

## **Academic stress and tobacco abuse among the clinical dental students in chennai city.**

**RUNNING TITLE:** Academic stress and tobacco abuse among the clinical dental students.

**TYPE OF STUDY:** Cross sectional questionnaire survey

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### **ABSTRACT**

**Background:** Academic performance of the students is highly affected by internal and external factors. The performance of the students play an important role in producing quality graduates. One of the major risk factors for many health related problems has been caused by using tobacco. Tobacco can be consumed in smoked as well as smokeless form. Therefore the aim of the study is to investigate the academic stress and tobacco abuse among the dental students in Chennai city.

**MATERIALS AND METHODS:** This study was an online questionnaire survey among dental students in Chennai city. This study was conducted in February 2021. There were 95 participants in this survey. The data was analysed statistically using SPSS software version 23. The chi square test between gender was done and represented in a bar graph. ( $P < 0.05$  is statistically significant).

**RESULTS:** A total of 95 dental students participated in this study. In this study there were 51.6% females and 48.4% males. Only 6.3% of students used tobacco and 93.7% of students didn't use tobacco. 21-25 age group students use tobacco more than 15 -20 age group students. Pearson chi square test showed that p value is 0.56 ( $p > 0.05$ ) and hence it is statistically not significant statistically.

**CONCLUSION:** The increased frequency of using tobacco in any form among dental students is of great concern. Tobacco cessation programs frequently conducted in the dental Colleges to bring more awareness among the students about the smoking habits and strict rules and regulations would be done to prohibit tobacco use.

**KEYWORDS:** Academic stress, dental students, tobacco, smoking, smokeless, Innovative analysis.

**Running Title:** Tobacco abuse among dental students.

## **INTRODUCTION:**

Academic performance of the students is highly affected by internal and external factors. Tobacco smoking in our country is one of the serious issues because of the lack of rules and regulations regarding tobacco control. Tobacco use is one of the major risk factors for many health related problems(1). The estimate given by the World Health Organization (WHO) was that over one billion individuals smoke tobacco currently, with approximately 5 million deaths per year being attributed to tobacco. The smoking habit contributes to a global problem. If this same pattern continues, WHO estimates that tobacco attributable death rate will exceed 8 million deaths per year by 2030 (2).

Tobacco can be consumed in smokeable form such as cigarette and pipe smoking (nargile, shisha) which is mostly practised in the region of eastern Mediterranean(3). Smokeable tobacco contains higher concentrations of nicotine, carbon monoxide, and the tar type of heavy metals.(4) The presence of these kinds of substances and other toxic products may cause cancer and serious respiratory disease(5). Tobacco can also be consumed as smokeless form. Smokeless tobacco gives a significant signal to oral cancers. Even though the widespread recognition that tobacco contributes to serious health problems, the use of tobacco is increasing globally (6).

Several studies have investigated tobacco use among dental students (7). The smoking rate of dental professionals is less when compared to other health care professionals (8) The young age people, especially young adults, are often targeted by the tobacco industry for promotion(9). Moreover, many students think that smoking would reduce stress. Our team has extensive knowledge and research experience that has translate into high quality publications (10–18),(19),(20),(21,22),(23),(24),(25–29) Therefore the aim of the study is to know the tobacco abuse and academic stress among the dental students in Chennai city.

## **MATERIALS AND METHODS:**

Study Design: Dental students from a private dental institution in chennai

Sample size: 95 dental students

Sampling and Scheduling:

Owing to the nature of the study design and setting, a convenience sampling method was used. The data was collected over a period of one month. Out of 159 individuals to whom the questionnaire was sent, only 95 responded and only fully filled forms were included in the survey.

Ethical Clearance:

Prior to the start of the study, ethical clearance was obtained from the institution ethical committee of Saveetha university.

Inclusion and Exclusion Criteria:

All those who were willing to participate were included in the study. Incomplete submissions were excluded from the study.

Statistical Analysis: The responses from the google sheet was transferred into excel and was then exported to SPSS software, version 25. Descriptive statistics was done using frequency and percentage. Inferential statistics was done using Chi square test. Interpretation was based on a p value less than 0.05, which was considered statistically significant.

## RESULTS:

A total of 95 dental students participated in this study. In this study there were 51.6% females and 48.4% males. Among this only 6.3% of students used tobacco and 93.7% of students never used tobacco. 21-25 age group students used tobacco more than students in the 15 -20 age group. Pearson chi square test showed that p value is 0.56 (  $p > 0.05$ ) and hence it was not statistically significant ( Figure 1). Males were found to use tobacco more than females. Pearson chi square test showed that p value 0.077(  $p > 0.05$ ) and hence it is statistically not significant (Figure 2). Another question asked to the respondents did they find any difficulty in retaining from smoking. Females were found to have more difficulty in retaining smoking than male. Pearson chi square test showed that p value 0.994 (  $p > 0.05$ ) and hence it is not significant statistically ( Figure 3).Urban students use tobacco more than rural students. Pearson chi square test showed that p value 0.255 (  $p > 0.05$ ) and hence it is not significant statistically ( Figure 4).

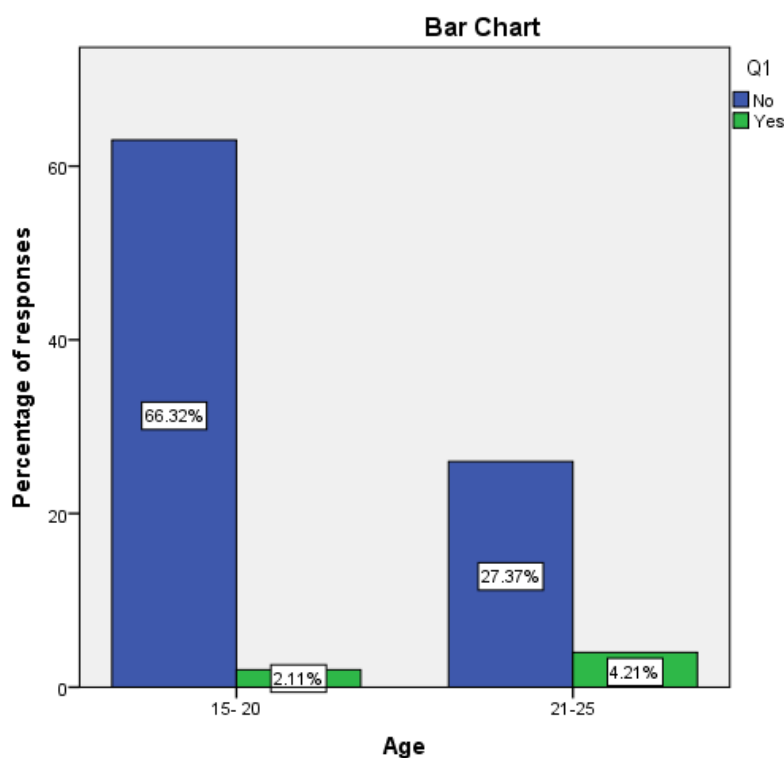


Figure 1: This bar graph represents association between the age and use of tobacco. X axis represents different age group of the dental students and Y axis represents the number of respondents. Blue denotes no and green denotes yes. 21-25 age group students(4.21%)use tobacco more than 15 -20 ( 2.11%) age group students. Pearson chi square test showed that p value is 0.56 (  $p > 0.05$ ) and hence no statistically significant association was found between age and use of tobacco.

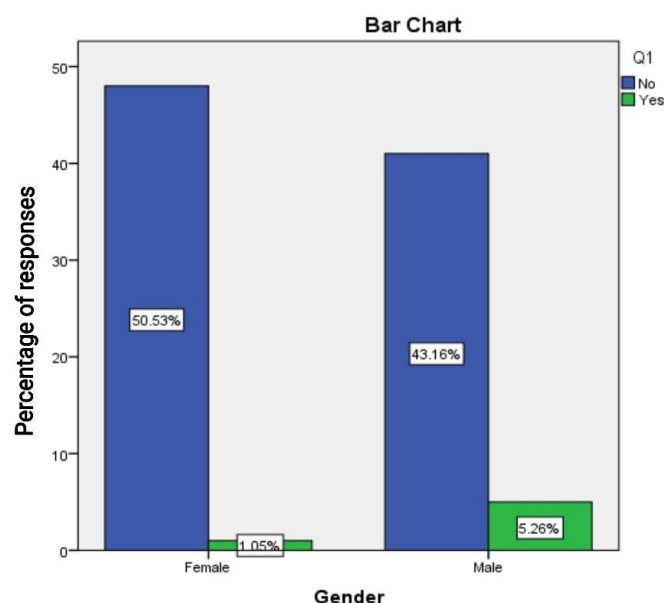


Figure 2: The bar graph depicts the association between the gender and did use tobacco. X axis represents the gender and y axis represents the number of responses. Blue represents no and green represents no. Males(5.26%) used tobacco more than females(1.05%). Pearson chi square test showed that p value 0.077(  $p > 0.05$ ) and hence it is statistically not significant association was found between gender and use of tobacco

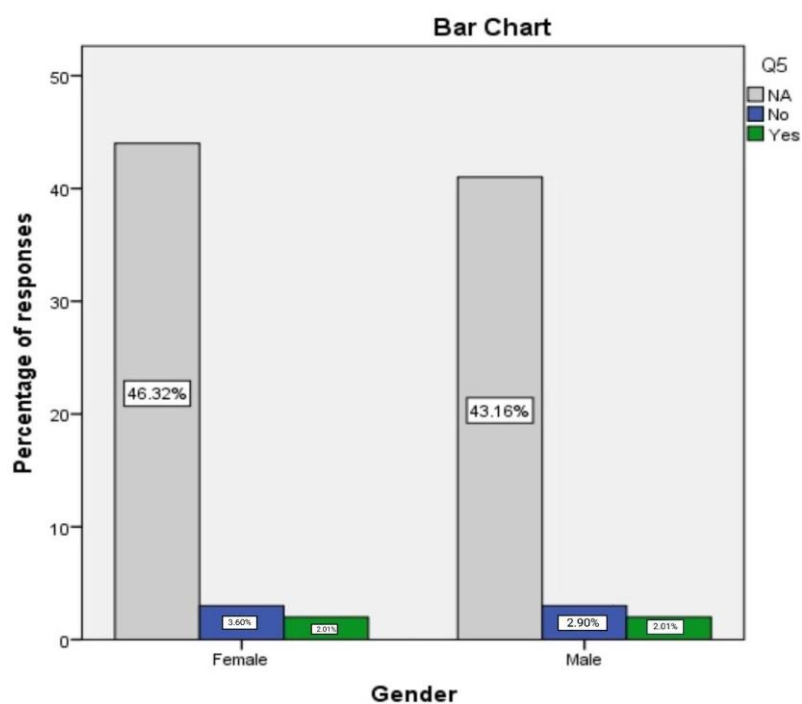


Figure 3 : This bar graph represents association between the gender and did they find any difficulty to retain from smoking. X axis represents gender and Y axis represents number of respondents. Blue denotes not applicable, green denotes no and sandal denotes yes. Both females(2.01%) and males ( 2.01%) were found to have difficulty in retaining smoking . Pearson chi square test showed that p value 0.994 ( $p > 0.05$ ) and hence it is not significant statistically.

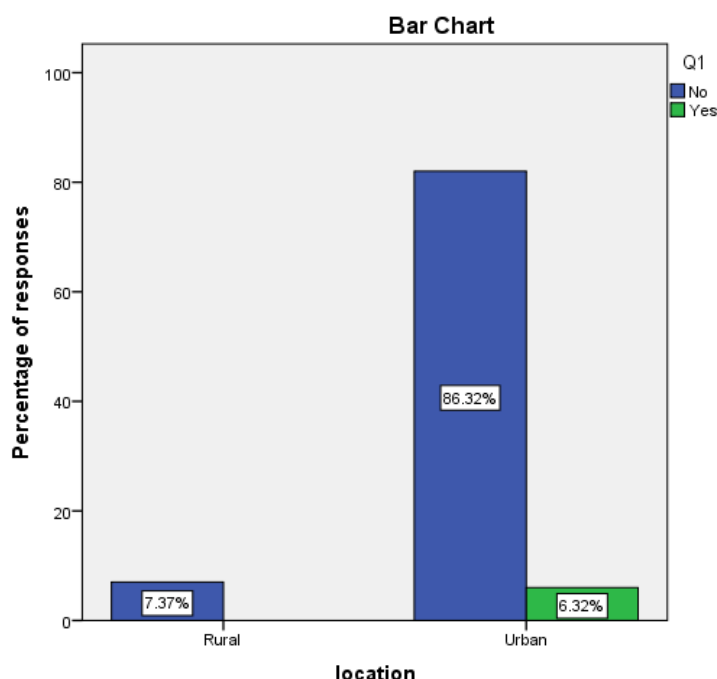


Figure 4: This bar graph represents the association between the location and did they use tobacco. X axis represents the location and Y axis represents the number of respondents. Blue denotes no and green denotes yes . Urban students were found to use tobacco more than rural students. Pearson chi square test showed that p value 0.255 (  $p > 0.05$  ) and hence it is not significant statistically.

## DISCUSSION:

In the present study most of the students responded that they cannot use tobacco. A study conducted in Saudi Arabia demonstrated that approximately 20% citizens and adults in Saudi Arabia were tobacco smokers (30)(31). Smoking behaviour generally begins during the adolescent. Beside this, smoking will affect the performance of the students, by decreasing concentration, coherent and memory functions (32). In this study our concept was to find whether smoking will affect academic performance of the students.

Almost 50% of the current tobacco users recognized that stress was the main reason for starting smoking. Several studies showed that stress related problems in dental students and the nature of dentistry (33). Doctors are considered as the role of their patients (34) and they play an important role in encouraging smokers to stop using tobacco. Several recent research predicted that increased oral cancer in India. This prediction is observed based on the increased prevalence of oral submucous fibrosis, especially in adults caused by smokeless tobacco products manufactured in industries (35).

Teens see smoking as a way to relieve tension in their families, among their friends, and in all types of popular media, according to a common finding across all classes. One of the most striking findings is how often and randomly teenagers mention smoking as a stress-relieving strategy. Smoking as a stress reliever appears to be a social truism that teens pick up from the media, friends, and family, and it is communicated explicitly and indirectly through many channels in their lives. A significant finding related to this is that adolescents feel that stopping smoking is difficult, and that this stress becomes a justification why they must smoke and not quit.(36)

The Global youth tobacco survey conducted in delhi reported that in India one in 10 students had ever used tobacco in any form (37). According to WHO estimation 194 million men and 45 million women use tobacco in India (38). The most common reason for tobacco use was their friends' tobacco habits, which causes them to be more curious towards tobacco.

Furthermore, most of the dental students were not aware of the most hazardous effects of tobacco smoking on general and oral health.

Limitation: The present study will be conducted only in chennai city.

Future scope: The study should be conducted with large no of participants and it also conducted in other districts .

## CONCLUSION:

In the present study only few of the dental students use tobacco. The increased frequency of using tobacco in any form among dental students is of great concern. Tobacco cessation programs frequently conducted in the dental Colleges to bring more awareness among the students about the smoking habits and strict rules and regulations would be done to prohibit tobacco use.

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