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A STUDY TO EVALUATE THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON THE KNOWLEDGE REGARDING TOBACCO AND HEALTH AMONG ADOLESCENTS IN SELECTED COLLEGES AT JAIPUR

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ABSTRACT

Introduction: Health is a priceless gift, and preserving it is essential for a healthy life. Individual behaviours significantly impact well-being, as ill health often results from personal choices rather than fate. Smoking dates back to 5000 BC and has been part of various cultures worldwide. Tobacco cultivation began in the Americas, particularly in the Peruvian and Ecuadorian Andes. In India, cannabis smoking has been practiced for over 4000 years. Understanding these historical aspects highlights the importance of informed health decisions. **Material & Method:** The study employed an evaluative research approach with a pre-experimental one-group pre-test post-test design at Tirupati College and St. Wilfred College, Jaipur. A total of 100 adolescents were selected through purposive sampling. The structured teaching program on tobacco and health was the independent variable, while knowledge level was the dependent variable. Data collection included socio-demographic and knowledge questionnaires. A pilot study confirmed feasibility. Formal permissions were obtained, and data collection took 20–30 minutes, with informed consent secured from participants. **Result:** The study found that 55% of participants were aged 17-18, 68% were male, and 60% used tobacco, with 65% lacking prior knowledge. The pre-test mean score of 18.69 (SD = 5.02) increased to 21.89 (SD = 4.77) post-test, with a significant 't' value of 12.67, confirming the intervention's effectiveness. Post-test scores were highest for smoking-related psychological illness (75.37%), followed by physical illness (61.58%) and general knowledge (51.8%), highlighting improved awareness of tobacco-related health risks. **Conclusion:** The study confirmed the effectiveness of a structured teaching program in improving adolescents' knowledge of tobacco-related health risks, with significant post-test score improvements, emphasizing the need for educational interventions.

Keywords: Effectiveness, Planned Teaching Programme, Knowledge, Tobacco and Health, Adolescents.

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INTRODUCTION

Health is a wealth and wonderful gift given by god. It's our duty to preserve it to lead a healthy life. Good health is a priceless asset. The personal decisions on behavior affect the prospects for good health and that ill health is not solely a consequence of illume but frequently a direct consequence of behavior under individual's control.[1]

The history of smoking can be dated to as early as 5000 BC, and has been recorded in many different cultures across the world. Tobacco has been cultivated and smoked in the Americas for at least 5000 years, originating in the Peruvian and Ecuadorian Andes. The smoking of cannabis in India has been practiced for over 4000 years.[2]

Early smoking evolved in association with religious ceremonies; as offerings to deities, in cleansing rituals or to allow shamans and priests to alter their minds for purposes of divination. After the European exploration and conquest of the Americas, the practice of smoking tobacco quickly spread to the rest of the world. In regions like India and Sub-Saharan Africa, it merged with existing practices of smoking .[3]

Tobacco smoke contains nicotine, an addictive stimulant. The effect of nicotine in first time or irregular users is an increase in alertness and memory, and mild euphoria. In chronic users, nicotine simply relieves the symptoms of nicotine withdrawal: confusion, restlessness, anxiety, insomnia, and dysphonia.[4]

Nicotine also disturbs metabolism and suppresses appetite. This is because nicotine, like many stimulants, increases blood sugar. Medical research has determined that chronic tobacco smoking can lead to many health problems, particularly lung cancer, emphysema, and cardiovascular disease. 8th adverse effects of smoking are extensive. Smoking is closely associated with respiratory cancer and COPD and conditions related to heart. [5]

Smoking in pregnancy is associated with increased risk for reduced birth weight for gestational age. [6]

NEED OF THE STUDY

In India tobacco use is estimated to cause 800,000 deaths annually of which 6,00,000 should be due to bides alone. India has 74 million smokers. A National Cancer Institute study showed high rates of lung cancer in smokers (6.3/1000) and in former smokers who had smoked within the past 15 years (4.9/1000 screens). In contrast, lung cancer detection among non- smokers was 0.4/1000 screens. India is the world's second largest producer of tobacco. The country manufactured 95.6 billion cigarettes in 2017. Nicotine dependence is the most common substance abuse disorder in US, where about 25% of population is addicted to tobacco.[7]

Tobacco use is one of the major preventable causes of death and disability worldwide. The emergence of tobacco related diseases burgeoning public health problem. According to recent WHO estimates, 4.9 million deaths annually are attributed to tobacco. This figure is expected to rise to 10 million in 2030, with 7 million of these deaths occurring in developing countries, mainly China and India. Currently about one-fifth of all worldwide deaths attributed to tobacco occur in India, more than 8,00,000 people die and 12 million people become ill as a result of

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tobacco use each year. Despite thousands of studies showing that tobacco in all its form skills its users, and smoking cigarettes kills non-users, people continue to smoke, and deaths from tobacco use continue to increase.[8]

The increasing prevalence of tobacco use among adolescents poses a significant public health challenge, necessitating effective educational interventions. Adolescents often lack adequate knowledge about the harmful effects of tobacco on health, leading to early initiation and long-term dependence. A planned teaching program can serve as a strategic approach to enhance awareness, alter perceptions, and promote behavioral changes. Evaluating the effectiveness of such programs is crucial in developing evidence-based educational strategies. This study is essential to assess the impact of structured teaching on adolescents' knowledge and to contribute to preventive health measures, ultimately reducing tobacco-related morbidity and mortality in society.

AIM OF THE STUDY

This study aims to assess the impact of a planned teaching program on adolescents' knowledge about tobacco and its health effects. It evaluates how structured education influences awareness and understanding of tobacco-related risks. The findings will help develop effective strategies for tobacco prevention among young individuals.

OBJECTIVES OF THE STUDY

1. To assess the existing level of knowledge of adolescences regarding tobacco and health by pretest.
2. To develop and introduce planned teaching programme regarding tobacco and health.
3. To assess the post test level of knowledge of adolescences regarding tobacco and health by post test.
4. To determine the effectiveness of planned teaching programme on knowledge regarding tobacco and health
5. To find the association between the pre test level of knowledge with the selected demographic variables.

HYPOTHESES

- **Ho_1:** There will be no significant difference between the pre test and post test scores on knowledge regarding tobacco and health among college students.
- **Ho_2:** There will be no significant association between knowledge of adolescent with their selected socio demographic variables.

MATERIALS AND METHODS

Research approach: Evaluative research approach was used.

Research design: Pre experimental one group pre test post test research design was used for present study.

Setting of the study: Tirupati College, Jaipur and St. Wilfred College, Jaipur

Population: Adolescents studying in selected college of Jaipur

Sample and sample size: Sample consist a total number of 100 adolescents who were studying in Tirupati College, Jaipur and St. Wilfred College, Jaipur

Sampling technique: Purposive Sampling technique was used for the present study. Study variables:

Independent variable: Planned teaching programme regarding tobacco and health.

Dependent variable: Knowledge Levels of the adolescents

Extraneous variables: Age, Gender, Religion, Educational status of father, educational status of mother, occupation of father, occupation of mother, Type of family, Residential area, Family income, Habit of tobacco, previous knowledge.

INCLUSION CRITERIA

- Who are studying in Tirupati College and St. Wilfred College, Jaipur
- College students who are present during the time of data collection.
- College students who are willing to participate in the study.

EXCLUSION CRITERIA

- Students who are critically ill.
- Students those are not willing to participate in the study.

DATA COLLECTION INSTRUMENTS & TECHNIQUES:

Section – I: Socio- demographic data consist of Age, Gender, Religion, Educational status of father, educational status of mother, occupation of father, occupation of mother, Type of family, Residential area, Family income, Habit of tobacco, previous knowledge.

Section – II: Knowledge questionnaire on knowledge of tobacco and health consists of 30 items which includes general information, physical illness and psychological illness due to tobacco use.

Intervention: structured teaching programme regarding tobacco and health among the adolescents

Pilot study: A pilot study was conducted among 10 adolescents from Tirupati College, Jaipur, in the same manner as final study. Adolescents were selected using purposive sampling technique for the purpose of pilot study. They were assessed for knowledge level by the pre test using the research tools and then planned teaching programme on tobacco and health was given. After a week post assessment was conducted to check the knowledge level using the research tool. The tool was found to be satisfactory in terms of simplicity and clarity. Based on the findings of the pilot study it was concluded that it was feasible and practicable to conduct the main study and criterion measures were found to be effective.

DATA COLLECTION PROCEDURE:

A formal written permission was obtained from the principal of Tirupati College, Jaipur and St. Wilfred College, Jaipur. The data collected from adolescents in selected colleges from Tirupati College, Jaipur and St. Wilfred College, Jaipur who fulfilled the inclusion criteria. Socio demographic variables and Knowledge questionnaire on knowledge of tobacco and health was administered to collect background information and level of adolescents in selected colleges. The data collection took 20–30 minutes. Before conducting the study, consent was taken from them by explaining the purpose of the study.

RESULTS

Section: I – Distribution of socio Demographic variables of adolescents

Section: II – Area wise mean Distribution of pre test and post test knowledge level regarding knowledge of tobacco and health.

Section: III – Evaluate the effectiveness of planned teaching programme regarding knowledge of tobacco and health.

SECTION: I – DISTRIBUTION OF SOCIO DEMOGRAPHIC VARIABLES OF ADOLESCENTS

Table No. 1: Frequency and percentage distribution of adolescence

S. No.	Variables	Frequency	Percentage
1.	**Age in years**		
	17-18 years	55	55%

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	18-19 years	45	45%
2.	**Gender**		
	Male	68	68%
	Female	32	32%
3.	**Religion**		
	Hindu	58	58%
	Christian	10	10%
	Muslims	22	22%
	Others	10	10%
4.	**Educational status of father**		
	No formal education	10	10%
	Primary education	35	35%
	Secondary education	30	30%
	Graduate/ Post graduate	25	25%
5.	**Educational status of mother**		
	No formal education	20	20%
	Primary education	45	45%
	Secondary education	25	25%
	Graduate/ Post graduate	10	10%
6.	**Occupation of father**		
	Govt. job	20	20%
	Private job	55	55%
	Business	05	05%
	Other	20	20%
7.	**Occupation of mother**		
	Govt. job	05	05%
	Private job	38	38%
	Business	02	02%
	House wife	55	55%
8.	**Type of family**		

	Joint family	55	55%
	Nuclear family	35	35%
	Extended	**10**	10%
9.	**Residential area**		
	Rural	35	35%
	Urban	55	55%
	Semi Urban	10	10%
10.	**Family income**		
	<10000	25	25%
	10000 – 20000	55	55%
	>20000	20	20%
11.	**Habit of tobacco**		
	Yes	60	60%
	No	40	40%
12.	**Previous knowledge**		
	Yes	35	35%
	No	65	65%

The study analyzed the demographic distribution of participants, revealing that 55% were aged 17-18 years, and 68% were male. Most were Hindu (58%), and 25% of fathers and 10% of mothers had graduate or postgraduate education. Regarding occupation, 55% of fathers worked in private jobs, while 55% of mothers were housewives. 55% lived in urban areas, and 55% had a monthly income between 10,000 – 20,000. Tobacco use was reported by 60%, while 65% lacked prior knowledge about its effects. These findings highlight the need for educational interventions to raise awareness among adolescents.

SECTION: II – AREA WISE MEAN DISTRIBUTION OF PRE TEST AND POST TEST KNOWLEDGE LEVEL REGARDING KNOWLEDGE OF TOBACCO AND HEALTH

It represents that the knowledge of tobacco and health score of adolescents in selected colleges at Jaipur had obtained highest score in the aspect of smoking related to Psychological illness with range of 0-8 mean 6.35 standard deviation 3.82 with mean percentage 58.37, smoking related to physical illness with range of 0-12 mean 5.35 standard deviation 1.28 with mean percentage 44.58, general information on ill effects of smoking with range of 0-10 mean 4.67 standard deviation 2.15 with mean percentage 63.5.

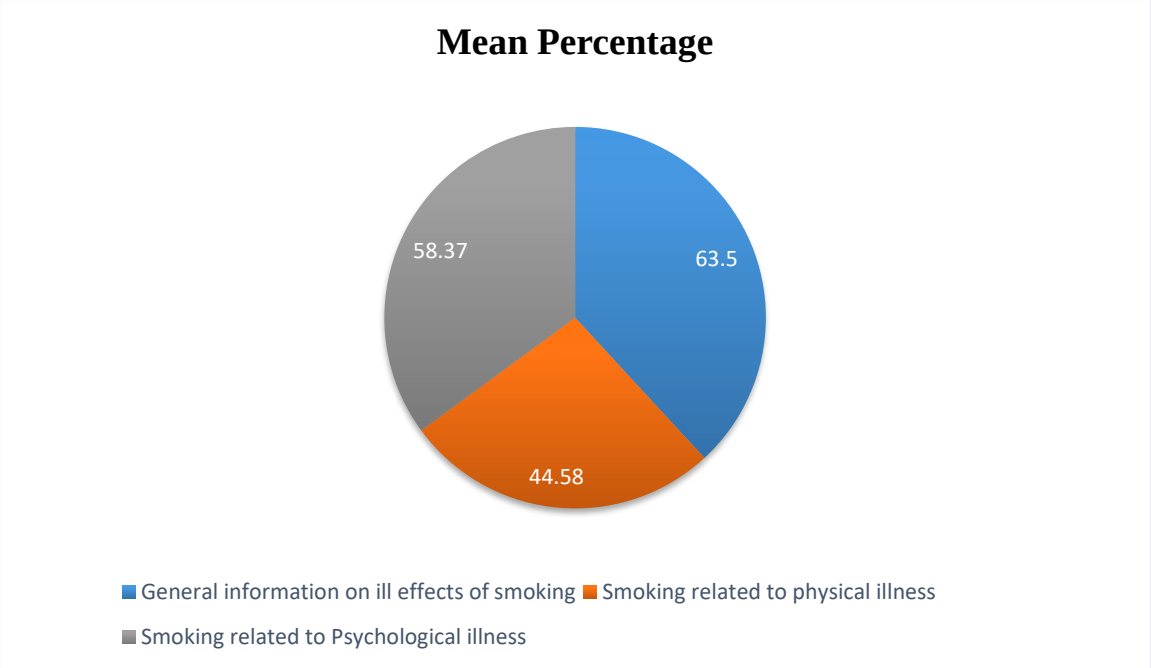

Fig 1: Pre-test area wise level of knowledge score

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It revealed that the knowledge of tobacco and health score of adolescents in selected colleges at Jaipur had obtained highest score in the aspect of smoking related to physical illness with range of 1-12 mean 7.39 standard deviation 2.02 with mean percentage 61.58, smoking related to psychological illness with range of 1-8 mean 6.03 standard deviation
2.29 with mean percentage 75.37, General information on ill effects of smoking with range of 1-10 mean 5.18 standard deviation 3.21 with mean percentage 51.8.

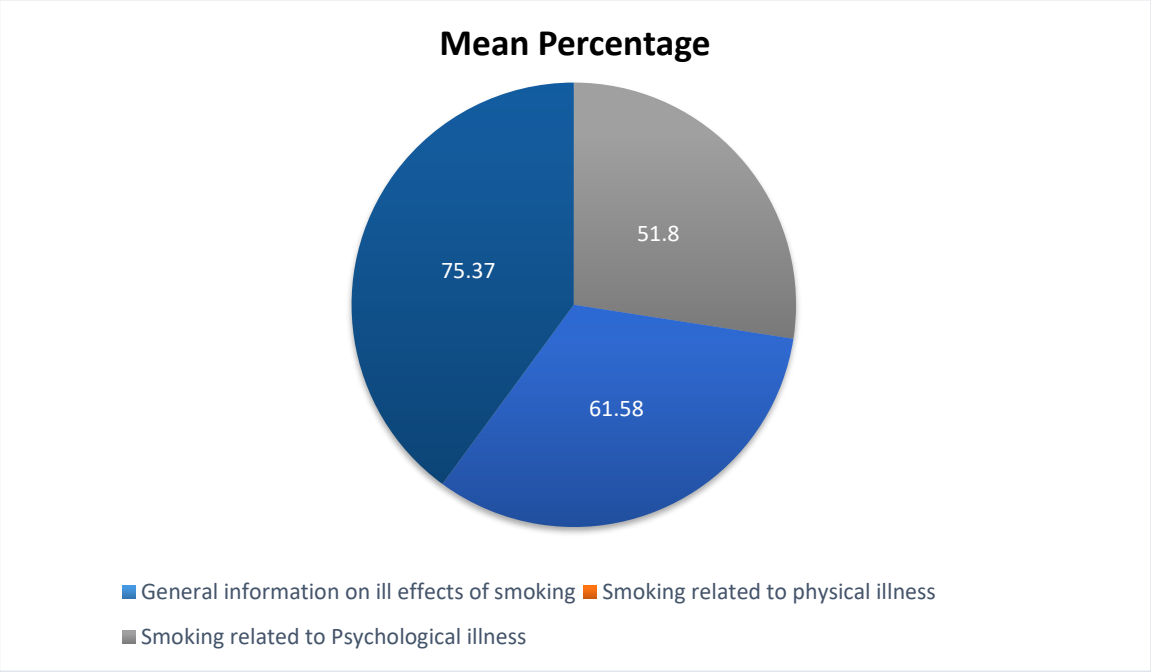

Fig 2: Post test area wise level of knowledge score.

SECTION: III – EVALUATE THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME REGARDING KNOWLEDGE OF TOBACCO AND HEALTH

Table 2: Association between pre test and post test

Aspect	Samples	Mean	Mean Percentage	SD	't' value	d. f	'p' value
Pretest	100	18.69	62.3%	5.02	12.67	99	0.05
Posttest	100	21.89	72.96%	4.77			

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The above table no. 2 depicts the pretest mean score of knowledge was 18.69 with the standard deviation 5.02, and the post test mean score of knowledge was 21.89 with the standard deviation 4.77. In this study the Calculated 't' value 12.67 is higher than the tabulated 't' value of 1.96. So the H01 hypothesis is rejected and the alternative hypothesis accepted. The researcher concluded the teaching was effective.

DISCUSSION

In our study, 55% of participants were aged 17-18 years, with 68% being male. The majority were Hindu (58%), and 35% of fathers and 45% of mothers had primary education. Most fathers (55%) worked in private jobs, while 55% of mothers were housewives. 55% of participants lived in urban areas and belonged to joint families. 60% used tobacco, and 65% lacked prior knowledge, highlighting the need for education. A similar study by **Ms. Anmol Patel et al.** found that 80% were aged 17-18 years, 60% were male, and 52.50% belonged to joint families. 50% of fathers were graduates, and 45% of mothers had high school education. 82.50% lived in urban areas, with 52.50% having prior knowledge of tobacco use, emphasizing the need for awareness programs.[9]

The pre-test showed the highest knowledge in psychological illness (58.37%), followed by general effects (63.5%) and physical illness (44.58%). Post-test results showed significant improvement, with psychological illness (75.37%), physical illness (61.58%), and general effects (51.8%), confirming the effectiveness of structured teaching programs. A similar study by **Shubhangi Mahesh Gaikwad et al.** found that pre-test knowledge was mostly satisfactory, with 15-20% in the poor category. After the post-test, good, very good, and excellent knowledge levels increased, with excellent knowledge rising from 5% to 43.33%, reinforcing the impact of structured teaching on tobacco awareness.[10]

Our study showed a significant improvement in students' knowledge after the Structured Teaching Program (STP), confirming its effectiveness. The pre-test mean score was 18.69 ± 5.02, which increased to 21.89 ± 4.77 in the post-test. The calculated 't' value (12.67) exceeded the tabulated value (1.96), leading to the rejection of the null hypothesis and acceptance of the alternative hypothesis. Another study by **Devi Nanjappan et al.** revealed that in the pre-test, many students scored less than 50% on knowledge regarding the hazards of smoking and tobacco chewing. However, after receiving a Structured Teaching Program (STP), none of the students scored below 50%. This indicates that the STP was effective in enhancing students' knowledge about the dangers of tobacco use.[11]

CONCLUSION

The study confirms the effectiveness of structured teaching programs in increasing adolescents' awareness of tobacco-related health hazards. Many participants had limited prior knowledge about

the risks, emphasizing the need for educational interventions. Demographic analysis showed that most participants were young, predominantly male, and from urban areas, with varying parental education and occupational backgrounds.

Before the intervention, awareness levels were moderate, with psychological illness being the most recognized consequence of tobacco use. However, knowledge about the general and physical effects of smoking was comparatively lower. After the structured teaching program, there was a noticeable improvement in understanding across all aspects, reinforcing the impact of educational initiatives in addressing misconceptions and increasing awareness.

These findings align with previous research, highlighting the role of structured teaching programs in reducing knowledge gaps and promoting informed decision-making regarding tobacco use. The study underscores the importance of integrating such programs into educational institutions to equip adolescents with essential knowledge, ultimately contributing to the prevention of tobacco-related health risks. Continuous efforts in awareness campaigns and school-based interventions are necessary to sustain and enhance the impact of these educational programs on adolescent health behaviour.

Conflicts of interests: No conflicts of interests.

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