

Impact of Health Education on the Knowledge, Attitude and practice Regarding Smoking Hazards among School going Adolescent Boys in Urban Area of Karnataka, India

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Abstract:

Introduction: Poor personal hygiene, in combination with insanitary conditions and contaminated water, creates a serious public health threat to school children. Children are not conscious of personal hygiene at school level. For better knowledge health education is needed.

Objective: To assess the change in knowledge attitude and practice regarding smoking hazards among school going adolescent boys after educational interventions.

Material and methods: 4 schools Government and Private High School were taken by Universal Sampling. All of students of grade 8th, 9th and 10th were included. Baseline and end line survey was done in February and September 2013. Health education sessions were conducted once a week for six weeks.

Paired t test and proportions were calculated. Ethical clearance and informed consent was obtained. **Results:** Pre- intervention the mean knowledge score of smoking hazards was 7.45 ± 2.01 which was increased to 15.46 ± 0.71 after health education intervention. The mean attitude score of smoking hazards was 8.67 ± 3.31 which increased to 14.47 ± 1.27 after health education intervention. After the health education intervention there was statistically significant increase in awareness of health problems associated with cigarette smoking.

Conclusion: The study demonstrated that health education is effective in providing knowledge, changing attitude to cigarette smoking and it is recommended that continuous health education programmes on smoking and its hazards should be organized by institutions.

Keywords: Smoking, Smoking hazards, Health Education, High school boys.

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I. Introduction

Tobacco smoking is a growing public health problem in the developing world. The health hazards of smoking are well documented, and prevention of smoking has been described as the single greatest opportunity for preventing non-communicable disease in the world today¹. The tobacco epidemic is one of the major public health threats the world has ever faced, killing nearly 6 million people in a year. More than 5 million of those deaths are the result of direct tobacco use while more than 6,00,000 are the result of non-smokers being exposed to passive smoking². Globally everyday about 80,000- 1,00,000 youth initiate smoking³. It is estimated that 250 million children and adolescents who are alive today, would die prematurely because of tobacco, most of them are in developing countries⁴. Approximately one person dies every six seconds due to tobacco use, accounting for one in 10 adult deaths. Up to half of current users will eventually die of a tobacco-related disease. Nearly 80% of the more than one billion smokers worldwide live in low- and middle-income countries, where the burden of tobacco-related illness and death is heaviest. Tobacco users who die prematurely deprive their families of income, raise the cost of health care and hinder economic development².

Health education has been found to increase the knowledge of the participants including school children about health effects of cigarette smoking, attitudes towards the use of tobacco and the consumption of tobacco products in Italy, Baltic republic and in Hong Kong respectively.¹ This study aimed at evaluating the effect of health education intervention on cigarette smoking as well as on the knowledge of health hazards resulting from it among the study population.

II. Material And Methods

This was a pre and post test study design, conducted at three High Schools, under Rukmini Nagar Urban Health Centre (UHC), Belgaum. All high schools (Government & Private) were taken by universal sampling. All 227 students studying at 8th, 9th and 10th standard were included under this study. Pre-test was done in February 2013 and post test was done in September 2013. Health education was given once a week from June to July 2013 for five groups in which four groups had 50 students and remaining one group had 27 students. 45 min each group and it included variables of knowledge, attitude and smoking habit. Pilot study was conducted among 10 percent of students and there was no major correction in the questionnaire. So, these students were included in the main study. A pilot tested questionnaire was used to collect the data. Student willing to participate were included and students who did not attended health education session were excluded from the study. Ethical clearance was obtained from the Institutional Ethics Committee of the JNMC, KLE University.

All individuals who participated in this study received verbal and written explanation of the procedures involved and the benefits expected from the study. Written consent was obtained from the school head master and respective class teachers before the initiation of the study. Assent was taken from each of the participant. Paired t test were used to see the association between pre and post test variables. These data were entered and analyzed into SPSS software (SPSS 20.0 Version). Mean, proportions and percentages were also calculated. Correct answer to the question was given "1" mark and for incorrect answer "0"

III. Results

The present study comprised of total 227 male students. With regard to age distribution, Majority (51.5%) of the study participants were in the age group of 15 years, followed by 32.2% were in the age group of 14 years and 16.3% were in the age group of 13 years.

Table No1: Distribution of participants according to socio-economic status.

Socio-economic status	No.	Percent
Class I	02	0.9
Class II	51	22.5
Class III	90	39.6
Class IV	74	32.6
Class V	10	4.4
Total	227	100

In our study, majority (60.4%) of children were Muslim, 89% children's fathers and 76.2% children's mothers were literate. 58.1% of father's were government and private employee, while 80.6% of mothers were housewives. Nearly 73% of adolescent boys belonged to Socio-economic status classes III and IV.

I: Mean knowledge and practice score before and after health education intervention.

Score	Pre-test (Mean±SD)	Post-test (Mean±SD)	Mean difference (Mean±SD)	Paired t	P value
Knowledge	7.45±2.01	15.46±0.71	8.01±2.17	55.46	<0.00*
Attitude	8.67±3.31	14.47±1.27	5.79±3.50	24.94	<0.00*
*significant at p<0.05					

Table :- showed that the mean knowledge score of smoking hazards was 7.45±2.01 which increased to 15.46±0.71 after health education intervention, which was statistically significant at paired t 55.46, df 226 and p<0.00. The mean attitude score of smoking hazards was 8.67±3.31 which increased to 14.47±1.27 after health education intervention. The increase in correct attitude was statistically significant at paired t 24.94, df 226, and p<0.00. Out 227 students (6.6%) were occasional smokers and remaining are non smokers. Regarding the types of smoking 66.7% smoked cigarette and 33.3% smoked bidi. Our study also showed that majority (66.6%) of smokers smoked outside and (33.3%) smokers smoked at home.

IV. Discussion

In our study, 227 school going adolescent boys were within age group of 13-15 years. The health education on consequences of tobacco smoking and the need to quit was appropriate in this age group because the age group experiment with many things including smoking. Similar study was conducted among this age group in West Bengal⁴ in 2012, At the pre-intervention stage of the survey, respondents had good knowledge that tobacco smoking is associated with health problems. This finding is consistent with study from Pakistan's were

the respondents were aware of health problems of cigarette smoking.⁵ This showed that respondents in this study are informed and had background information that smoking could be associated with health problems. Post-intervention, the knowledge of the study group about health problems associated with smoking increased as more people in the study group now knew of some of the health problems associated with cigarette smoking. Similar increase in knowledge following intervention has been reported in studies conducted in South Africa Japan and Hong Kong.^{6,7,8,9}

In present study the prevalence of smoking was 6.6%. A study conducted in Bangalore³ (6.8%) and Tamil Nadu¹⁰ (5.3%) showed similar results. Prevalence of smoking was much lower in our study as compared to the studies conducted in Chennai city¹¹, but the studies conducted in West Bengal¹², showed lower prevalence than our study. Among the respondents who currently smoke cigarette, about half of them smoked cigarette daily while the other half smoked occasionally. There is likelihood that daily smokers will be more addicted to cigarette smoking and this might make smoking cessation difficult. Although there was no significant difference in the proportion of the study group who smoked cigarette after the health education intervention there was a reduction from 6.6% to 6.1%. This finding is not surprising because the change in the smoking habit require a lot of effort and time. There is need for continuous smoking cessation education programs to reinforce the intervention given. Also, at the post-intervention stage, more respondents who were smokers did not intend to continue smoking.. Similar observations have been reported in other studies.^{5,6} Health education activities had increased the awareness, understanding and knowledge of the respondents; this had influence positive change of attitudes to stop smoking and half of respondent tried to quit smoking. Among the smokers, half smokers had attempted quitting smoking and some were unsuccessful in their attempt to quit smoking. The addiction caused by nicotine is associated with poor outcome of smoking cessation programme. Multiple approaches will be required in smoking control programme. Our study reported that 66.6% of the smokers smoked outside and 33.3% smokers smoked at home. A similar finding was reported in Jammu and Kashmir¹³ were 32.1% smoked at home and 59.3% smoked outside.

V. Conclusion

The knowledge on smoking and its hazards variables significantly increased after health education intervention. The increase in knowledge was statistically significant. The attitude of smoking hazard and related factors significantly increased after health education intervention. The increase in attitude was statistically significant. It concluded that the change in behaviour of adolescent boys was possible if the health education intervention is properly implemented to the children. Indeed, there is need of proper health education intervention through framework of schools to the school children, for improvement regarding smoking hazards among them, throughout the nation. Curriculum must contain the topic of smoking hazards education for healthy human resources and bright future of the nation.

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