



TOBACCO USE; IMPACT AND ITS CO-RELATION WITH DENTAL CARIES

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ABSTRACT... Background: Smoking and smokeless tobacco is thought to have detrimental impact on oral as well as general health. Relationship of caries to tobacco is still unclear. Studies conducted worldwide reported tobacco as a risk factor for root caries. Use of tobacco may be a co variable in this complex rather than direct etiological factors in caries occurrence.

Study Design: Descriptive cross sectional study. **Setting:** "Different colleges of Qasimabad (Hyderabad)". **Period:** 1st August to 31st October 2016. **Materials and Methods:** Sample size of 400 boys. Two groups were made 200 students boys in each group. (Group A) comprising of smokers Group B non-smokers or never users. **Results:** Students in Group (A) 16 years of age (11%) were having caries while (1.75%) were free from caries. Students of 19 years of age (10%) were having caries while (2.5%) were caries free. Over all caries present in this group was (41%) while caries free were (8.79%). According to Group B, Students who were 16 years of age who never smoke caries present was in (3%), caries free were (9.25%). Students who were 17 years of age having caries (2.25%), caries free were (10.25%). Students with the age 19 years having caries present in (3.25%) caries free were (9%). Over all (10.5%) were having caries. While (39.5%) were free from caries. **Conclusion:** It is concluded that caries rate was high in smokers.

Key words: Dental Caries, Root caries, Tobacco.

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INTRODUCTION

Smoking and smokeless tobacco is thought to have detrimental impact on oral as well as general health.^{1,2} Relationship of caries to tobacco is still unclear. Studies conducted worldwide reported tobacco as a risk factor for root caries. It is also reported that tobacco users have increased caries rate especially in young adults.^{3,4,5,6,7} China has the largest production as well as consumption of tobacco in past two decades. Cigarette smoking is not only done by aged, elderly but by youth of the world is also involved in it.⁸ Recent survey was conducted in Sweden by Hugoson A et al. failed to demonstrate the relationship of tobacco with dental caries.⁹ A systemic review by Benedetti G et al. on tobacco use and dental caries concluded that overall quality of evidence was poor.¹⁰

As dental caries is a multifactorial disease associated with lifestyle, diet, socioeconomic status etc. Use of tobacco may be a co variable in this complex rather than direct etiological factors

in caries occurrence.^{11,12} Epidemiological data collected from this area will provide impact of tobacco use on caries risk among teenagers.

METHODOLOGY

This cross sectional study was conducted in different colleges of Hyderabad from 1st August to 31st October 2016. There were 400 subjects (Boys) selected in this study. Two groups were made, 200 students who were smokers we put them in Group A. While those who never smoke were put them in Group B. Pre –examination instruction were given and consent was taken from the subjects. Inclusion criteria for this study was age 16 to 19 years, subjects who were willing to participate were selected. Questionnaire were prepared in English, urdu and sindhi languages that includes both open and closed ended questions comprising of type of tobacco, how frequently they use it, consumption of cigarettes per day, past medical and dental history, dietary habits etc. Dental caries were checked using

DMFT Index. Questionnaires were given to the selected participants they completed it and returned it to the co- investigators. SPSS version 16 was used for data entry and data analysis.

RESULTS

Total 400 students (Boys) were selected. Two groups were made 200 students boys in each group. (Group A) comprising of smokers Group B non-smokers or never users. According to my

study students who were in Group (A) 16 years of age (11%) were having caries while (1.75%) were free from caries. Students who were 17 years of age (10.75%) were having caries while (1.15%) were caries free. Students 18 years of age (10%) were caries free while (2.5%) were caries free. Students with 19 years of age (10%) were having caries while (2.5%) were caries free. Over all caries present in this group was (41%) while caries free were (8.79%). As shown in Table 1 (a).

Cigarette smokers Age of Student			Dental caries		Total N=400
			Caries Present	Caries Free	
Smokers (Group A)	16		44 (11%)	7 (1.75%)	51 (12.75%)
	17		43 (10.75%)	6 (1.15%)	49 (12.25%)
	18		40 (10%)	10 (2.5%)	50 (12.5%)
	19		40 (10%)	10 (2.5%)	50 (12.5%)
never users (Group B)	16		12 (3%)	37 (9.25%)	49 (12.25%)
	17		9 (2.25%)	41 (10.25%)	50 (12.5%)
	18		8 (2%)	44 (11%)	52 (13%)
	19		13 (3.25%)	36 (9%)	49 (12.25%)
Total			42 (10.5%)	158 (39.5%)	200

Table-I (a). Cigarette smoking and its association with dental caries

According to Group B, Students who were 16 years of age who never smoke caries present was in (3%), caries free were (9.25%). Students who were 17 years of age having caries (2.25%), caries free were (10.25%). Students who were 18 years of age having caries (2%) while caries free were (11%), Students with the age 19 years having caries present in (3.25%) caries free were (9%). Over all (10.5%) were having caries. While (39.5%) were free from caries. As shown in Table-I (a). Mean DMFT score is 2.8875, S.D +_3.04434. As shown in Table-I (b).

Decayed Missing Filled Teeth	Mean	Standard Deviation
	2.8875	3.04434

Table-I (b). DMFT Index

DISCUSSION

This cross sectional study was done to assess the impact of tobacco and its co relation with caries. According to study prevalence of dental caries seems to be high in smokers, irrespective of socio economic status, geographic characteristics etc.

Study conducted in Kuwait revealed that one tenth of students initiated smoking rapidly from 16 to 17 years of age and reached 30% by the age of 20 and almost nearly 50% by the age of 24.¹³ In this study initiation of smoking was strongly associated with sibling smoking. Study conducted by me also revealed the higher rates of caries in smokers whose age was 16 and 17 years.

This shows that students who initiate smoking from the age 16 to 17 years they develop habit of smoking in later years of their adolescence life. Students who have family members as smokers also develop habit of smoking by seeing them.

Frequency of Dental Caries in Smokers/Non Smokers

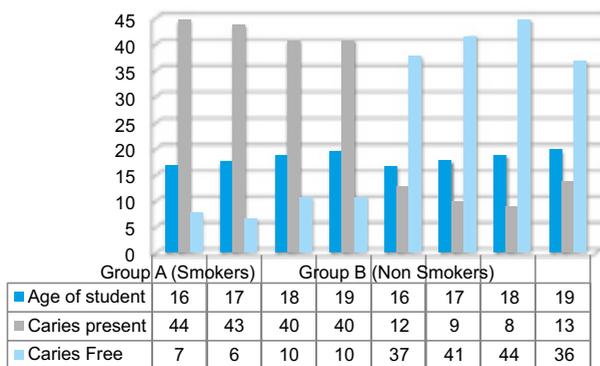


Figure-1. Shows that there is high frequency of dental caries in smokers. (Group A).

According to W.H.O (World Health Organization) smoking is the main risk factor for the sixth among 8th leading cause of death in the world. Tobacco kills 15 years prematurely to its consumers. Study revealed that consumption of tobacco has killed almost five million people in a year and forecast shows a rise of more than 8 million during 2030.¹⁴ The association of smoking with dental caries is a prominent one.

Smoking not only causes dental decay that is dental caries, gum issues and periodontal loss but leads to combination of diseases like halitosis, tooth loss, myocardial infarction, mouth cancer etc.¹⁵

CONCLUSION

It is concluded that caries rate was high in smokers. It could be due to stress in students or having friends, siblings and parents who are smokers. Health education programs on smoking cessation should be arranged in this area, use of tobacco products, sheesha, hookah should be banned properly. Tobacco sellers as well as tobacco buyers should be implanted with high taxes. Campaigns should be started for tobacco cessation in which television media and radio stations can also participate.

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*“Go to bed with dreams.
Wake up with plans.”*

Unknown

AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Dr. Nida Talpur	Introduction and discussion	
2	Dr. Maham Shah	Data analysis & results	
3	Dr. Sana Siddique	Abstract & data collection	