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Tobacco Use in School Going Adolescents of District Srinagar of Kashmir

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Abstract: ***Over the past four decades, tobacco use has caused an estimated 12 million deaths in the world, including 4.1 million deaths from cancer, 5.5 million deaths from cardiovascular diseases, 2.1 million deaths from respiratory diseases and 94,000 infant deaths related to mothers smoking during pregnancy. According to the WHO, tobacco is the single greatest cause of preventable death globally. Adolescent tobacco use is a complex behavior factors like, social bonding, social learning, lacking refusal skills, risk-taking attitudes and intentions have been highlighted as reasons for the onset of tobacco use in studies in developed countries. Aims & Objectives: This study was taken to find the prevalence of tobacco use in school going adolescents of district Srinagar of Kashmir valley and to provide awareness about tobacco hazards to the adolescents in schools. Methodology: A cross sectional study was taken in school going adolescents of district Srinagar. 6 schools were taken using simple random sampling and total sample of 100 was achieved through PPS technique. Results: Of the 39 male students and 61 females 5 (12.8%) of males and 5 (8.2%) of females had ever tried or smoked tobacco and majority 34 (87.2%) of males and 56 (91.8%) of females had never tried it. Among respondents who ever-smoked had 8 (80%) of their closest friends also smokers as compared to non-smokers who had only 18 (20%) of their friends smokers while as 2 (20%) and 72 (80%) of their friends were non-smokers respectively. This difference was statistically highly significant (<0.01).***

Keywords: Tobacco, Adolescents, Schools, Prevalence

1. Introduction

The Global Youth Tobacco Survey (GYTS) has, for the first time, documented a serious problem of tobacco use among youth that is global in nature. The problem is of equal concern in developed and developing countries. Further, of the 186 million estimated to be aged 13–15 years and currently in school, approximately 34.8 million are currently using some form of tobacco and 25.8 million are currently smoking cigarettes. In addition, almost one in four students who ever smoked cigarettes smoked their first cigarette before the age of 10.[1]

According to WHO (2009), consumption of tobacco has been growing at the rate of 2% to 5% per annum. It is estimated that number of deaths due to tobacco will increase from 3 million per year worldwide to 70 million per year by 2020.[2] Prevalence studies of tobacco use in India have shown wide variations between urban and rural areas, regions, age, gender, education, and other socio-demographic variables across the country. Information on the type of smoking forms, amount smoked, quit rates and relationship with different demographic variables is sparse.[3]

Tobacco use among adolescents is influenced by multiple etiological factors, including individual, socio-cultural and environmental factors. Adolescent tobacco use is a complex behavior; factors like, social bonding, social learning, lacking refusal skills, risk-taking attitudes and intentions have been highlighted as reasons for the onset of tobacco use in studies in developed countries. One study in the United States, found that the most powerful predictors of transition to smoking were alcohol, marijuana, and other drugs, involvement with violence, learning problems, a history of sexual intercourse, frequent hanging out with friends and having friends who smoke.[4] Cigarette smoking, in the developed world, has been the major habit among children for both boys and girls. They usually take to the habit while in school before the age of 18 years. The progressive increase in the consumption of tobacco amongst adolescents is emerging as a complex and multidimensional problem. It continues to occupy a premier position as public health concern in almost all countries. In India too, tobacco consumption in multiple forms presents an emerging, significant and growing threat to the health of the adolescents.

2. Methodology

The cross sectional study was conducted in government and private schools of Srinagar district in Kashmir valley using simple random sampling technique. The study included adolescents in the age group of 12-19 years in November 2015. 100 students were selected for study from 6 government and 3 private schools using probability proportionate to size. After taking consent students were asked to fill a modified version of WHO-GYTS questionnaire. The questionnaire included demographic characteristics, knowledge, attitude & practice of tobacco smoking and other factors associated with tobacco smoking.

3. Results

Fig. 1 shows general characteristics of the study population in a multiple bar diagram. Out of total 100 participants 61 were females and only 39 were females. Majority i.e. 66 respondents were falling in the age group of 15-19 years and only 34 were from age group 12-14 years. Only 34 of the participants were from joint family while as 66 were from nuclear family. 53 subjects were studying in private schools and 47 in government run schools. 20 of the subjects were receiving education from middle school, 35 from high

school and 45 were receiving higher education. **(Numbers are equal to percents as well)**

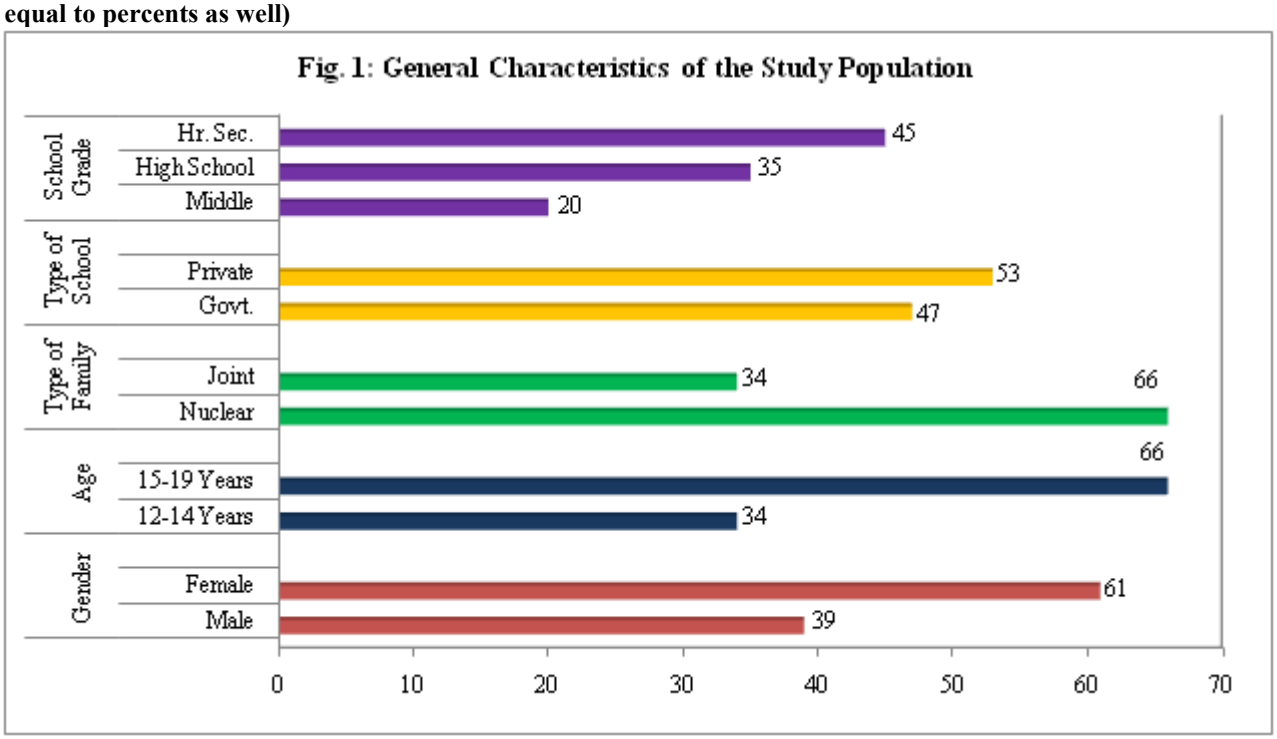

Table 1: Gender wise Knowledge, Attitude and Practice of Tobacco

	Gender		p-value
	Male n (%)	Female n (%)	
Ever tried/Ever-smoked tobacco			
Yes	5 (12.8%)	5 (8.2%)	0.506
No	34 (87.2%)	56 (91.8%)	
Total	39 (100.0%)	61 (100.0%)	
Smoking tobacco is harmful			
Yes	39 (100.0%)	55 (90.2%)	0.153
No	0 (0.0%)	6 (9.8%)	
Total	39 (100.0%)	61 (100.0%)	
Read/were taught tobacco hazards			
Yes	34 (87.2%)	47 (77.0%)	0.297
No	5 (12.8%)	14 (23.0%)	
Total	39 (100.0%)	61 (100.0%)	
Smoke from other's is harmful (SHS/THS)			
Yes	37 (94.9%)	55 (90.2%)	0.477
No	2 (5.2%)	6 (9.8%)	
Total	39 (100.0%)	61 (100.0%)	
Might enjoy/willing to smoke a cigarette			
Agree	6 (15.4%)	4 (6.6%)	0.182
Disagree	33 (84.6%)	57 (93.4%)	
Total	39 (100.0%)	61 (100.0%)	

Gender wise knowledge, attitude and practice of tobacco among the participants in shown in **table 1**. Of the 39 male students and 61 females 5 (12.8%) of males and 5 (8.2%) of females had ever tried or smoked tobacco and majority 34 (87.2%) of males and 56 (91.8%) of females had never tried it. The difference in smoking among males and females was statistically not significant (p>0.05). All (100%) male students 55 (90.2%) of the females had knowledge that smoking tobacco is harmful to health while as 6 (9.8%) of the females had no knowledge about harmful effects on health however the difference was not statistically significant (p>0.05). 34 (87.2%) of the male participants and 47 (77.0%) of the female participants read or were taught harmful effects of tobacco smoking while as 5 (12.8%) of males and 14 (23.0%) females never read nor were taught its harmful effects. The difference between the gender groups was not statistically significant (p>0.05). 37 (94.9%) of male and 55 (90.2%) female students had knowledge that smoke from other's (SHS/THS) is harmful to health while as 2 (5.2%) males and 6 (9.8%) females were unaware of its harmful effects however this difference in knowledge among males and females was not statistically significant (p>0.05). 6 (15.4%) of male and 4 (6.6%) of female students were willing or agreed that they might enjoy smoking in future while as majority of them [33 (84.6%) of males and 57 (93.4%) of males] disagreed that they might enjoy tobacco smoking. The difference in this was again statistically insignificant (p>0.05).

Table 2: Factors Associated with Tobacco Smoking

	Ever-smoker N (%)	Non-smoker N (%)	Total	p-value
Type of Family				
Nuclear	8 (80.0%)	58 (64.4%)	66	0.487
Joint	2 (10.0%)	32 (35.6%)	34	
Total	10 (100.0%)	90 (100.0%)	100	
Performance in school				
Below average	1 (10.0%)	8 (8.9%)	9	0.407
Average	6 (60.0%)	36 (40.0%)	42	
Above average	3 (3.0%)	46 (51.1%)	49	
Total	10 (100.0%)	90 (100.0%)	100	
Smoker/social problem in the family				
Yes	7 (70.0%)	50 (55.5%)	57	0.508
No	3 (30.0%)	40 (44.5%)	43	
Total	10 (100.0%)	90 (100.0%)	100	
Buy tobacco (cigarettes, pan etc.) for parents/siblings.				
Yes	3 (30.0%)	21 (23.3%)	23	0.699
No	7 (70.0%)	69 (76.7%)	73	
Total	10 (100.0%)	90 (100.0%)	100	
Closest friends smoke tobacco				
Some/All of them	8 (80.0%)	18 (20.0%)	26	0.000
None of them	2 (20.0%)	72 (80.0%)	74	
Total	10 (100.0%)	90 (100.0%)	100	
Classmates smoke tobacco				
Some of them	7 (70.0%)	25 (27.8%)	32	0.011
None of them	3 (30.0%)	65 (72.2%)	68	
Total	10 (100.0%)	90 (100.0%)	100	
Parent's education				
One or both Illiterate	3 (30.0%)	35 (38.9%)	36	0.738
Both Literate	7 (70.0%)	55 (61.1%)	64	
Total	10 (100.0%)	90 (100.0%)	100	
Parent/sibling/friends smoke in your presence				
Yes	9 (90.0%)	51 (56.7%)	60	0.047
No	1 (10.0%)	39 (43.3%)	40	
Total	10 (100.0%)	90 (100.0%)	100	
See teachers smoking in school building				
Sometimes	5 (50.0%)	23 (25.6%)	28	0.137
Never	5 (50.0%)	67 (74.4%)	72	
Total	10 (100.0%)	90 (100.0%)	100	

Various factors which may influence tobacco smoking are presented in **table 2**. The participants who ever-smoked 8 (80%) were from nuclear family and 2 (20%) were from joint family. Among non-smokers 58 (64.4%) were from nuclear family and 32 (35.6%) were from joint family. The difference in smoking history with respect to type of family was not statistically significant (p>0.05). The performance rate in school as below average, average and above average among smokers and nonsmokers was 1 (10%), 6 (60%) & 3 (3%) and 8 (8.9%), 36 (40.0%) &46 (51.1%), respectively which was statistically insignificant (p>0.05). 7 (70%) of ever-smokers and 50 (55.5%) of non-smokers had history of smoker or other social problem in the family while as 3 (30%) of ever-smokers and 40 (44.5%) of non-smokers had no social problem in the family. The difference in social problems in family among ever-smokers and non-smokers was not statistically significant (p>0.05). Among ever-smokers and non-smokers 3 (30.0%) and 21 (23.3%) were buying cigarettes for their family members and 7 (70%) and 69 (76.7%), respectively were not involved in buying cigarettes and the difference was statistically not significant (p>0.05). Among respondents who ever-smoked had 8 (80%) of their closest friends also smokers as compared to non-smokers who had only 18 (20%) of their friends smokers while as 2 (20%) and 72 (80%) of their friends were non-smokers respectively. This difference was statistically highly significant (<0.01). Ones who ever-smoked had 7 (70%) of their classmates were also smokers as compared to non-smokers who had only 25 (27.8%) of their classmates as smokers while as 3 (30%) and 65 (72.2%) of their classmates were non-smokers, respectively. This difference was statistically significant (<0.05). 3 (30%) of ever-smokers and 35 (38.9%) of non-smokers had either one or both of the parents illiterate while as 7 (70%) and 55 (61.1%), respectively had both the parents literate. The difference was statistically insignificant (p>0.05). Those who ever-smoked 9 (90%) of them had their parents or siblings or friends smoking in their presence while as those who were non-smokers only 51 (56.7%) had their parents or siblings or friends smoking in their presence and this difference was statistically significant (p<0.05). 5 (50%) of ever-smokers and 23 (25.6%) of non-smokers had seen their teachers smoking in school premises but the difference was not statistically significant (p>0.05).

4. Discussion

Tobacco use is a serious public health challenge globally. It has assumed the dimension of a pandemic resulting in enormous disability, disease and death. In every country there is great variation in the consumption patterns. There has also been a complex interplay of socio-cultural factors which influenced not only the acceptance or rejection of tobacco by sections of society but also determined the patterns of use. There are only a few studies in India on prevalence and initiation of tobacco smoking among children. Our study tried to check the prevalence of tobacco smoking, initiation and various risk factors that are associated with tobacco smoking among school going adolescents. 39 male students and 61 female students participated in the study in the age group 12-19 years. 66 students were from nuclear families and only 34 were from joint family which is typical of an urban district. The prevalence of tobacco smoking was 12.8% in boys and 8.2% in girl students. There are only a few studies in India on prevalence and initiation of smoking and smokeless tobacco use among children.[1,2] Like other developing countries, the most susceptible age (15-24 year) for initiating tobacco use in India is during adolescence and early adulthood (NSS 50th round (1993-1994). In a nationally representative study covering males in the age group 12-60 year across all the 25 states of India in 2002, tobacco use was reported by 55.8% of individuals in the age group of 12-18 year.[5] The prevalence of tobacco use among the school and college going adolescents of Haryana was studied by Kapoor SK et al. 1130 male and 256 female students were given a self-administered questionnaire regarding tobacco use. 160 (14.2%) male and 6 (2.3%) female students reported to have smoked at any time in the past.[6] in another study the prevalence of ever-use of tobacco varied between 2.9 to 8.5% in boys and 1.5 to 9.8% in girls.[7]

The good thing was that 100% boys and 90.2% girls knew the harmful effects of tobacco smoke and majority (>90%) of them were aware that SHS and THS is also harmful. A good percentage of boys (12.8%) and girls (23%) were never taught the hazards of tobacco and many of them (15.4%

boys and 6.6% girls) were willing to enjoy cigarette smoking in future. On analyzing the various factors it was seen that there was little if any or no impact on initiation of smoking of type of family, performance in school, any social problem in family, buying cigarettes for the family members, parent's education and teacher's smoking of cigarettes ($p>0.05$). The study by Hanspal R et al showed a lack of knowledge in the students regarding the consequences of tobacco use. Friend's and teacher's smoking behaviour is significantly associated with student's tobacco consumption.[8] But there was statistically significant impact due to friend's smoking, classmate's smoking and their smoking in one's presence on smoking habit of an adolescent ($p<0.05$). Of smokers; 80% of their friends and 70% of their classmates were also smoking tobacco and 90% of them were smoking in their presence. This showed that major determinants for starting smoking tobacco are exposure to parental/sibling and peer smoking. The most common reasons cited for children to start using tobacco are peer pressure, parental tobacco habits and pocket money given to children.[9] Some of the researches[10,11] have also indicated that a decision to take to tobacco is associated with factors such as: peer smoking, peer attitudes and norms, stress, health concerns, risky behaviours, parental smoking, family income, parental attitudes, sibling addiction, attachment to family and friends, depression, and self-esteem.

5. Conclusion

The single best opportunity for preventing non-communicable disease in the world today is to prevent tobacco use in young people and the consumption of tobacco, among school students should be considered as a matter of great concern which requires holistic understanding. Many studies have focused on the prevalence of tobacco consumption among school students in different states of India but no study so far has covered the other related factors, such as, awareness level, role and responsibility of schools and parents.

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