

A Study To Assess The Effectiveness of Structured Teaching Programme on Knowledge Regarding dangers of Smoking Among Adolescents in Selected Schools of Jammu

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Smoking is the inhalation of the smoke of burning tobacco encased in cigarettes, pipes, and cigars. Casual smoking is the act of smoking only occasionally, usually in a social situation or to relieve stress. A smoking habit is a physical addiction to tobacco products. It is of mainly two types: active and passive smoking. Active smokers directly use cigarette, cigar or beedies for smoking. Passive smoking is the inhalation of smoke, called second hand smoke or environmental tobacco smoke, from tobacco products used by others⁵.

Adolescence is the most important and sensitive period of one's life. According to World health organization expert committee, adolescence is defined as a period between 13 to 19 years, means the second decade of life. Adolescence is an age group that usually tends to be subsumed under the categories of either youth or children. The formulation of definitions clearly reveals the age and characteristics of adolescents is only a recent phenomenon; and yet to be widely recognized all over the world. The actual interpretation of adolescence as a phase of life remains a social construct that differ between cultures.⁶

Smoking is the single most important preventable cause of death. The adolescent age is a critical period in the formation of the smoking habit. Most smokers start smoking during their adolescence or early adult years. The earlier they start to smoke, the more likely they are to become regular smokers. It has been found in developed countries that nearly one-half of school students who have reached the age of 18 have already established the habit of smoking.⁵

Dangers of smoking are well-known and can have serious detrimental effect on the quality of life besides diseases. Teenagers are attracted by the smoke and the smoking style, which tempts them to smoke. Friends and colleagues also encourage non-smokers, to smoke just once. Smoking by parents, siblings, low self efficacy & lack of conscientiousness are the reasons for adolescents to develop smoking habit. Smoking in movies is the main reason for adolescents acquiring this habit⁷. In an initial estimate of factors responsible for the global burden of disease, tobacco contributed to 6% of deaths worldwide followed by alcohol at 1.5%. Tobacco smoke contains nicotine, an addictive stimulant and euphoriant. The effect of nicotine in first time or irregular users is an increase in alertness and memory and mild euphoria. Medical research has determined that chronic tobacco smoking can lead to many health problems particularly Lung Cancer, emphysema and cardiovascular disease.⁸

Objectives of the study

1. To assess the pre-test knowledge regarding dangers of smoking among adolescents in selected schools of Jammu.
2. To assess the post-test knowledge regarding dangers of smoking among adolescents in selected schools of Jammu after Structured teaching programme.
3. To compare pre-test and post-test knowledge scores regarding dangers of smoking among adolescents in selected schools of Jammu.
4. To determine the association between pre-test knowledge scores of adolescents regarding dangers of smoking with their selected demographic variables (age of adolescents, gender, educational status of father, educational status of mother, residence, type of family, family income)

Hypothesis:

- 1) **H₁:** There is significant difference between pre-test knowledge and post-test knowledge scores regarding dangers of smoking among adolescents at ≤ 0.05 level of significance.
- 2) **H₂:** There is significant association between pre-test knowledge scores of adolescents regarding dangers of smoking with their selected demographic variables (age of adolescents, gender, educational status of father, educational status of mother, residence, type of family, family income) at ≤ 0.05 level of significance

Research Methodology: Research approach- Quantitative research approach was used. Research Design was Pre Experimental One Group Pre Test Post Test Design. Research setting was selected high schools of Jammu. Sample size & technique were 60 adolescents of selected high schools of jammu choosen by Stratified proportionate simple random sampling . Method of data collection and tool was Self structured questionnaire.

Results

The results of the study showed that the mean knowledge score in pre test was 18.16 and S.D was 2.48 and in post test mean was 24.44 and S.D 2.46 So it is evident that mean post test knowledge of adolescents regarding dangers of smoking was significantly greater than their mean pre test knowledge score at $p \leq 0.05$ level. Hence STP on dangers of smoking was effective. The association

between demographic variables and Pretest knowledge score was analyzed by using Descriptive and inferential statistics. The test revealed that there is statistically significant association with demographic variable as educational status of mother and evidenced that there was statistically association at $p \leq 0.05$ level and no association was found with demographic variables as Age, Gender Educational status of father, residence, Type of Family, Family income.

Interpretation and conclusion

The present study revealed that the structured teaching programme was significantly effective in improving the knowledge of adolescents regarding dangers of smoking. Hence the study concluded that improved knowledge regarding dangers of smoking helps the adolescents to take protective and preventive measures against tobacco smoking, which will, in turn, help the students to improve the quality of life by controlling the tobacco smoking, and thus the students can bring about the awareness among the public.

Keywords: Planned teaching programme, Effectiveness, Knowledge, adolescents, schools, dangers of smoking.

INTRODUCTION

Health is a state of complete physical, social and mental well being and not merely the absence of disease or infirmity.¹ Good health is a secret of every happy man. There is an old saying, "Health is Wealth." Health is a wonderful gift given by God. It's our duty to preserve it to lead a healthy life. Good health is a priceless asset .But some people fall into bad habits such as smoking tobacco. The personal decisions on behavior affect the prospects for good health and that ill health is not solely a consequence of ill fortune but frequently a direct consequence of behavior under individual's control.²

The history of smoking can be dated to as early as 5000 BC and has been recorded in many different cultures across the world. Early smoking evolved in association with religious ceremonies, as offering to deities, in cleansing rituals or to allow shamans and priests to alter their minds for the purpose of spiritual enlightenment.³

Tobacco smoke contains nicotine, an addictive stimulant and euphoriant. The effect of nicotine in first time or irregular users is an increase in alertness and memory and mild euphoria. Medical research has determined that chronic tobacco smoking can lead to many health problems particularly Lung Cancer, emphysema and cardiovascular disease.⁸

The adverse effects of smoking are extensive. Exposure to environmental tobacco smoke on health of adolescents are well known and include increased risk for asthma induction and exacerbation, acute lower respiratory tract infections, and effusions of the middle-ear. Exposure to environmental tobacco smoke is associated with abnormal levels of lung function, and increased bronchial responsiveness in both adults, and adolescents. The smokers are also at great risk of many other non fatal diseases including osteoporosis, periodontal disease, Impotence, male infertility and cataract. Smoking in pregnancy is associated with spontaneous abortions, still births, low birth weight babies.

Besides the effects of environmental tobacco smoke on health, exposure to environmental tobacco smoke could be associated with significant economic costs due to increased health care services utilization⁹.

Tobacco is not just a simple health issue, but involves economics, environment, big business, politics, family relations, trade and crimes such as smuggling, litigation and deceit.²

There are many cost-effective tobacco control measures that can be used in different settings and have a significant impact on tobacco consumption. The most cost-effective strategies are population-wide public policies, like bans on advertising, promotion and sponsorship of tobacco products.

NEED FOR THE STUDY

Globally, approximately 47% of males and 12% of females are smokers. In developing countries, 48% of males and 7% of females smoke. Whereas in developed countries, 42% of males and 24% of females have smoking related diseases.

Globally, nearly 50,000,00,0 persons die annually from tobacco-related illnesses, and many more suffer from smoking-related morbidity. There is therefore, need to identify relevant factors associated with smoking among adolescents in order to better tailor public health interventions aimed at preventing smoking .The WHO, provide certain estimates that India will have the fastest rate of rise in death attributable tobacco in the first two decades of twenty first century

The global youth tobacco survey (GYTS), in 2009 indicated that the national prevalence of current tobacco use among school-going adolescents (between 13 to 15 years of age) was 14.1% and had not changed significantly from the global youth tobacco survey 2006 (16.9%)¹⁰.

South-East Asia Regional Office (WHO-SEARO) and Indian Council of Medical Research provided detailed population-based tobacco use prevalence data for youth in the age group of 10–14 years in two states—Uttar Pradesh (boys 3%; girls 0.6%) and Karnataka (boys 1.3%; girls 0.1%)¹¹.

A cross-sectional study was conducted on adolescent's perceptions about smokers in Karnataka, India in 2011. By using a stratified random sampling with probability proportional to school-type (government or private owned) 1087 students were selected. Data was collected using a pretested, self-administered, anonymous questionnaire with a mix of close and open ended questions from a sample. Chi-square test was used to measure associations. Results shows that the response rate for the study was 82.5% and the sample population had a mean age of 16.9 years. Majority of respondents (84.6%) reported negative perceptions about smokers while 20.4% of respondents reported positive perceptions. Female students reported significantly higher disapproval rate (negative perceptions) for smoking compared to male students (89.7% Vs 71.6% in case of male smoker; 81.2% Vs 67.3% in case of female smoker).⁹

Objectives of the study

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7. To compare pre-test and post-test knowledge scores regarding dangers of smoking among adolescents in selected schools of Jammu.
8. To determine the association between pre-test knowledge scores of adolescents regarding dangers of smoking with their selected demographic variables (age of adolescents, gender, educational status of father, educational status of mother, residence, type of family, family income)

Hypothesis:

- 3) **H₁:** There is significant difference between pre-test knowledge and post-test knowledge scores regarding dangers of smoking among adolescents at ≤ 0.05 level of significance.
- 4) **H₂:** There is significant association between pre-test knowledge scores of adolescents regarding dangers of smoking with their selected demographic variables (age of adolescents, gender, educational status of father, educational status of mother, residence, type of family, family income) at ≤ 0.05 level of significance

Operational definitions:

- 1) **Structured Teaching Programme:** refers to a systematically developed programme with teaching aids prepared by the investigator to impart knowledge regarding hazards of smoking among adolescents.
- 2) **Knowledge:** refers to the correct responses of students to the items on the knowledge questionnaire regarding hazards of smoking.
- 3) **Hazards:** refers to the problems on health, environment, economical & all other aspects of life caused by smoking.
- 4) **Smoking:** refers to inhalation of the smoke of burning tobacco encased in cigarettes, pipes, and cigars.
- 5) **Adolescents:** refers to the students studying in the age group between 14-17 years in selected high schools of jammu.
- 6) **High school:** refers to setting for children usually aged between 13 and 17 years.

CONCEPTUAL FRAMEWORK:

The conceptual framework of study is based on 'Imogene Kings Goal Attainment Theory (1971).

REVIEW OF LITERATURE

Review of literature for the present study has been organized under the following headings:

- 1) **Studies related to prevalence of smoking**
- 2) **Studies related to hazards of smoking.**
- 3) **Studies related to effectiveness of structured teaching programme.**

RESEARCH METHODOLOGY: Research methodology is a way to systematically solve the research problem. Research methods are the techniques used by the researcher to structure a study, gather & analyze the information relevant to the research questions.

Research approach

In view of the nature of the problem under study and to accomplish the objectives of the study, quantitative approach was found to be appropriate.

Research Design

Pre Experimental One Group Pre Test Post Test Design.

Sample size & technique

60 adolescents of selected high schools of selected schools of jammu were chosen by Stratified proportionate simple random sampling.

Method of data collection and tool

Self-structured Questionnaire

DATA ANALYSIS

The data was analyzed by descriptive and inferential statistics

SECTION I: Description of demographic variables of subjects.

SECTION II: Assess the knowledge of subjects regarding hazards of smoking.

2.1: Comparison of pre & post test mean knowledge scores of subjects regarding dangers of smoking.

2.2: Comparison of pre & post test level of knowledge (inadequate, moderately adequate, highly adequate) of subjects regarding dangers of smoking

2.3: Aspect wise enhancement of mean % age knowledge scores of subjects regarding general aspects of smoking, dangers of smoking & prevention of smoking.

SECTION III: Association between pre test knowledge scores of subjects with selected demographic variables**Section I: Findings related to demographic variables.****Table no.1 Frequency and percentage distribution of subjects according to demographic variables.**

N =60

Variables	Category	Frequency (f)	Percentage (%)
Age	Less than 15 years	35	58.33
	Greater than 15 years	25	41.66
	Total	60	100
Gender	Male	30	50
	Female	30	50
	Total	60	100
Educational status of father	Illiterate	3	5
	Middle pass	5	8.3
	Secondary	12	20
	Higher secondary	16	26.66
	Graduate	15	25
	PG	9	15
	Total	60	100
Educational status of mother	Illiterate	14	23.33
	Middle pass	8	13.33
	Secondary	10	16.66
	Higher secondary	6	10
	Graduate	12	20
	PG	10	16.66
	Total	60	100
Residence	Rural	23	38.33
	Urban	37	61.66
	Total	60	100
Type of family	Nuclear	30	50.0
	Joint	30	50.0
	Total	60	100.0
Family income per month	Less than 10000	20	33.33
	10000 to 30,000	32	53.33
	Greater than 30,000	8	13.33
	Total	60	100.0

Data in table 1 revealed that out of 60 majority of the study subjects 35(58.33) were in the age group of less than 15 years. 30(50%) were males and 30 (50%) were females. In majority of the study subjects 16(26.66) educational status of father was upto higher secondary level. In majority of the study subjects mothers were illiterate 14(23.33). Majority of study subjects 37 (61.66) were residing in urban areas. 30(50%) were living in nuclear family and 30(50%) were living in joint family. Majority 30(53.33%) had 10000-30000 Rs monthly family income .

Section II. Analysis and interpretation of knowledge of subjects regarding hazards of smoking.

Table 2. Mean, median, S.D, range of pre and post test knowledge scores of subjects regarding dangers of smoking.

N=60

Group	Mean	Median	Standard deviation	Minimum	Maximum	Range
Pre test score	18.16	21.00	2.88	7.00	18.00	17.00
Post test score	24.44	29.00	2.46	17.00	24.00	13.00

Table 3. Comparison of pre & post test mean knowledge scores of subjects regarding dangers of smoking.

To test research hypothesis, following Null Hypothesis was formulated.

H₀ : There is no significant difference between the pre test and post test knowledge scores regarding dangers of smoking among adolescents.

n=60

Group	Mean score	Standard deviation	Mean Difference	P Value
Pre test score	18.16	2.88	6.28	≤0.005
Post test score	24.44	2.46		

Table 4 .Comparison of pre & post test level of Knowledge of subjects regarding dangers of smoking

n=60

Level of Knowledge	Score	Pre test		Post test	
		Frequency	%age	Frequency	%age
Inadequate	≤50%	18	30%	0	0%
Moderately Adequate	51-75%	40	66.66%	15	25%
Highly adequate	>75%	2	3.33%	45	75%
Total		60	100%	60	100%

Section 3: Analysis and interpretation of data to find out an association between pre –test knowledge scores of subjects with selected demographic variables.

Table 5. Association between pre –test knowledge scores of subjects with selected demographic variables

Here the researcher tests the null hypothesis H_0 : There is no significant association between pre test knowledge scores of subjects with their selected demographic variables

n=60

Variables	Category	Pre test mean / standard deviation	Mean difference	P value
Age	Less than 15 years	20.00±4.15	0.42	0.57 N.S
	Greater than 15 years	20.42±3.82		
Gender	Male	20.90± 3.54	1.42	0.11 N.S
	Female	19.47 ± 4.32		
Educational status of father	Illiterate	18.25±5.11	0.66	0.11 N.S
	Middle pass	18.91±5.38	0.78	
	Secondary	19.69±3.06	3.03	
	Higher secondary	22.72±1.95	2.25	
	Graduate	20.47± 3.90	1.33	
	PG	21.80±4.08	3.55	
Educational status of mother	Illiterate	18.03±4.82	3.49	0.03 S*
	Middle pass	21.52± 2.83	0.83	
	Secondary	20.69±3.61	0.59	
	Higher secondary	21.28±3.54	0.38	
	Graduate	21.66±2.17	1.41	
	PG	20.25±4.34	2.22	
Residence	Rural	19.51±3.25	1.14	0.05 N.S
	Urban	20.65±4.41		
Type of family	Nuclear	20.82±3.90	1.27	0.15 N.S
	Joint	19.55±4.03		
Family income/month	Less than 10000	18.92±4.23	1.89	0.16 N.S
	10000 to 30,000	20.81±4.15	0.15	
	Greater than 30,000	20.66±2.97	1.74	

Note: N.S –Not significant. S* -Significant at $p \leq 0.05$ level

The data presented in table 6 indicates that there is significant association between pre test knowledge score with demographic variable as Educational status of mother, evidenced that there was statistically association at $p \leq 0.05$ level and no association was found with variables as Age , Gender, Educational status of father, residence, Type of Family, Family income.

Hence the investigator accepted the Null hypothesis (H_0 : There is no significant association between pre test knowledge scores of subjects with their selected demographic variables) & rejects the Research hypothesis (H_2 : There is significant association between pre-test knowledge scores of adolescents regarding hazards of smoking with their selected demographic variables i.e. age of adolescents, gender, educational status of father, educational status of mother, , residence, type of family, family income) at $p \leq 0.05$.

CONCLUSION

Based on the analysis of the findings, the following inferences were drawn. There was evident increase in the knowledge scores in all the areas included in the study after administration of STP. Thus it was proved that STP was effective teaching method for creating awareness regarding dangers of smoking among adolescents of selected high schools in Jammu.

RECOMMENDATIONS

On the basis of present study following recommendations have been made for further study:

- Similar study may be replicated on large samples to generalize the findings.
- A comparative study may be conducted between urban & rural adolescents.
- A study may be conducted on degree college students, health clinics & community organisations that have access to adults & want to have an impact on health of community.

- A descriptive study can be conducted on knowledge regarding hazards of smoking.
- A study can be conducted by including additional demographic variables like religion, occupation of parents etc.
- Manuals, information booklets and self-instruction module may be developed in areas of hazards of smoking among high school students.

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