JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

A PRE-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING HAZARDS OF SMOKING AMONG ADOLESCENTS IN SELECTED HIGH SCHOOLS OF DISTRICT PATIALA, PUNJAB.

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Abstract

A large volume of data has accumulated on the issues of smoking and health worldwide. The relationship between smoking use and health stems initially from clinical observations about lung cancer, the first disease definitively linked to tobacco use. Almost 35 years ago, the Office of the Surgeon General of the United States Health Service reviewed over 7000 research papers on the topic of smoking and health, and publicly recognized the role of smoking in various diseases, including lung cancer. Since then, numerous studies have been published that substantiate the strong association of smoking use with a variety of adverse human health effects, most prominently with cancer and cardiovascular diseases. Cigarette smoking is regarded as a major risk factor in the development of lung cancer, which is the main cause of cancer deaths in men and women in the United States and the world. Major advances have been made by applying modern genetic technologies to examine the relationship between exposure to smoking and the development of diseases in human populations. Based on these evidences a pre-experimental study was conducted to assess the effectiveness of Planned Teaching Programme on knowledge regarding hazards of smoking among adolescents in selected high schools of district Patiala, Punjab. A quantitative research approach pre-experimental one group pre-test post-test research design was adopted to achieve the objectives of the study. The target population was adolescents of selected high schools of district Patiala, Punjab. Sixty subjects were selected for study by stratified proportionate simple random sampling technique. The study was approved by the institutional ethical review board and informed consent was obtained from all the respondents. The analysis of the mean and standard deviation of the knowledge score in pre-test and post-test revealed that the mean pre-test knowledge score was 10.2±3.183 whereas post-test score was 22.93±2.51. The findings revealed that there was significant difference between pretest and postest mean scores which indicated that planned teaching programme was effective among adolescents in the experimental group. The findings also revealed that significant association was found between the pre-test knowledge score with these demographic variables (age and type of family of adolescents).

Key words: Assess Effectiveness, Planned Teaching Program, Knowledge, Hazards, Smoking, and Adolescents.

INTRODUCTION

Health is a state of complete physical, social and mental well-being and not merely the absence of disease or infirmity. Good health is a secret of every happy man. There is an old saying,—Health is Wealth.''[1]

Health is a wonderful gift given by God. It's our duty to preserve it and 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]

The Tobacco plant (Nicotiania tobaccum), which was originally cultivated in America thousands of years ago, spread throughout the world after the arrival of the first European settlers. Each culture developed its own form of tobacco consumption, and tobacco is now consumed in a multitude of forms. In South Asia, tobacco is smoked in clay pipes called 'suipa' where as in north Africa, it is smoked in water pipes called 'shisha'or 'Hubbly bubbly'. Beedis are predominant form of tobacco use in India.[4]

According to the study, "A Nationally Representative Case-Control Study of Smoking and Death in India", tobacco will be responsible for 1 in 5 of all male deaths and 1 in 20 of all female deaths in the country by 2010. This means approximately 1 million Indians would die annually from smoking by 2010. According to a WHO estimate, 70% of adult males in India smoke. Among adult females, the figure is much lower at between 13–15%. About 90% of children under the age of 16 years (10th class) have used some form of tobacco in the past, and 70% are still using tobacco products. Smokeless is more prevalent than cigarettes or bidis in India. [5]

Cigarettes are smoked throughout the world; and are dominant form of tobacco use worldwide. There are 5.5 trillion cigarettes produced yearly, enough to provide 1000 cigarettes to every man, woman and child on the planet.[6]

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 others. It is no surprise that secondhand smoke has been designated a known human carcinogen (cancer-causing agent). Further, about half of regular smokers will die of a smoking-related disease and have a reduced life expectancy of about 13 to 16 years as compared to non-smokers.[7]

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 10 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.[8]

India is the second largest consumer of tobacco. GATS-2(Global Adult Tobacco Survey) reports that 28.6% of the population consume tobacco in any form, 10.7% smoke. Compared with GATS 2010, there has been a 6% decrease in the tobacco consumption recorded in GATS 2017. During the gap of 7 years, all forms of tobacco consumption had increased; greatest numbers were seen between 15 and 24 years. Tobacco use in children and adolescents is reaching pandemic levels. Effective tobacco control should be a top priority. If current smoking trend continue, tobacco will kill nearly 250 million of today's children.[11]

According to the study, "A Nationally Representative Case-Control Study of Smoking and Death in India", tobacco will be responsible for 1 in 5 of all male deaths and 1 in 20 of all female deaths in the country by 2010. This means approximately 1 million Indians would die annually from smoking by 2010.9 According to the Indian Heart Association (IHA), India accounts for 83% of the world's heart disease burden, despite having less than 20% of the world's population. The IHA has identified reduction in smoking as a significant target of cardiovascular health prevention efforts.[12]

A survey conducted by the International Institute of Population Science and the Ministry of Health and Family Welfare, reveals that 56.6% of people in Kolkata smoke, the highest rate in the country. 82% of men and 23.5% of women smoke in Kolkata.The highest number of beedi smokers are in Uttarakhand.[13]

Upendra M bhojani, Maya A Elias et al (2011) conducted a cross –sectional study on 1087 adolescent's perceptions about smokers in Karnataka, India. 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).[14]

OBJECTIVES OF THE STUDY

- To assess the pre-test knowledge score regarding hazards of smoking among adolescents of selected high schools of district Patiala, Punjab.
- To plan and implement Planned Teaching Programme on knowledge regarding hazards of smoking among adolescents of selected high schools of district Patiala, Punjab.
- To assess the post-test knowledge score regarding hazards of smoking among adolescents of selected high schools of district Patiala, Punjab.
- To assess the effectiveness of Planned Teaching Programme regarding hazards of smoking among adolescents of selected high schools of district Patiala, Punjab.
- To determine the association between pre-test knowledge score of adolescents regarding hazards of smoking with their selected sociodemographic variables.

RESEARCH HYPOTHESES

- **H0:** There is no significant difference in mean pre-test knowledge score and mean post-test knowledge score after administration of Planned Teaching Programme.
- **H1:** There is significant difference between pre-test knowledge and post- test knowledge scores regarding hazards of smoking among adolescents.
- **H2:** There is significant association between the pre-test knowledge scores regarding hazards of smoking among adolescents with their selected socio- demographic variables

METHODLOGY

A quantitative pre-experimental one group pre-test post-test research design was conducted to evaluate the effectiveness of Planned Teaching Programme on knowledge regarding the hazards of smoking among adolescents of selected high schools of District Patiala, Punjab. Sixty subjects were selected for study by stratified proportionate simple random sampling technique. The study was approved by the institutional ethical review board and informed consent was obtained from all the respondents. Socio-demographic data and self structured questionnaire of planned teaching programme was taken as tool. The pretest was conducted on the Ist day and On10th day post-test was conducted to assess the knowledge. After data collection, the data was analysed by using descriptive and inferential statistics.

RESULTS

Table No. 1: Frequency and percentage distribution of socio-demographic variables of adolescents of selected high schools.

Sociodemographic Variables	Category	Percentage	Frequency
Age (in years)	Less than 15 years	46.7%	28
	Greater than 15 years	53.3%	32
Gender	Female	33.3%	20
	Male	66.7%	40
Educational status of Father	Illiterate	13.3%	8
	Middle Pass	8.3%	5
	Secondary	26.7%	16

	Higher Secondary	11.7%	7
	Graduate	31.7%	19
	P.G	8.3%	5
Residential Area	Rural	45.0%	27
	Urban	55.0%	33
Type of Family	Nuclear Family	46.7%	28
	Joint Family	53.3%	32
Family History of Smoking	Yes	50.0%	30
	No	50.0%	30

The table in this study portrayed that (53.3%) of adolescents belonged to the age group greater than 15 years, 46.7% belonged to age group of less than 15 years. The study revealed that 66.7% of adolescents were males and 33.3% were females.

The data in the table showed that 8.3% of the adolescents' fathers were illiterate, 8.3% were middle pass, 26.7% were educated up to secondary level, 11.7% were educated up to higher secondary level, 31.7% were graduates and 8.3% were post graduates.

The data depicted that 33.3% of the adolescents' mothers were illiterate, 18.3% were middle pass, 16.7% were educated up to secondary level, 10.0% were educated up to higher secondary level, 15% were graduates and 6.7% were post graduates.

The results in the above table mentioned that 55% of the adolescents were from urban areas and 45.0% of the adolescents were from the rural areas.

The findings in the table also showed that, 46.7% of the subjects belonged to nuclear family and 53.3% belonged to joint family.

The above mentioned table also concluded that 50.0% adolescents had family history of smoking.

Table No. 2: Percentage and frequency distribution of level of pre- test knowledge scores of adolescents regarding hazards of smoking. N=60

Criteria Measure Of Pretest Knowledge Score	
Score Level (n= 60)	Pre-Test (f%)
Inadequate.(0-10)	38(63.3%)
Moderate.(11-20)	21(35%)
Adequate.(21-30)	1(1.7%)

The data in the table 2 showed that majority (63.3%) adolescents were having inadequate knowledge score, followed by 35% having moderate knowledge and 1.7% having adequate knowledge regarding hazards of smoking.

Table No. 3: Mean, Median, Range, and S.D. of the pre-test knowledge score of adolescents regarding hazards of smoking. N=60

Level	**Mean**	**S.D.**	**Median Score**	**Maximum**	**Minimum**	**Range**	**Mean %**
Pretest Knowledge	10.20	3.183	10	23	5	18	34.00

The data in the above table depicted that the mean, median, range and SD of the knowledge of adolescents regarding hazards of smoking. The mean pre-test knowledge score was 10.20; standard deviation was 3.183with median 10 and range 18. Maximum scores obtained were 23 and minimum scores were 5 out of total possible score of 30. Pre- test mean percentage of knowledge was 34%.

Table No. 4: Percentage and frequency distribution of levels of post- test knowledge scores of adolescents regarding hazards of smoking. N= 60

Criteria Measure Of Posttest Knowledge Score	
Score Level (N= 60)	Posttest (f%)
Inadequate.(0-10)	0(0%)
Moderate.(11-20)	14(23.3%)
Adequate.(21-30)	46(76.7%)

The results showed in the table 4 depicted that percentage distribution of post- test knowledge score of adolescents regarding hazards of smoking, where majority (76.7%) of adolescents were having adequate knowledge score followed by 23.3% having moderate knowledge and none had inadequate knowledge regarding hazards of smoking.

Table No. 5: Mean, Median, Range, and S.D. of the post-test knowledge score of adolescents regarding hazards of smoking. N= 60

level	Mean	S.D.	Median Score	Maximum	Minimum	Range	Mean%
Posttest Knowledge	22.93	2.510	23	27	18	9	76.40

The findings in the table 5 depicted that the mean, median, range and SD of the knowledge of adolescents regarding hazards of smoking. The mean post- test knowledge score was 22.93; standard deviation was 2.510 with median 23 and range 9. Maximum scores obtained were 27 and minimum scores were 18 out of total possible score of 30. Post- test mean percentage of knowledge was 76.40%.

Table No. 6: Level of pre- test knowledge score and post- test knowledge score of adolescents regarding hazards of smoking.

Criteria Measure Of Knowledge Score		
Score Level (n= 60)	Pretest (f%)	Posttest (f%)
Inadequate.(0-10)	38(63.3%)	0(0%)
Moderate.(11-20)	21(35%)	14(23.3%)
Adequate.(21-30)	1(1.7%)	46(76.7%)

The results in the table 6 also revealed that 63.3% of adolescents had inadequate knowledge score, followed by 35% having moderate pre- test knowledge score, 1.7% having adequate knowledge score regarding hazards of smoking. 76.7% had adequate knowledge score followed by 23.3% were having moderate knowledge score regarding hazards of smoking.

Table No. 7: Comparison of Mean± SD, Mean percentage, Range and Mean difference of pre- test and post- test knowledge scores. N= 60

Criteria	Mean±S.D.	Mean%	Range	Mean diff.	Paired t-test	P value	Table value at 0.05
Pretest Knowledge	10.2±3.183	34.00	5-23	12.730	26.79 *Sig	<0.001	2.00
Posttest Knowledge	22.93±2.51	76.40	18-27				

The analysis in the above table 7 showed that pretest Mean± S.D knowledge score was 10.2±3.183 pre-test, Mean percentage was 34.00% and pretest Range was 5-23. Post- test Mean± S.D was 22.93±2.51, post-test Mean percentage was 76.40% and posttest Range was 18-27. Mean difference was 12.730, calculated paired t-test was 26.79 and tabulated t-value was 2.00.Referring to tabulated t-value (2.00), the tabulated t-value was less than calculated t-value (26.79). As there was significant difference between mean pre-test knowledge score and mean post-test knowledge score at0.05 level of significance after administration of planned teaching program hence H1 hypothesis was accepted and null hypothesis was rejected

As long as concern association point of view the findings of this study concluded that there was significant association between the pre-test knowledge score with age of adolescents and type of family of adolescents as the table value was less than calculated. Chi- square value at 0.05 level of significance. Thus H2 hypothesis was accepted.

CONCLUSIONS

The focus of this study was to evaluate the effectiveness of the planned teaching programme on regarding smoking among adolescents in selected schools of District patiala Punjab. In this study quantitative approach, pre-experimental one group pre-test post-test research design was used.60 samples were drawn from population using stratified proportionate sampling technique. The data was collected by socio-demographic variables and the self structured knowledge questionnaire. Data was analysed and interpreted by applying the knowledge of the students regarding smoking was inadequate in the pre-test whereas the knowledge level has improved after planned teaching programme.

Planned teaching programme was effective in improving the knowledge of the adolescents regarding smoking. Significant difference was experienced between the pre-test and post-test knowledge scores. These scores were demonstrated by using paired -'t' test. The analysis of the mean and standard deviation of the knowledge score in pre-test and post-test revealed that the mean pre-test knowledge score was **10.2±3.183** whereas post-test score was **22.93±2.51.** This high mean difference **12.730** showed the effectiveness of PTP. The findings also revealed that significant association was found between the pre-test knowledge score with these demographic variables (age and type of family of adolescents).

RECOMMENDATIONS

On the basis of the finding of the study it is recommended that:

- A similar study can be undertaken with a large sample for better generalization of the finding.
- A similar study can be done among under graduate students.
- A descriptive study can be done to identify the knowledge regarding hazards of smoking among adolescents..
- A cohort study can be done to determining the prevalence of smoking among adolescents.
- A comparative study can be conducted among students of urban and rural areas regarding hazards of smoking among adolescents.
- A comparative study can be conducted between the effects of self-instructional module and Planned teaching programme on hazards of smoking among adolescents.

ACKNOWLEDGEMENT:

With profound gratitude I am deeply indebted to my co-authors specially Dr. Masood Ahmad Sheikh (Nursing Expert and Associate Guide) who helped me in stimulating suggestions, knowledge, experience and encouragement and helped me in all the times of research period. I am also grateful to all my family members who morally supported throughout the construction of view successfully.

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