Original Article

Tobacco Abuse among School Going Adolescents in Sonpur VDC of Sunsari District, Nepal

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Abstract:
Background/ Aim: Adolescents are vulnerable targets of tobacco industry with all consequences of usage. Studies reveal that tobacco abuse is rising in this age group in Nepal. Materials and methods: A cross sectional survey was carried out School Going Adolescents in Sonpur VDC of Sunsari District , Nepal. 311 students of VIII–IX standard to study the knowledge and abuse of tobacco and to find out influencing socio-demographic factors. The data was subjected to statistical analysis. Results: Study showed knowledge score was higher in females, students from nuclear families, and those with literate parents. Low prevalence of tobacco intake was obtained among the students, with 9.8% reported having ever used smokeless tobacco and 4.3% ever smoked. Tobacco intake was higher among those with a history of parental tobacco intake. Conclusion: The present study is an attempt to address issue of tobacco abuse among the teenagers as they are the future of tomorrow. There is need to be continued information education and communication (IEC) activities should be conducted by the school authorities, with involvement of nongovernment organizations (NGOs) and parents for primary prevention.
Key words: Khaini, Beedi, Tobacco, Cigarette

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INTRODUCTION

Adolescents are vulnerable targets for the tobacco industry, being easily influenced by television, cinema, advertisements, and by their peers. Smoking causes cough, shortness of breath, respiratory illnesses, reduced physical fitness, poor lung function, lung cancer, cardio vascular mortalities, and morbidities. Smokeless tobacco can cause cancers of mouth, pharynx, esophagus, recedinggums, leukoplakia, etc[1].

A study conducted by the Centre for Disease Control (CDC) among middle school students in 2004, found that 12% reported using tobacco at least once in past 30 days and boys (about 13%) were more likely than girls (about 11%) to use them. Among high school students, 54% reported ever having smoked tobacco, and overall 23% smoked cigarettes[2]. World Health Organization (WHO) and CDC in the United States, launched "Global Youth Tobacco Survey (GYTS)." Among 50,207 school children,

aged 13–15 years, in those countries who responded to a GYTS questionnaire, 12–70% had smoked at some time, 2–34% were current smokers, 11–39% started before 11 years, and 40–87% wanted to quit[3]. GYTS results in India revealed that 30.4% boys and 16.8% girls never used tobacco; 22% boys and 10.3% girls were current users of tobacco; 18.5% boys and 8.4% girls were current users of smokeless tobacco with 10.5% boys and 4.4% girls being current smokers.[4] The present study was conducted with the objectives of assessment of knowledge of harmful effects of tobacco and its abuse among school-going in Sonpur VDC of Sunsari District , Nepal and to study the socio-demographic factors influencing the knowledge score and abuse of tobacco in the study population.

MATERIALS AND METHODS

A descriptive cross sectional school-based epidemiological study was conducted in Sonapur VDC. Among the 05 coeducational Government high schools situated in Sonpur VDC of Sunsari District , Nepal, 05 coeducational private high schools situated in Sonpur VDC of Sunsari District , Nepal, were selected randomly and all the students in class VIII–IX standard of those schools were included as study population after assuring anonymity and taking informed consent of school authorities and guardian committees.

A predesigned and pretested semi structured questionnaire based upon CDC and Global School Health Survey (GSHS) questionnaire (applicable for students of class VIII–X) was prepared in Nepali, for self administration to the school students. Pretesting was done on students in the same class of another school at biratnagar Nepal. To assess knowledge, questions were adapted from GSHS questionnaire and scores were assigned for correct responses giving equal weightage. The data were collected from the schools on two separate days, and analyzed by Epi info 3.3.2 software for simple proportions. At the end of data collection health talk on harmful effects of tobacco and benefits of quitting were delivered to participating students of both the schools.

Statistical analysis: Descriptive statistical analysis has been carried out in the present study. Results on continuous measurements are presented on Mean ±SD (Min-Max) and results on categorical measurements are presented in Number (%).The Statistical software namely SPSS 13.0 and Microsoft word and Excel have been used to generate graphs and tables.

RESULTS

The study population comprised of students aged 12–15 year with a slightly higher proportion of females (55%). Nearly 66% of them belonged to nuclear families and in more than 80% of the students, parents were literate. Nearly 80% of the students said there was no discussion about the hazards of tobacco in school during the past year, although 62% were informed about the hazards of tobacco at home. Nearly 89% students had seen antitobacco advertisements in media last month, while 76% had watched their favorite heroes smoking on television or cinemas. Nearly 26% of the students thought that smoking causes no health problems. Nearly 43% thought that those who smoke are not mentally strong. Nearly 70% would refuse their best friend if offered tobacco. Nearly 7% opined that quitting tobacco is possible. Knowledge regarding harmful effects of tobacco was assessed. The overall correct knowledge level varied from 49% to 80% among males; 47% to 75% among females; and 51% to 77% in overall study population.

That '*tobacco is injurious to health and causes addiction*'was known to 79.7% males and 74.5% females. Side effect of nicotine causing stroke was known to 48.8% boys and 62.1% girls. Effect of tobacco on oral hygiene was correctly responded by 59.3%

males and 65.4% females; ill effects of passive smoking by 55.3% boys and 47.1% girls. Tar of the cigarette causing lung cancer was nearly equally known to boys and girls (69.1% vs. 69.3%). Nearly 75.6% boys and 66.7% girls correctly pointed out fetal risk from maternal tobacco consumption. Knowledge score was higher in female students, adolescents from nuclear families and whose parents were literate [Table 1].Among the ever users of smokeless tobacco, 93% started by 11 years of age. Among these 56% were current users of smokeless tobacco. Use of smokeless tobacco including its current use was similar in both sexes.

Only 10 male students have ever smoked, which was started mostly at the age of 10–11 years, and among them only 50% are current smokers. The first tobacco (*n* = 27) was consumed at friend's house (59.3%) followed by neighborhood (40.7%) and friends supplied most of them (44.4%) followed by roadside sellers (29.6%). History of parental tobacco intake accounts for 18.5% of the study population. History of ever smoking and currently smoking; history of ever use of smokeless tobacco and current usage were all found to be high with history of parental tobacco intake [Table 2].

Table 1: Distribution of study population by knowledge score and socio-demographic factors

Socio Demographic factors	Poor (0-2)	Average (3-4)	Good (5-6)	Total
Sex	15(12.2%)	68(55.3%)	40(32.5%)	123(100%)
Male	38(24.8%)	37(24.2%)	78(50.9%)	153(100%)
female				
Family	21(11.5%)	60(32.8%)	102(55.7%)	183(100%)
Nuclear	32(34.4%)	45(48.4%)	16(17.2%)	93(100%)
joint				
Mother's Literacy	15(6.7%)	91(40.8%)	117(52.5%)	223(100%)
Literate	38(71.7%)	14(26.4%)	1(1.9%)	53(100%)
Illiterate				
Mother's Literacy	22(9.9%)	85(38.3%)	115(51.8%)	222(100%)
Literate	31(57.4%)	20(37.0%)	3(5.6%)	54(100)
Illiterate				

Table 2: Distribution of study population by their tobacco smoking practice and their parental tobacco intake

Ever smoked:	:Yes	09(90%)	01(10%)	10(100%)
	: No	42(15.8%)	224(84.2%)	266(100%)
Smoked in past 30 days:	: Yes	5(100%)	0	5(100%)
	: No	46(17%)	225(83%)	271(100%)
Ever used smokeless tobacco	:Yes	24(88.8%)	3(11.2%)	27(100%)
	: No	27(9.8%)	222(80.4%)	249(100%)
Used smokeless tobacco	:Yes	13(86.7%)	2(13.3%)	15(100%)
in past 30 days	:No	38(14.6%)	223(85.4%)	261(100%)

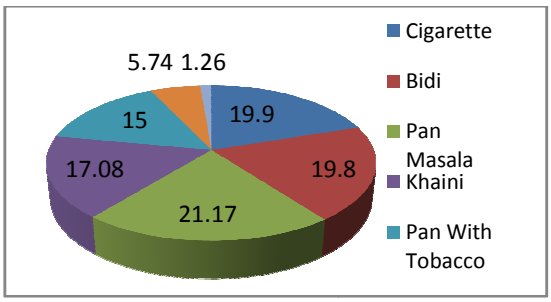

Figure 1: Knowledge about Tobacco and Others Narcotic Product

DISCUSSION

Worldwide study on 13–15 year school students suggests 17.3% students were currently using tobacco. Any tobacco use was highest in the American and European regions (22.2% and 19.8%, respectively) and lowest in the South-East Asian and Western Pacific regions (12.9% and 11.4%, respectively). Boys were more likely than girls to currently use any tobacco in Eastern Mediterranean, South-East Asian, and Western Pacific regions.[5]

In a study among school students in West Bengal using GYTS questionnaire, ever tobacco use was reported by 23% students. Over 18% students first tried any tobacco product at less than 10 years age. Nearly 9.8% currently smoked and 9.5% currently used smokeless tobacco products. Boys were significantly more likely to report for current smoking and smokeless tobacco use.6 The results in the present study regarding knowledge were contrary to the findings of a similar study on school students of 10-12 years age in Patna, Bihar, where majority students had adequate knowledge. However, a study on school-going and nonstudents, in rural southern Tamil Nadu, rural Gujarat, and slum semi urban areas in Bangalore, the harmful effects of smoking was better known to girls,8 similar to our study. A study in Jaipur with students in classes 9-12, showed that 99.2% boys and 99.5% girls were aware that tobacco use is harmful.9 In a study among lower income group school children in Delhi majority (80%) knew that, tobacco consumption is injurious to health.10 That passive smoking was also injurious to health, was known by 77.1% boys and 75.8% girls, in the Jaipur study,9 comparable with our findings. Only 62% students were informed about the hazards of tobacco by their parents similar to the study conducted in Delhi.10 Nearly 26% students thought that smoking causes no health problems in boys or girls, which was similar to 50% school children in Delhi believing that consumption of tobacco made no difference on their body weight.10 The prevalence of using smokeless tobacco was much lower in this study (8.1% boys and 4.6% girls), compared with a study among rural school children in Punjab where 67% students regularly used guthka (smokeless tobacco);[11] but higher than a study in Ballabgarh, Haryana where smokeless tobacco use was nonexistent.[12] Age of initiation of smoking was similar to Haryana study where majority of smokers started at 10–15 years of age.[12] Tobacco intake in any form was high among students who gave history of parental tobacco intake similar to the findings in a study conducted in Bombay.[13] Most students saw some sort of antitobacco advertisements in the media during the last month in our study compared with half in a study conducted in schools of Jaipur.[9]

There is chance of recall bias and conscious falsification from the participants. Some answers might be correctly replied by chance. Utmost care was taken to prevent any side talk. Due to purposive sampling and smaller sample size generalization of the study results would need a larger study to be conducted. Class X students were unavailable due to examinations. Despite some weaknesses the study was able to find important loopholes in our present

information education and communication (IEC) programs on tobacco abuse and was able to generate enthusiasm and curiosity amongst the pupils. Knowledge score was significantly related to sex, type of family, parental education. Low prevalence of tobacco intake was observed in this study, but it was more among students with history of parental tobacco intake. Though the importance of IEC in addressing the problem of tobacco abuse is well-known but we found nearly no discussion on this matter was done in schools last year. Continued IEC activities emphasizing primary prevention and implementation of the National Tobacco Control Program are important to address this problem. Involvement of teachers, parents and nongovernment organizations (NGOs) are important steps in addressing these problems.

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