



# A Study to evaluate the effectiveness of Instructional Strategy on health hazards of Smoking in Terms of knowledge among Adolescent Boys and Girls in Selected Schools of Kashmir

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**Abstract.** Smoking is a practice in which a substance is burned and thus resulting smoke is breathed in to be tasted and absorbed into the blood stream. Dried leaves of tobacco plant are commonly used substance which has been rolled into a small, round cylinder called a cigarette [1]. As per WHO approximately more than 8 million deaths occur every year due to Tobacco consumption globally it ranks 2nd as a cause of mortality, comprising over 7% of all deaths of adult men and 5% of deaths of adult women. Of these more than 7 million deaths are result of direct Tobacco use while around 18.5 million are the result of non-smokers being exposed to second-hand smoke. In India smoking rate is about 11.4% (2016). According to survey 2016-2018, the j and k ranks sixth highest among Indian states. In 2019, WHO reports global Tobacco epidemic [2]. Methods of data collection procedure: Data was collected from the adolescent boys and girls to assess the level of knowledge by using semi-structured knowledge questionnaire before and after the implementation of instructional strategy. The collected data was tabulated and analyzed by descriptive and inferential statistics. Results: The result shows, there was a significant difference between pretest and post test level of knowledge regarding health hazards of smoking among adolescent boys and girls. The obtained t-value (7.703) was greater than the table value at 0.05 level of significance. Conclusion: The Instructional strategy was effective ( $p < 0.05$ ) to improve the level of knowledge regarding health hazards of smoking among adolescent boys and girls.

## 1. Introduction

‘SMOKING Kills, If you’re killed, you’ve lost a very important part of your life’ Brooke Shields Smoking is a practice in which a substance is burned and thus resulting smoke is breathed in to be tasted and absorbed into the blood stream. Dried leaves of tobacco plant are commonly used substance which has been rolled into a small, round cylinder called cigarette [1].

As per WHO approximately more than 8 million deaths occur every year due to Tobacco consumption globally it ranks 2nd as a cause of mortality, comprising over 8% of all deaths of adult men and 5% of deaths of adult women. Of these more than 7 million deaths are result of direct Tobacco use while around 18.5 million are the result of non-smokers being exposed to second-hand smoke. In India smoking rate is about 11.4% (2016). According to survey 2016-2018, the j and k ranks sixth highest among Indian states. In 2019, WHO reports global Tobacco epidemic [2]. In India prevalence of smoking and smokeless tobacco use is very high. Taking the data from National Family Health Survey second round (NFHS 1998-99), in India prevalence of tobacco use was estimated to be 37% among the population of 15 years and above. Tobacco use in any form is highly prevalent among school going adolescents aged 13-15 years. The National Household Survey of Drug and Alcohol Abuse conducted in India (2002) among males covered 40,000 individuals aged 12-60 years found prevalence of tobacco use to be 55.8%. [3] Tobacco use is a major risk factor for many chronic diseases, including cancer, lung disease, cardiovascular disease and stroke. Smoking related disease was responsible for about 41 million deaths in the United States, United Kingdom and Canada, cumulatively, from 1960 to 2020. Every million cigarettes smoked leads to one death in the US and Canada, but slightly more than one death in the UK [4]. Global adult tobacco survey (GATS 2009-10) India is a nationally representative household survey among population age 15 and above, covered all the 29 states and 2 union territories (UTs). It was concluded that: Tobacco use in any form was 34.6% among adults. Tobacco smokers: 14.0% of adults. Cigarette smokers: 5.7% of adults. Bidi smokers: 9.2% of adults. [5]

## 2. Material & Methods

This Pre-Experimental One group pre-test post-test design approved by Institutional Ethical Committee of (IUST/IEC-/21) Islamic University Of Science & Technology Awantipora. The Sample Size was 40 adolescent boys & girls. The duration of data collection was one week from 1-Nov.-2021 to 8 Nov.2021. Classroom was used to collect the data from Students and purpose of study was informed. Consent was taken from the students and semi-structured questionnaire was used to collect the responses from students via pen-paper test. The study was based on Maiman & Backers Health Belief Model (1978) and no. of demographic variables were 11 and Chi-Square test was done to determine the association between Score levels and Selected demographic variables. Maximum Score was 30 and Minimum Score was 0. Validity was established by expert opinion and modification was made as per their suggestion, language Validity was established by a qualified person. Formal permission from Institutional Ethical Committee IUST Awantipora. The obtained data was

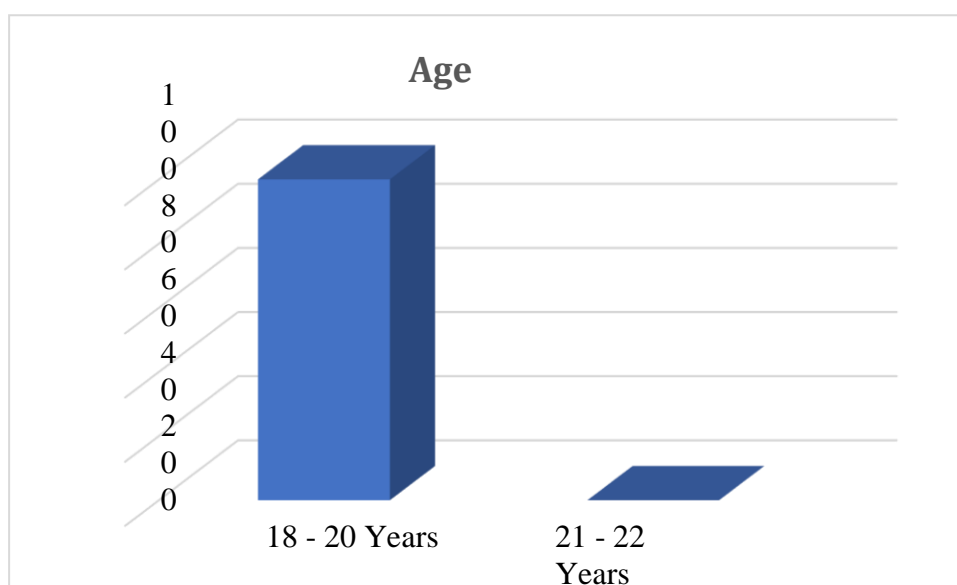
organized in a statistical way to summarize result was visualized scientifically.

**RESULTS:** Socio demographic variables of students. Note: Number of students (n) = 40

**TABLE 1.** Frequency and percentage distribution of socio demographic variables.

S. No	Demographic Variables	Frequency (f)	Percentage (%)
1	<b>Age group (years)</b>		
	18- 20	40	100
	21-22	0	0
2	<b>Gender</b>		
	Male	22	55
	Femae	18	45
3	<b>Type of Family</b>		
	Nucler	15	37.5
	Joint	25	62.5
4	<b>Residence</b>		
	Rural	21	52.5
	Urban	19	47.5
5	<b>Father Education</b>		
	Illiterate	4	10
	Primary	9	22.5
	Secondary	16	40
	Graduate & Above	11	27.5
6	<b>Mother Education</b>		
	Illiterate	17	42.5
	Primary	8	20
	Secondary	7	17.5
	Graduate & Above	8	20

Table summarizes that the demographic characteristics of adolescents among 40, with regards to age (100%) were 18-20years, (0%) were 21-22years. Based on gender 55% of the students were male whereas 45% were female. This shows that majority of students were male. Based on the type of family majority (62.5%) of the samples/students were belonging to joint family whereas only 37.5% were belonging to the nuclear family. Based on residence of the students, majority (52.5%) were from rural areas whereas 47.5% were from urban areas. Based on the educational status of the fathers of the student majority (40%) were having primary education, 27.5% were graduate & above, 22.5% were having primary education, only 10% were illiterate. Based on the educational status of the mothers of the students, majority (42.5%) were illiterate, 20% were having primary education, 20% were having graduate & above, Only 17.5% were having secondary education.



**FIGURE 1.** Percentage and frequency distribution of students with respect to age

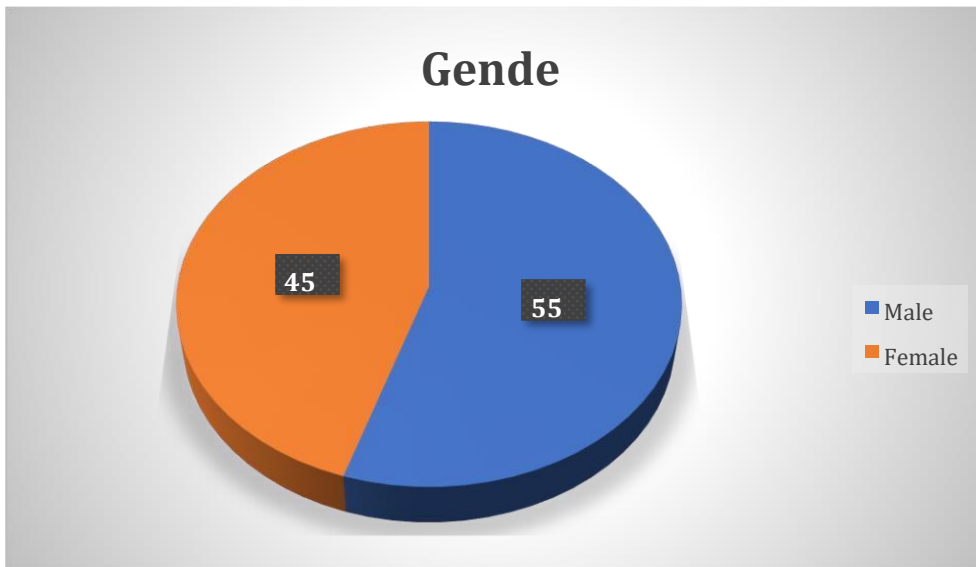


FIGURE 2. Percentage distribution of students with respect to gender

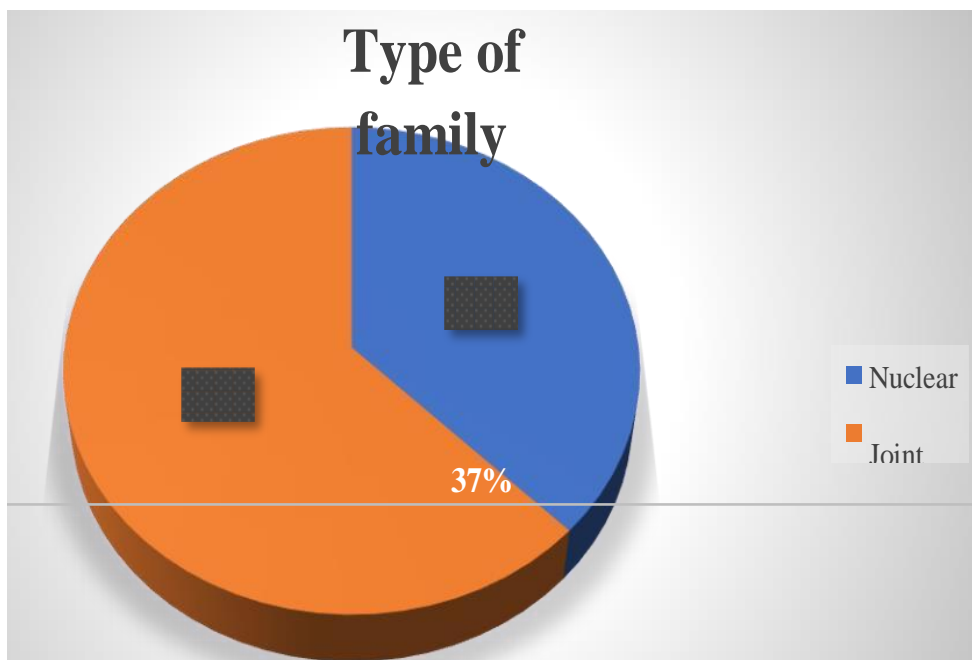


FIGURE 3. Percentage distribution of students with respect to type of family

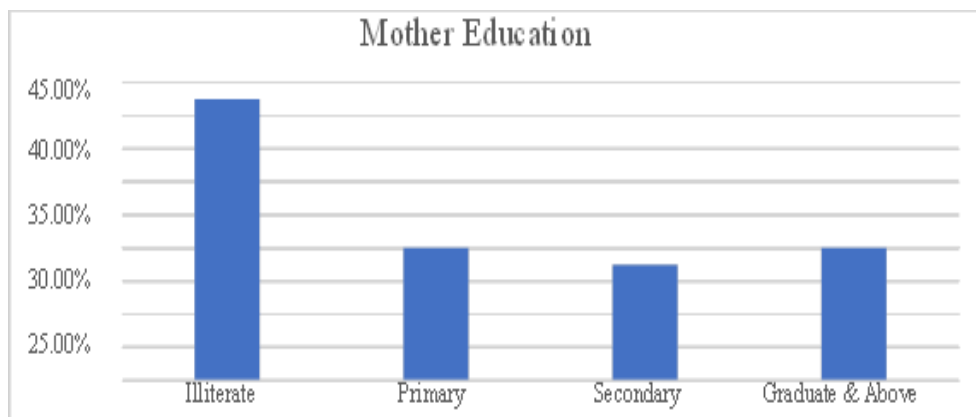


FIGURE 5. Percentage distribution of students with respect to the educational status of their mother

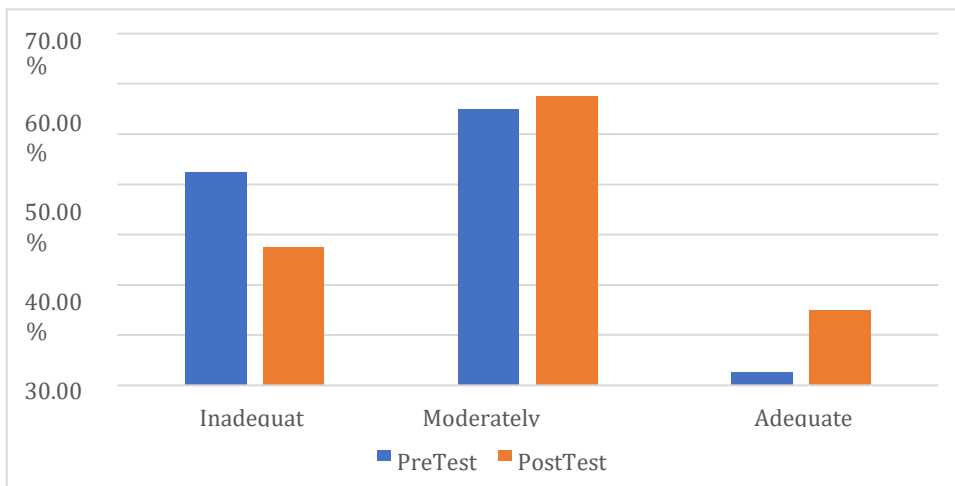
Description of samples according to their pretest and post-test level of knowledge.

Note: Number of students (N) = 40

**TABLE 2.** Distribution of samples according to their pre-test and post-test level of knowledge

Level of Knowledge	Pre test		Post test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Inadequate ( $\leq 40\%$ )	17	42.5	11	27.5
Moderately adequate (40%–65%)	22	55	23	57.5
Adequate ( $\geq 65$ )	1	2.5	6	15

Table depicts that, the pretest and posttest level of knowledge. Majority (22%) of adolescent had moderately adequate knowledge, (17%) had inadequate knowledge. Only one scored (above 65%) marks in pretest but in the posttest majority (15%) had adequate knowledge (above 65%) and (57.5%) of them scored moderately adequate level of knowledge (40-65%). (27.5%) had inadequate knowledge (less or equal to 40%) of knowledge. The above findings summarizes that the structured teaching program had significant beneficial effect in the level of knowledge among adolescent boys.

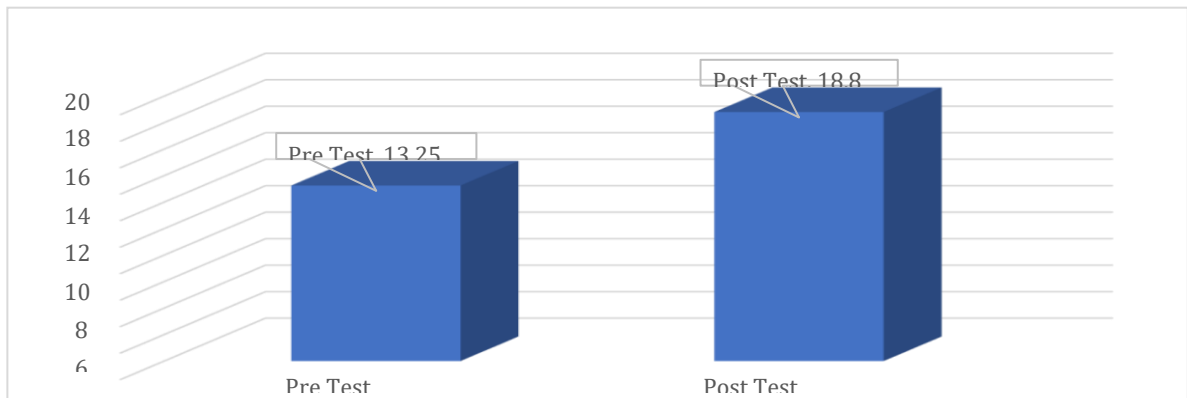


**FIGURE 6.** Distribution of samples according to their pre test and post test level of knowledge

Comparison of per-test and post-test knowledge of adolescents regarding cigarette smoking. Here N=40

**TABLE 3.** Comparison of pre test and post test knowledge level of adolescents

S. No	Knowledge Score	Mean	Mean Difference	Standard Deviation	t-value
1	Pre Test	13.25	5.55	2.94174	0.0000000119
2	Post Test	18.8		4.02046	



**FIGURE 7.** Comparison of samples according to their pre test and post test level

**TABLE 4.** Table Showing Association of pretest knowledge scores with selected socio- demographic variables

Variables	Opts	Adequate	Moderate	Inadequate	Chi Test	P Value	df	Table Value	Result
Age	18-20 Year	1	22	17	N.A				
	21-22 Year	0	0	0					
Type of Family	Nuclear	1	9	5	2.250	0.325	2	5.991	Not Significant
	Joint	0	13	12					
Gender	Male	1	13	8	1.400	0.497	2	5.991	Not Significant
	Female	0	9	9					
Residence	Rural	0	10	11	2.559	0.278	2	5.991	Not Significant
	Urban	1	12	6					
Father's Education	Illiterate	0	3	1	6.523	0.367	6	12.592	Not Significant
	Primary	1	4	4					
	Secondary	0	7	9					
	Graduate & Above	0	8	3					
Mother's Education	Illiterate	1	10	6	4.503	0.609	6	12.592	Not Significant
	Primary	0	3	5					
	Secondary	0	3	4					
	Graduate & Above	0	6	2					

The above table shows that there was no significant association between pretest knowledge score and selected demographic variables (Age, Type of family, gender, residence, father’s education, mother’s education). Hence Research Hypothesis I. e, H2 which states that, “there will be a significant association between mean pretest knowledge score and the socio demographic variables of the subjects “is rejected.

**TABLE 5.** Table Showing Association of Scores and Demographic Variables

Association of posttest knowledge scores with selected socio-demographic variables.									
Variables	Opts	Adequate	Moderate	Inadequate	Chi Test	P Value	df	Table Value	Result
Age	18-20 Year	10	29	1	N.A				
	21-22 Year	0	0	0					
Type of Family	Nuclear	5	10	0	1.379	0.502	2	5.991	Not Significant
	Joint	5	19	1					
Gender	Male	6	16	0	1.324	0.516	2	5.991	Not Significant
	Female	4	13	1					
Residence	Rural	2	18	1	6.205	0.045	2	5.991	Significant
	Urban	8	11	0					
Father's	Illiterate	1	3	0	3.025	0.806	6	12.592	Not Significant
	Primary	1	8	0					
	Secondary	5	10	1					

Education	Graduate & Above	3	8	0					
Mother's Education	Illiterate	5	12	0	7.342	0.290	6	12.592	Not Significant
	Primary	2	5	1					
	Secondary	0	7	0					
	Graduate & Above	3	5	0					

Table shows that the association between the level of score and socio demographic variable. Based on the objectives used to Chi-square test used to associate the level of knowledge and selected demographic variables. The Chi-square value shows that there is significance association between the score level and demographic variables (Residence). The calculated chi-square values were more than the table value at the 0.05 level of significance. There is no significance association between the level of scores and other demographic variables (Age, Type of family, Gender, Father's education, Mother's education). The calculated chi-square values were less than the table value at the 0.05 level of significance.

### 3. Discussion

Majority of the sample subjects were in the age group of 18- 20. Based on the type of family 25(62.5%) were belonging to joint family ,among them 21(52.5%) were residing in rural areas with male dominance 22(55%),With respond to the father's education majority were literate ,16(40%) secondary education,9(22.5%)primary education,11(27.5%)graduate and illiterate 4(10%).With regarding to mother's educational status 17(42.5%) illiterate ,8(20%)primary education ,7(17.5%)secondary education and graduate and above 8(20%). In pretest level of knowledge ,17(42.5%) was having poor level of knowledge ,22(55%) was having average level of knowledge, 1(2.5%) were having good level of knowledge. In posttest level of knowledge 11(27.5%) have poor level of knowledge, 23(57.5%) has average knowledge and 6(15%) have good level of knowledge. These results are more or less comparable with the study conducted in senior secondary school Dehradun Uttrakhund (2018) by Ms.Amendeep Kaur to assess the effectiveness of STP knowledge regarding smoking hazards .Structured questionnaire was used to collect data among 100 adolescents selected through simple random sampling .The results showed that on pretest 60% adolescents had poor knowledge,34% had average,6% hadgood knowledge while on post-test 72% had well,27% had very good knowledge regarding smoking hazards. Similarly A pre-experimental study was conducted in Selected High School of Jammu in 2019 by Mir Uzma Ashraf to assess the effectiveness of STP on knowledge regarding damages of smoking among adolescents in selected schools. Stratified proportionate simple random sampling was used to select 60 respondents and data was collected by self-structured questionnaire .The result showed that mean pretest knowledge score regarding Ill effects of smoking was 18.16 while on posttest it was 24.44. This shows the effectiveness of STP in improving the awareness among adolescents. These findings are also consistent with the study conducted by Saima Manzoor at Radiant public school and kashani memorial school Srinagar in 2018 to assess the effectiveness of planned teaching program on knowledge regarding hazardous of smoking among adolescents in selected schools .Sample size of 80 participants were selected by stratified proportionate simple random technique. Structured questionnaire was used for data collection the result showed that overall mean pretest score was 8.42 while mean post test score was 28.61.It indicates effectiveness of planned teaching program

**Implications of the study:** Nurse can use the instructional strategy as an effective tool for imparting the knowledge among adolescents. This study has several implications in Nursing practice, nursing education, Nursing administration and Nursing Research.

### 4. Conclusion

The Study results revealed that the instructional strategy has remarkable effect on knowledge regarding health hazards of smoking among adolescent boys and girls.

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**Conflict of interest:** The authors declare no conflict of interest in this study.

**Author's contributions:** All authors author were in the conception and design, acquisition of data, analysis and interpretation of data, drafting the article, review of article and find approval.

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