

To Determine Tobacco Usage and Associated Risk Factors among Adolescents- A Survey

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Abstract

Aim: To determine tobacco usage and associated factors among adolescents.

Material & Method: The present study was conducted on 1350 students age ranged 12- 17 years of age. Parameters such as type of school, type of tobacco use, type of family, grade, father occupation, mother occupation, monthly pocket money, history of parental use of tobacco and type of family was recorded.

Results: Age group 12-14 years had 780 and 15-17 years had 570 subjects. Subjects were from private school in 890 and government in 460. Grade was 7th in 110, 8th in 230, 9th in 450 and 10th in 560 subjects. Family of subjects was nuclear in 960 and joint in 390. Father occupation was service in 362, farmer in 290, business in 446 and laborer in 252, mother occupation was housewife in 440 and working in 910, parental tobacco usage habit was present in 830 subjects. The difference was significant (P< 0.05).

Conclusion: Authors found that later age, male gender, nuclear family, monthly income >5000 per month, parental use and private school was predictor and risk factor of tobacco usage among school children.

Key words: Tobacco, nuclear family, occupation, Parental use, school children

Introduction

The tobacco use among the young population is on rise. It has been found that an average of 80 thousand to 1 lakh youth start smoking any time. Most of the youth start smoking before 18 years of age.¹

Chronic tobacco usage can be credited to sudden immature decision to experiment tobacco during the early adolescent period.² The harmful effect of tobacco

is more when it is started at early childhood. Both smoking and smokeless forms are frequently used among adolescent. The most common reason for such high may be attributed to marketing strategies of various tobacco companies and its weak regulation.³ Excessive tobacco production, weak enforcement of tobacco control, easy accessibility to child led to increase use of tobacco among adolescents. Modernization, status symbol and social media are other etiological agents.⁴

Child are more prone to develop addiction and stay proximate till late adult life. Tobacco has the power to kill 250 million of children today a person every 6.5 second globally.⁵ The harmful effect of tobacco such as smokers melanosis, tobacco pouch keratosis, leukoplakia and oral cancer can be seen among tobacco users. There have been evidences linking youth-smoking with depression,

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anxiety, and stress. Global Adult Tobacco Survey for Karnataka stated that the average age for beginning into daily usage of tobacco is 18.7 years.⁶ The present study was conducted to determine tobacco usage and associated factors among adolescents.

Materials & Method

This study was carried out in the department of Oral medicine. It comprised of 1350 student’s age ranged 12- 17 years of age. This study was permitted from institutional ethics committee of Kalinga Institute of Dental Sciences, Orissa. Written consent of all participating subjects was obtained before the study.

Participants’ data such as name, age, gender was recorded in proforma. Other parameters such as type of school, type of tobacco use, type of family, grade, father occupation, mother occupation, monthly pocket money, history of parental use of tobacco and type of family was recorded. Data thus obtained were tabulated and entered in MS excel. Frequency was recorded. Statistical evaluation was carried out using SPSS version 20.0 using Binary logistic regression and Mann-Whitney U-test to detect significant differences for non-parametric data. The P value lesser than 0.05, was considered significant.

Results

Table I shows that multivariate analysis showed that tobacco use was associated male gender (OR: 10.2; 95% CI 8.6- 12.4), late age 15- 17 years (OR: 1.62 95% CI 1.14- 2.16), private school (OR: 1.74 95% CI 0.98- 1.84), nuclear family (OR: 0.72 95% CI 51.2- 101.4), pocket money/ month (OR: 1.42 95% CI 1.06- 2.04) and parental tobacco use (OR: 1.14 95% CI 1.02- 1.28).

Graph I shows that type of tobacco usage was

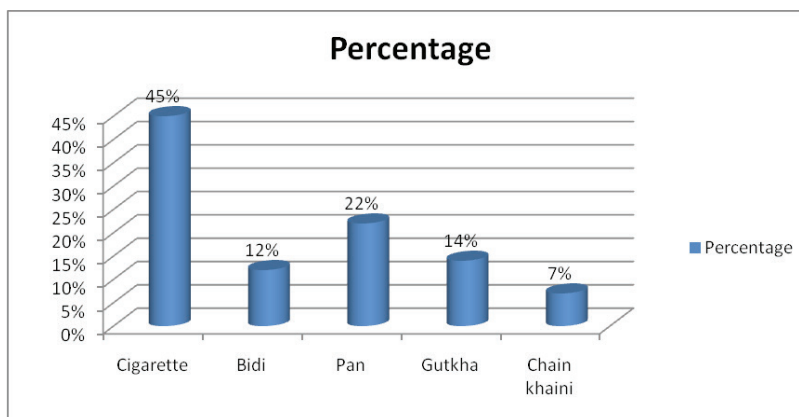
cigarette in 45% followed by pan masala in 22%, gutkha in 14%, bidi in 12% and chaini khaini in 7%. The difference was significant (P< 0.05).

Graph II shows that reason for tobacco use among students found to be habit in 35%, status symbol in 24%, social media usage in 20%, 15% had misconception that it does not cause harm in and 6% found it to be stress reliever. The difference was significant (P< 0.05).

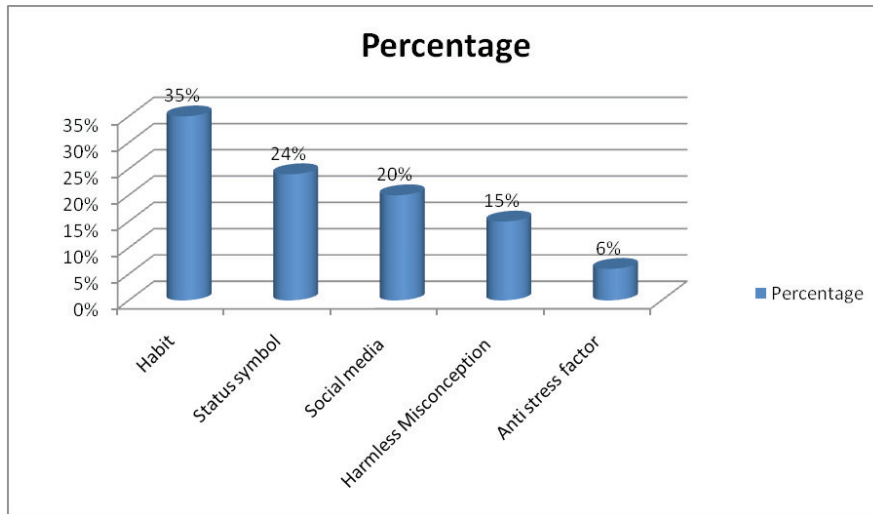
Table I Association of different variables with tobacco use

Parameters	Adjusted OR (95% CI)
Gender	
Male	10.2 (8.6- 12.4)
Female	1
Age group	
12-14	1
15-17	1.62 (1.14- 2.16)
School	
Private	1.74 (0.98- 1.84)
Government	1
Type of family	
Joint	1
Nuclear	0.72 (51.2- 101.4)
Pocket money/ month	
<5000	1
>5000	1.42 (1.06- 2.04)
Parental tobacco Use	
Present	1.14 (1.02- 1.28)
Absent	1

Mann-Whitney U-test, Significant, P< 0.05



Graph I Type of tobacco usage



Graph II Reason for tobacco usage

Discussion

Tobacco usage among adolescent is on rise and it is becoming pandemic. The high rate of tobacco related diseases such as mouth cancer, stomach cancer, esophagus cancer, etc. is a matter of worry. It has been observed that those who start tobacco use early in life like school age are more likely to continue it for longer life.⁷ Tobacco is used in two forms, smokeless and smoking. Under smokeless form, pan masala, chaini khaini, gutkha, betel quid, snuff, mawa are common forms and in smoking tobacco, hooka, hukli, cigarette, bidi, chillum, chutta and dhumti are commonly used forms.⁸ The present study was conducted to determine tobacco usage and associated factors among adolescents.

In present study we enrolled 1350 students of which male were 1040 and female were 310. We found that maximum students were from age group 15-17 years (570) followed by 12-14 years (780). Duko et al⁹ assessed the prevalence of cigarette smoking among 564 school students by using Global Youth Tobacco Survey (GYTS). They observed that the student prevalence of cigarette smoking was established to be 11% of which 9.4% were current smokers. The prevalence of smoking among male was 8.2% and female students was 2.8%. Students having friends who smoke, khat chewing, age >18 years, alcohol consumption and illegal or illicit drug use were found to be significantly associated with cigarette smoking.

We found that maximum number of students (890) were from private school and grade 10th (560 subjects).

Maximum students had habit of tobacco chewing those who were from nuclear family (960). Maximum students' father occupation was service (362), mother occupation was working (910) and parental tobacco usage habit was present in 830 subjects. Dereje et al¹⁰ evaluated the prevalence of cigarette smoking among adolescents and found that 28.6% students were ever smoker, and 17.2% were current smokers. It was found that gender, alcoholism, parental tobacco usage, peer smoking, exposure to movie with actors smoking, not being exposed to anti-smoking media messages, not discussing in the class about ill effect of smoking.

We observed that tobacco use was associated male gender, late age 15- 17 years, private school, nuclear family, pocket money/ month and parental tobacco use. In present study cigarette smoking was present in 45% pan masala in 22%, gutkha in 14%, bidi in 12% and chaini khaini in 7%. George et al¹¹ in their study found that out of the 407 children, 102 had tried cigarette smoking, while 7.9% had tried smokeless tobacco. It was seen in 14.3% of them bought it directly from shopkeepers. Majority of participants thought that smoking can definitely cause harm to health, while others conscious about the harmful effects of passive smoking.

We found that reason for tobacco use was habit in 35%, status symbol in 24%, social media usage in 20%, 15% had misconception that it does not cause harm in and 6% found it to be stress reliever. Pradhan et al¹² found prevalence of ever use of any tobacco product in 19.7% out of 1312 students. Fifty percent used tobacco in

public places and seventy five percent of the consumers purchased tobacco from shops.

Inspite of repeated education programme the number of daily tobacco users is increasing and school age is most common age group where one is more prone to get this habit. The large scale education and ban of tobacco products around schools is required. There is need to decrease accessibility of cigarette, totally ban smoking in the public places, and prohibit tobacco advertisement and promotions in Medias and movies.

The shortcoming of present study is small sample size. We evaluated tobacco usage by self administered response, chances of bias in responses exist.

Conclusion

Authors found that later age, male gender, nuclear family, monthly income >5000 per month, parental use and private school was predictor and risk factor of tobacco usage among school children.

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Conflict of Interest-NIL

Ethical Clearance- Taken from: Kalinga Institute of Dental Sciences, Orissa, ethics committee

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