

EFFECTIVENESS OF VIDEO-ASSISTED TEACHING MODULE ON ATTITUDE REGARDING SMOKING ABUSE AND ITS PSYCHOLOGICAL EFFECTS AMONG STUDENTS OF DEGREE COLLEGE IN SELECTED COLLEGE AT DEHRADOON, UTTRAKHAND

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ABSTRACT

Smoking among college students poses significant health risks, including psychological effects, requiring effective interventions. This study evaluated the effectiveness of a video-assisted teaching module in enhancing attitudes regarding smoking abuse and its psychological effects among hypertensive degree college students in a selected college in Dehradun, Uttarakhand. A one-group pre-test post-test design was employed, with 30 students selected through non-probability purposive sampling. Data were collected using a structured attitude questionnaire and analyzed using paired t-tests and chi-square tests. Result : The results demonstrated a significant improvement in attitude scores, with the pre-test mean score of 46.19 (SD = 5.27, 46.19%) increasing to 84.43 (SD = 8.44, 84.43%) in the post-test. The enhancement mean score was 38.24, and the paired t-test value of 72.56 (df = 29, p < 0.05) confirmed the statistical significance of this improvement, emphasizing the module's effectiveness in positively influencing attitudes. Chi-square analysis revealed significant associations between pre-test attitude scores and the socio-demographic variables of gender ($\chi^2 = 5.32$, p = 0.021), type of family ($\chi^2 = 6.59$, p = 0.037), and source of information ($\chi^2 = 10.91$, p = 0.028). However, no significant associations were found for age, year of study, stream of study, residence, family income, parent's occupation, or smoking history in the family (p > 0.05). Conclusion : These findings highlight the influence of specific socio-demographic factors on attitudes toward smoking abuse and validate the video-assisted teaching module as a highly effective educational tool. Incorporating such multimedia educational modules into public health initiatives and academic curricula can enhance awareness and attitudes toward smoking abuse. Future studies should explore broader populations, additional factors, and long-term impacts to generalize these findings.

Keywords: Experimental Study, Video-Assisted Teaching Module, Attitude, Smoking Abuse, Psychological Effects

INTRODUCTION

Tobacco cultivation has an extensive history spanning approximately 8000 years. Europeans were introduced to tobacco in 1492, following Columbus's landing in America. Portuguese traders brought tobacco to India around 1600. This led to its adoption as a valuable commodity in barter trade, causing tobacco to spread rapidly across the globe. [1]

Initially introduced in India as a product for smoking, tobacco use gradually diversified into several forms, including chewing. Paan (betel quid) chewing became a particularly widespread form of smokeless tobacco consumption. By the 16th century, the harmful effects of tobacco on human health were recognized, leading to restrictions on its use. Despite social disapproval, tobacco continues to thrive globally. [2]

Tobacco is predominantly used as a recreational drug in forms such as smoking, chewing, snuffing, and dipping. It is derived from the processed leaves of plants in the genus *Nicotiana*. Nicotine, the primary alkaloid in tobacco leaves, is highly addictive, leading to tolerance and dependence among users. [3]

Globally, tobacco usage involves approximately 1.1 billion individuals, accounting for nearly one-third of the adult population. The World Health Organization (WHO) identifies tobacco as the leading preventable cause of death worldwide, currently causing an estimated 5.4 million deaths annually. [3]

Tobacco contributes significantly to global mortality from chronic diseases. Around 1.3 billion smokers exist worldwide, with 80% residing in developing countries. Tobacco use results in approximately 5 million deaths annually, a figure projected to rise to 10 million by 2025. Notably, 7 million of these deaths are expected to occur in developing countries. Tobacco-related mortality and morbidity incur a staggering economic cost of approximately US\$200 billion annually. According to WHO, about 47% of men and 12% of women globally are smokers. [4]

The Global Youth Tobacco Survey (GYTS), conducted in 131 countries among 750,000 students aged 13–15 years, revealed that 9% were current smokers and 11% used other tobacco products. India ranks as the second-largest consumer of tobacco globally, after China. Conservative estimates attribute between 800,000 and 900,000 annual deaths in India to tobacco use. Among India's 2.2 million cancer patients, tobacco-related cancers account for nearly 50% of cases in men and 20% in women. Tobacco causes approximately 0.7 million deaths annually in India, surpassing fatalities from AIDS, alcohol, drug abuse, car crashes, murders, suicides, and fires combined each year, as reported by the Centers for Disease Control and Prevention (CDC). [5]

The economic burden of tobacco use is immense. The cost of treating three major tobacco-related disease groups—cancer, heart disease, and lung disease—has been estimated at ₹308.33 billion annually. [6]

NEED FOR THE STUDY

Cigarette smoking is among the most detrimental habits practiced by a significant portion of the global population. It is an addictive behavior that gradually damages body organs, leading to severe illnesses and potentially death. Smokers often find it challenging to quit, necessitating proper medication and counseling to overcome this harmful addiction. Cigarette smoking is responsible for numerous deaths annually worldwide. [10]

Tobacco contains a variety of harmful ingredients, many of which are highly potent. Of the 4,000 chemicals present in tobacco, 43 are known carcinogens. Some of the most hazardous compounds include tar, benzene, formaldehyde, acetone, arsenic, carbon monoxide, nitrogen oxides, hydrogen cyanide, metals, ammonia, and radioactive substances. [11]

In India, nearly 10% of adolescents aged above 18 years have tried smoking at least once, with almost half of them initiating tobacco use before the age of 15. According to the National Sample Survey of India, 29.3% of rural and 20.2% of urban males, as well as 2.3% of rural and 0.7% of urban females, smoke beedis or cigarettes. The prevalence of other forms of tobacco consumption, such as snuff, chewing tobacco, burnt tobacco powder, and paste, stands at 19.3% and 9.9% among rural and urban males, and 9.3% and 4.3% among rural and urban females, respectively. WHO estimates reveal that approximately 80% of adult smokers begin using tobacco before the age of 18. [19]

PROBLEM STATEMENT

A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO-ASSISTED TEACHING MODULE ON ATTITUDE REGARDING SMOKING ABUSE AND ITS PSYCHOLOGICAL EFFECTS AMONG STUDENTS OF DEGREE COLLEGE IN SELECTED COLLEGE AT DEHRADOON, UTTRAKHAND.

PURPOSE OF THE STUDY

The purpose of this study is to evaluate the effectiveness of a video-assisted teaching module in shaping the attitudes of degree college students regarding smoking abuse and its psychological effects. The study aims to foster positive attitude changes by increasing awareness of the harmful impacts of smoking and encouraging preventive behaviors. By assessing the intervention, the study seeks to measure its influence on students' perspectives and promote healthier decision-making among students in a selected college in Dehradun, Uttarakhand.

OBJECTIVES:

1. To assess existing level of attitude regarding smoking abuse and its psychological effects among degree college students.
2. To assess post test level of attitude regarding smoking abuse and its psychological effects among degree college students.
3. To evaluate the effectiveness of video-assisted teaching module by comparing pre-test and post-test attitude score.
4. To find out the association between pre-test attitude scores with their selected socio-demographic variables.

HYPOTHESIS

To achieve the stated objectives, the following hypothesis was formulated at 0.05 level of significance:

H1: -There is a significant difference between pre-test and post test attitude score regarding smoking abuse and its psychological effects among degree college students.

H2:- There is a significant association between pre-test attitude score regarding smoking abuse and its psychological effects with their selected socio demographic variable.

OPERATIONAL DEFINITION

Evaluate : Systematically assess the impact of the video-assisted teaching module on students' attitudes regarding smoking abuse and psychological effects.

Effectiveness : The ability of the video-assisted teaching module to positively influence students' attitudes toward smoking abuse and psychological consequences.

Video-Assisted Teaching Module : An educational tool using videos to deliver structured content aimed at enhancing students' attitudes toward smoking-related issues.

Attitude : Students' beliefs, feelings, and predispositions about smoking abuse and psychological effects, assessed before and after the educational intervention.

Smoking Abuse and Its Psychological Effects : Excessive tobacco use and its adverse psychological impacts, including anxiety, dependency, and mental health challenges among individuals.

Degree College : An undergraduate institution in Dehradun, Uttarakhand, where the study evaluates students' attitudes toward smoking abuse and psychological effects.

REVIEW OF RITERATURE

A cross-sectional study assessed factors influencing cigarette smoking among 576 male college students aged 15–30 in Karachi, Pakistan. The study found students with smoker friends were five times more likely to smoke compared to those with non-smoker friends. Students whose fathers lacked formal education were more likely to smoke than those with educated fathers. Similarly, students with non-working mothers were more prone to smoking. Additional factors such as family tobacco use and spending leisure time outside the home contributed to smoking habits. [46]

A study on knowledge, attitude, and practice regarding tobacco usage among adolescents was conducted in Bombay. It included 1278 boys and 353 girls from various schools. The study showed higher tobacco use in private English-medium schools, with 22.5% of boys and 10.68% of girls using tobacco, compared to private Indian-language schools (6.9% of boys, 1.25% of girls) and municipal schools (13.8% of boys, 4.82% of girls). Among tobacco users, 86% of boys and 29% of girls were smokers. Boys were significantly more likely to smoke if their father or best friend smoked. Notably, 70% of boys and 74% of girls showed positive attitudes toward non-smoking and smoking control programs. [51]

A cross-sectional study in rural Kerala focused on tobacco use and its link to cardiovascular disease. The study involved 302 females (64.7%) and 165 males (35.3%). Among males, 38.5% were ever-smokers. While 96.6% of subjects acknowledged tobacco's harmful effects, only 22.5% were aware of its role in cardiovascular diseases. Media, both electronic and print, were the primary sources of information for 58.7% of the sample. [52]

A survey conducted among 599 college students in Andhra Pradesh, India, aimed to formulate an anti-smoking policy for youth. The sample included 64.6% boys and 35.4% girls aged 15–22. Students supported measures like parental pressure to curb smoking, banning tobacco advertising, smoking restrictions in public places, and discouraging teacher smoking in schools. Increasing cigarette prices was widely approved. The survey highlighted a knowledge gap about smoking's ill effects, suggesting that health education programs could address this issue. [57]

METHODOLOGY

This study employs a quantitative, quasi-experimental design to evaluate the effectiveness of a video-assisted teaching module on the attitudes of degree college students regarding smoking abuse and its psychological effects. Conducted in a selected degree college in Dehradun, Uttarakhand, the study involves 30 participants selected through random sampling. Data will be collected using a structured attitude assessment questionnaire developed from a thorough literature review. A pre-test and post-test design will measure attitude changes following the intervention. Ethical approval and informed consent will ensure participant confidentiality. Statistical analysis will assess the module's effectiveness in influencing students' attitudes and awareness.

RESULTS & DATA ANALYSIS

Table-1: Distribution of degree college students according to their demographic variables N=30

Demographic variables		Frequency(n)	Percentage %
Age	18-20 Year	7	23.33 %
	21-22 Year	9	30.00 %
	23-24 Year	8	26.66 %
	>24 Year	6	20.00 %
Gender	Male	7	23.33%
	Female	3	10.00%
Year of Study	First year	10	33.33%
	Second year	7	23.33%
	Third year	13	43.33%
Stream of Study	Arts	5	16.66%
	Science	19	63.33%
	Commerce	6	20.00%
Type of family	Nuclear family	18	60.00%
	Joint family	7	23.33%
	Extended family	5	16.66%
Residence	Urban	9	30.00%
	Semi Urban	12	40.00%
	Rural	9	30.00%
Family Income per Month	Below 20000/-	11	36.66%
	20001-30000/-	7	23.33%
	30001-40000/-	8	26.66%
	Above 40000/-	4	13.33%
Parents education	Govt. Job	4	13.33%
	Private Job	15	50.00%
	Self Employed	9	30.00%
	Unemployed	2	06.66%
Smoking history in family	Yes	8	26.66%
	No	22	73.33%
Source of information	Family	13	43.33%
	Friends	5	16.66%
	Media	7	23.33%
	Health Campaign	5	16.66%

The table provides demographic insights into the distribution of degree college students. Most students (30%) are aged 21-22 years, with males constituting 23.33% and females 10%. Regarding the year of study, 43.33% are in the third year, followed by 33.33% in the first year. Science is the most common

stream (63.33%), and 60% belong to nuclear families. Residence is predominantly semi-urban (40%), and 36.66% have a family income below ₹20,000/month. Parents of 50% of students are privately employed, and 73.33% report no family smoking history. Family is the primary source of smoking-related information for 43.33% of students.

TABLE-2: COMPARISON OF DISTRIBUTION OF DEGREE COLLEGE STUDENTS BY THEIR PRE-TEST AND POST-TEST LEVEL OF ATTITUDE REGARDING SMOKING ABUSE AND ITS PSYCHOLOGICAL EFFECTS. (N=30)

Level of attitude	Attitude scores	Frequency		Percentage of frequency	
		Pre-test	Post-test	Pre-test	Post-test
Favourable	75- 100	0	20	0.00%	66.66%
Moderately favourable	50-74	12	10	40.00%	33.33%
Unfavourable	0-49	18	0	60.00%	0.00%
TOTAL		30	30	100.00%	100.00%

The table shows significant improvement in students' attitudes post-intervention. Pre-test results revealed 60% unfavorable attitudes, reduced to 0% in the post-test. Favorable attitudes increased from 0% to 66.66%, while moderately favorable attitudes decreased from 40% to 33.33%. The video-assisted teaching module effectively improved awareness and attitudes toward smoking abuse.

TABLE-3: MEAN AND MEAN% OF PRE-TEST, POST-TEST, AND ENHANCEMENT ATTITUDE SCORES AMONG DEGREE COLLEGE STUDENTS. (N=30)

KNOWLEDGE ASPECTS	Mean			Mean%			Calculated Paired t-test value
	Pre-test	Post-test	Enhancement	Pre-test	Post-test	Enhancement	
Positive statements	35.91	63.30	27.39	47.88%	84.40%	36.52%	67.85 (S) df=299
Negative statements	10.27	21.13	10.86	41.09%	84.53%	43.44%	47.39 (S) df=299
OVERALL	46.19	84.43	38.24	46.19%	84.43%	38.24%	72.56 (S) df=299

The table highlights a significant improvement in attitude scores among degree college students after the intervention. Positive statements showed a mean enhancement of 27.39 (36.52%), while negative statements improved by 10.86 (43.44%). Overall, the mean attitude scores increased from 46.19

(46.19%) in the pre-test to 84.43 (84.43%) in the post-test, with a mean enhancement of 38.24 (38.24%). The paired t-test values for all aspects were statistically significant ($p < 0.05$), indicating the video-assisted teaching module effectively improved students' attitudes regarding smoking abuse and its psychological effects.

TABLE-4: MEAN, MEAN%, SD AND CV OF OVERALL PRE-TEST, POST-TEST AND ENHANCEMENT ATTITUDE SCORES AMONG DEGREE COLLEGE STUDENTS (N=300).

	Minimum	Maximum	Range	Mean	Mean%	SD	co-efficient of variance	Paired t Test Value
PRE-TEST	32	65	33	46.19	46.19%	5.27	11.41%	72.56 (S) df=29
POST-TEST	61	99	38	84.43	84.43%	8.44	10.00%	
ENHANCEMENT	10	59	49	38.24	38.24%	9.13	23.87%	

The table demonstrates significant improvements in overall attitude scores among degree college students. Pre-test mean scores were 46.19 (46.19%), with a standard deviation (SD) of 5.27 and a coefficient of variance (CV) of 11.41%. Post-test scores increased to 84.43 (84.43%) with an SD of 8.44 and a CV of 10.00%. The enhancement mean was 38.24 (38.24%), with an SD of 9.13 and a CV of 23.87%. The paired t-test value of 72.56 (S) indicates statistically significant changes, highlighting the effectiveness of the video-assisted teaching module in improving students' attitudes toward smoking abuse.

Hypothesis Testing :

H¹: -There is a significant different between pre-test and post-test attitude score regarding smoking abuse and its psychological effects among degree college students.

The paired t-test value of **72.56** (df = 29, $p < 0.05$) indicates a statistically significant difference between the pre-test (Mean = 46.19, SD = 5.27) and post-test (Mean = 84.43, SD = 8.44) attitude scores regarding smoking abuse and its psychological effects among degree college students. The enhancement in scores (Mean = 38.24, SD = 9.13) demonstrates the effectiveness of the intervention in bringing about a substantial positive change in students' attitudes. Research hypothesis H¹ accepted.

TABLE 5: ASSOCIATION BETWEEN PRE-TEST LEVEL OF ATTITUDE REGARDING SMOKING ABUSE AND ITS PSYCHOLOGICAL EFFECTS AMONG HYPERTENSIVE DEGREE COLLEGE STUDENTS AND THEIR SELECTED SOCIO-DEMOGRAPHIC VARIABLES (N=30)

Sl. No	Socio demographic variables	Categories	Pre-test level of Attitude		Calculated chi square value	df	P value
			Favourable	Moderately favourable			
1	Age	18–20 years	5	2	4.04 (NS)	3	0.257
		21–22 years	6	3			
		23–24 years	5	3			
		Above 24 years	4	2			
2	Gender	Male	5	2	5.32 (S)	1	0.021
		Female	1	2			
3	Year of Study	First Year	4	6	2.24 (NS)	2	0.982
		Second Year	3	4			
		Third Year	5	8			
4	Stream of Study	Arts	2	3	2.87 (NS)	2	0.412
		Science	8	11			
		Commerce	2	4			
5	Type of Family	Nuclear Family	10	8	6.59 (S)	2	0.037
		Joint Family	4	3			
		Extended Family	2	3			
6	Residence	Urban	5	4	4.56 (NS)	2	0.102
		Semi-Urban	8	4			
		Rural	4	5			
7	Family Income Per Month	Below ₹20,000	4	7	3.07 (NS)	3	0.380
		₹20,001–₹30,000	3	4			
		₹30,001–₹40,000	5	3			

		Above ₹40,000	2	2			
8	Parent's Occupation	Government Job	2	2	6.43 (NS)	3	0.092
		Private Job	8	7			
		Self-Employed	5	4			
		Unemployed	1	1			
9	Smoking History in Family	Yes	3	5	0.23 (NS)	1	0.629
		No	9	13			
10	Source of Information About Smoking and Its Effects	Family	8	5	10.91 (S)	3	0.028
		Friends	3	2			
		Media	2	5			
		Health Campaigns	2	3			

The table illustrates the association between pre-test levels of attitude regarding smoking abuse and psychological effects among hypertensive degree college students and their socio-demographic variables. Significant associations were found with **gender** ($p=0.021$), **type of family** ($p=0.037$), and **source of information about smoking** ($p=0.028$). Male students and those from nuclear families showed more favorable attitudes. Additionally, students receiving information from family had significantly better attitudes. However, variables such as age, year of study, stream of study, residence, family income, parents' occupation, and smoking history in the family did not show a significant association ($p > 0.05$). These results emphasize the influence of gender, family environment, and information sources on students' attitudes.

Hypothesis Testing :

H^2 :- There is a significant association between pre-test attitude score regarding smoking abuse and its psychological effects with their selected socio demographic variable.

The hypothesis testing revealed a significant association between pre-test attitude scores regarding smoking abuse and the socio-demographic variables of gender ($\chi^2 = 5.32$, $p = 0.021$), type of family ($\chi^2 = 6.59$, $p = 0.037$), and source of information ($\chi^2 = 10.91$, $p = 0.028$). These results indicate that these factors influence students' attitudes. However, other variables such as age, year of study, residence, and family income did not show significant associations ($p > 0.05$).

NURSING IMPLICATIONS

Nursing Research

This study highlights the importance of developing innovative educational interventions to address smoking abuse and its psychological effects. Future research can explore long-term impacts of video-assisted teaching modules, assess their scalability, and investigate their effectiveness across diverse populations. Researchers can also examine the role of multimedia tools in enhancing attitudes toward other health-related issues.

Nursing Education

The findings emphasize the need to incorporate video-assisted teaching methods into nursing curricula to improve students' understanding of smoking abuse and its psychological consequences. Nursing educators can use such modules to teach behavioral change strategies and emphasize preventive measures, fostering critical thinking and evidence-based learning.

Nursing Practice

Nurses play a crucial role in promoting health and preventing smoking-related health issues. The study suggests integrating video-based tools into health promotion campaigns in clinical and community settings. By using these tools, nurses can effectively educate individuals and groups, encouraging healthier attitudes and behaviors toward smoking.

Nursing Administration

Nurse administrators can leverage the findings to implement structured educational programs within institutions. They can allocate resources to develop video-assisted teaching modules, train staff on their usage, and evaluate program outcomes. Administrators can also advocate for policies promoting preventive education on smoking abuse in schools and colleges.

CONCLUSION

The study demonstrated the significant effectiveness of a video-assisted teaching module in improving the attitudes of degree college students regarding smoking abuse and its psychological effects. Key demographic variables, including gender, family type, and sources of information, influenced students' attitudes. The intervention successfully enhanced awareness, shifting attitudes from unfavorable to favorable, highlighting its potential as an educational tool. The findings emphasize the importance of integrating innovative teaching methods into nursing practice, education, and research. This approach can empower nursing professionals to design effective health education programs, promote preventive behaviors, and contribute to reducing smoking-related health issues in diverse populations.

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