b) One	9	18
	c) Two	0	0
	d) More than two	0	0
10.	Duration of alcoholism of family member-		
	None	41	82
	a) <2 yeras	6	12
	b) 2-5 years	2	4
	c) 5-10 years	1	2
	d) >10 years	0	0
11.	No. of smokers in the family-		
	a)None	41	82
	b)One	8	16
	c)Two	1	2
	d)More than two	0	0
12.	Duration of smoking of the family member-		
	None	41	82
	a) <2yeras	2	4
	b) 2-5years	4	8
	c) 5-10years	3	6
	d) >10years	0	0
13.	No. of friends with alcoholism-		
	a) None	46	92
	b) One	4	8
	c) Two	0	0
	d) More than two	0	0
14.	No. of friends with smoking-		
	a) None	44	88
	b) One	5	10
	c) two	1	2
	d) More than two	0	0
15.	Dietary pattern-		
	a) Vegetarian	4	8
	b) Non-vegetarian	1	2
	c) Mixed diet	45	90
16.	Source of health information-		
	a) Primary Health Centre	10	20
	b) Health care worker	17	34
	c) Parents/Friends/Relatives	20	40
	d) Mass media	1	2

e) No information	2	4
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The data that is presented in Table No. 1 shows that the majority of adolescents, 36%, were between the ages of 14 and 15, that 90% of them belonged to the Hindu religion, that 54% of boys were studying in the ninth standard, that the father was the primary breadwinner in 70% of families, that 48% of boys had a family monthly income of between 5000 and 15000 rupees, that 66% of families were nuclear, that 56% of families were self-employed, that 82% of samples did not have.

Section B: Distribution of the samples according to their pre-test and post-test level of knowledge.

Table 2: Distribution of the samples according to their pre-test and post-test level of knowledge

N=50

Sr. No.	Level of knowledge of Adolescents.	Pre-test		Post-test	
		F	%	F	%
1.	Poor (0-8)	9	18	0	0
2.	Average (9-16)	41	82	8	16
3.	Good (17-25)	0	0	42	84

The results of the pre-test are presented in table 2, which demonstrates that the majority of teenagers (82%) had average knowledge, while just 18% had inadequate knowledge. On the pre-test, nobody got a good score (anything above 16). And when it came to the post-test, the majority of adolescents (84%) had strong knowledge, while the average level of knowledge was scored by 16% of them. According to the findings shown above, the school-based health education programme had a considerable good influence on the level of awareness among the adolescent boys regarding the harmful consequences of smoking and drunkenness on health.

Section C: Effectiveness of school based health education on ill effects of alcoholism and smoking on health.

Table 3: Effectiveness of school based health education on ill effects of alcoholism and smoking on health

Sr. No.	Test	Mean	Standard Deviation	Paired t statistic	P value
1.	Pre-test	10.5	2.06	21.809	0.2902
2.	Post-test	19.62	3.22		

According to Table No. 3, the comparison of the mean post-test score (19.6) to the mean pre-test score reveals that the post-test score was significantly higher (10.5). The fact that the

obtained t value (21.8) was greater than the table value at the 0.05 level of significance demonstrates that there was a significant difference between the pre-test and post-test levels of knowledge regarding the detrimental effects that alcoholism and smoking have on the health of adolescent boys. As a result, the hypothesis for the investigation that was formulated, H1, can be accepted.

Section D: Association of pre-test level of knowledge of adolescent boys with their selected demographic variables.

Table 4: Association of pre-test level of knowledge of adolescent boys with their selected demographic variables

Sr. No.	Demographic Variable	Level of knowledge		Chi-sq.	P value
		Poor	Average		
1.	Age of student			2.99	0.22
	a) 14 years	5	13		
	b) 15 years	2	16		
	c) 16 years	1	13		
	Religion-			1.98	0.30
	a) Hindu	8	37		
b) Muslim	0	5			
3.	Standard of studying			2.50	0.29
	a) 8 th	1	1		
	b) 9 th	5	22		
	c) 10 th	2	19		
	No. of children in the family-			4.39	0.11
	a) One	1	9		
b) Two	4	29			
	c) Three	3	4		
	Bread winner of the family-			1.46	0.48
	a) Mother	0	2		
b) Father	7	28			
c) Brother	1	12			
	d) Other	0	0		
	Family's monthly income-			1.02	0.80
	a)Rs<5000	4	15		
	b)Rs5000-15000	3	21		
c)Rs15000-25000	1	4			
	d)Rs>25000	0	2		
	Type of family			5.41	0.67
a) Nuclear	5	28			
b) Joint	2	14			
	c) Extended	1	0		
	Occupation of the family-			1.99	0.57
a) Unemployed	0	0			

	b) Self-employed	3	25		
	c) Daily wages	3	9		
	d) Private employee	1	6		
	e) Government	1	2		
9.	No. of alcoholics in the family-				
	a) None	8	34	1.81	0.18
	b) One	0	8		
	c) Two	0	0		
	d) More than two	0	0		

10.	Duration of alcoholism of family member-				
	None	7	34		
	a) <2 yeras	1	5	0.61	0.89
	b) 2-5 years	0	2		
	c) 5-10 years	0	1		
	d) >10 years	0	0		
11.	No. of smoker family-				
	a) None	5	36	6.17	0.05
	b) One	2	6		
	c) Two	1	0		
	d) More than two	0	0		
12.	Duration of smoking of family member-				
	None	5	36		
	a) <2 Years	0	2	4.93	0.18
	b) 2-5 Years	2	2		
	c) 5-10 Years	1	2		
	d) >10 Years	0	0		
13.	No. of friholism-				
	a) None	8	38	0.82	0.36
	b) One	0	4		
	c) Two	0	0		
	d) More than two	0	0		
14.	No. of friends with smoking-				
	a) None	7	38	6.01	0.05
	b) One	0	4		
	c) Two	1	0		
	d) More than two	0	0		
15.	Dietary Pattern-				
	a) Vegetarian	0	3	0.82	0.66
	b) Non-vegetarian	0	1		
	c) Mixed diet	8	38		
16.	Source of health information-				
	a) Primary Health Centre	0	10	12.64	0.05

b) Health care worker	3	14		
c) Parents/Friends/Relatives	3	17		
d) Mass media	0	1		
e) No information	2	0		

Table No. 4 demonstrates that there was a significant association between the pre-test level of knowledge of adolescents regarding the negative effects of alcoholism and smoking on health, as well as demographic variables such as the number of smokers in the family ($2=6.17$, $P0.05$), the number of friends who smoke ($2=6.01$, $P0.05$) and the source of health information ($2=12.64$, $P0.05$). There was not found to be any significant association with any of the other demographic variables.

Discussion

The purpose of this study was to evaluate the efficacy of a school-based health education programme on the negative impact that smoking and drunkenness have on the health of teenage boys attending a particular school in the Nerle area. The fact that the mean score on the post-test was 19.62 (with a standard deviation of 3.25) and the mean score on the pre-test was 10.56 (with a standard deviation of 2.06) demonstrates that the health education programme was successful. The results of a paired "t" test, in which the level of significance was set at the computed "t" value ($p0.05$), indicated that there was a significant difference in the knowledge of adolescents regarding the harmful effects of alcoholism and smoking on health. The test compared the scores on a pre-test and a post-test, and the level of significance was set at the difference between the two.

Maheswari K. (2015) conducted a study quite similar to this one in Tirupur, Chennai, Tamilnadu, in order to evaluate the efficacy of a structured training programme on the degree of knowledge of alcohol dependence among adolescents in a chosen hamlet. The "t" value was 14.49, and the mean score for the post-test was 29.61, which was lower than the score for the pre-test, which was 19.01 and the standard deviation was 2.59. The findings of this study demonstrate different results to the present study in that it was determined that adolescents had appropriate information about the harmful consequences of drinking on health and that the organised education programme was shown to be beneficial in the experimental group ^[10]. The results of the present study are supported by the findings of a study that was carried out in Madurai, Tamil Nadu, in 2014 by Thomas R. to evaluate the efficacy of a planned teaching programme on knowledge regarding the harmful effects of cigarette smoking and its prevention among the adolescent's boys who attended a selected college. The participants in this study were all male teenagers and ranged in age from 13 to 18. The "t" value was 58.34, and the mean score for the post-test was 26.73, which was higher than the score for the pre-test, which was 13.31 (SD-1.89). The findings indicate that there was a substantial improvement in the post-test level of knowledge of adolescents who received teaching programme and that the teaching programme had a significant effect on the level of knowledge in adolescent's boys ^[11]. The results of the study conducted by Debajani Nayak (2016) were comparable to the findings of the present investigation. A descriptive study that did not include any experiments was carried out with the purpose of determining the levels of knowledge and actual substance abuse among adolescents. The results of a survey that asked people about their understanding about the prevention and treatment of substance misuse

showed that 5.39 percent of respondents agreed with the statements. In terms of the physiological and psychological effects of substance misuse, studies have shown that after drinking alcohol, 7% of people report feeling joyful, 9% report feeling physically comfortable, 9% report having good sleep and being able to relax well, and 10% report avoiding bad motions. The prevalence of substance addiction among students is indicated by the fact that 56% of students report having tried alcohol or other drugs. Around five percent of the student body got their start in alcohol and drugs by observing their parents' behaviour. In the final statistical analysis, it was determined that the correlation of knowledge score with sociodemographic characteristics such as age, stream of adolescence, and occupation of their parents were substantially associated at a level p value 0.001, with scores of 13.1, 4.03, and 6.35 correspondingly. (12) Nowak M., Papiernik M., Mikulska A., and Czarkowska-Paczek B. (2018) in their study with Smoking, alcohol consumption, and illicit substance use among adolescents, the results shows that, among the 541 participants aged 13-17 years old, the use of alcohol, cigarette, and illicit substance among the investigated group was 36.1, 37.6 and 10.8% respectively. The study was conducted with adolescents who smoked cigarettes, consumed alcohol, and used illicit substances. The typical age range for first involvement was between 13 and 14 years old. The percentage of times that parents were aware of their child's intake of alcohol, cigarettes, and illegal substances was 49.5%, 35.8%, and 22.4% respectively. And the acceptability rate for alcoholic beverages and smokes was 5.7% and 6.7% respectively. More than 28% of the participants smoked while they were at school, and 32.7% obtained illegal substances in the surrounding area of the school. According to the findings of the survey, the prevalence of the use of alcohol, cigarettes, and illegal substances in Poland is high and on the rise. There is a low level of awareness among parents regarding their children's use of alcohol, cigarettes, or illicit substances, and schools hardly ever perform the teaching and protective roles that are expected of them. Taking preventative measures is essential, and it is important to take into account any regional obstacles 13.

Conclusion

The current study came to the conclusion that the level of knowledge held by adolescent boys regarding the negative effects of alcoholism and smoking on health was inadequate in the pre-test; however, after participating in a school-based health education programme, there was a significant gain in the level of knowledge held by adolescent's boys. As a result, it can be concluded that the school-based health education programme was successful in enhancing the knowledge of teenage boys attending the chosen school.

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