



AWARENESS ABOUT EFFECTS OF SMOKING ON PERIODONTAL TISSUES AMONG DENTAL STUDENTS

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ABSTRACT This study aims to record the level of awareness about the effects of smoking on periodontal tissues among undergraduate dental students. It is a cross-sectional study that included 100 students. The subjects had to answer 25 questions which were of multiple choice type. Data was obtained, comparative graphs were made and discussed. This study was conducted among students of teaching dental hospital. The response was collected from the students and was calculated in terms of numbers and percentages. The results of the study show a lack of awareness about the harmful effects of smoking on periodontal health among dental students. There is an increased need for Interactive Comprehensive education programs and clinical exposure for students to improve their knowledge.

KEYWORDS : Dental students, Awareness, Periodontal health, Smokers, Tobacco cessation.

INTRODUCTION

Tobacco is consumed among the worldwide population in the form of smoke and also as a smokeless form by chewing along with betel-nut. Smoking is one of the major risk factors for a number of diseases. Five million people are killed by smoking every year. In order to maintain nicotine levels in the brain and to modulate the mood and to avoid the negative effects of nicotine withdrawal, cigarettes are smoked every day by smokers. Several systemic conditions like cardiovascular diseases and pulmonary diseases are caused as a result of smoking. Oral health is also severely affected. Apart from Oral Cancer and Pre-malignant lesions, periodontal tissues are severely affected causing loss of tooth in smokers. Periodontal therapy is also known to result in poor prognosis among chronic smokers. Not only active smoking, but Passive smoking is also known to affect the periodontal tissues. Studies have shown increased levels of albumin, aspartate aminotransferase and lactoferrin in the saliva of passive smokers.

It is very important to gain knowledge on the effects of smoking on oral tissues. Not much of awareness is created regarding periodontal health. This study mainly focuses on recording the awareness about the harmful effects of smoking on periodontal tissues among dental students, so that they can efficiently diagnose, investigate, treat the smokers with periodontal diseases and also counsel them in quitting this habit.

MATERIALS AND METHODS

This is a cross-sectional study. A total of 100 undergraduate students were selected from Dr. Mgr University, Thai Moogambigai Dental College, Chennai, Tamil Nadu, India. Dental students were included in this study. The subjects were briefed about the study and informed consent was obtained from them. Ethical committee approval was obtained from the University.

The questions were about the effects of tobacco, signs, symptoms, causes of periodontal disease and treatment options in smoking individuals was also included. The questionnaire consists of 25 questions. It included demographic questions, personal attitude towards treating smoking individuals, knowledge related questions, attitude and willingness in gaining knowledge regarding the effects of smoking on periodontal tissues and implementation of health education and tobacco cessation among smokers in their practice and career.

RESULT

Based on the answers we obtained data, the data are tabulated as graphs.

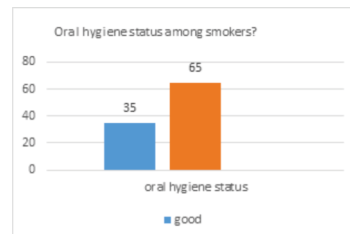


Fig 1: 65% students agreed that oral hygiene is poor among smokers.

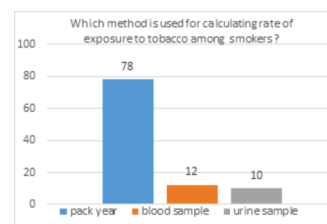


Fig 2: 78% answered that pack year method is used for calculating rate of exposure to tobacco.

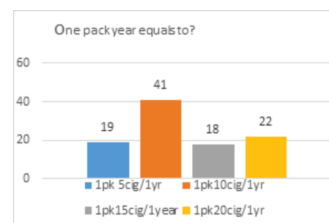


Fig 3: Only 22% students are aware that One Pack year equals to 1 pack of 20 cigarettes per day/for 1 year.

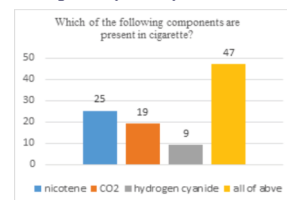


Fig 4: 47% answered that cigarette contains nicotine, hydrogen cyanide and CO₂.

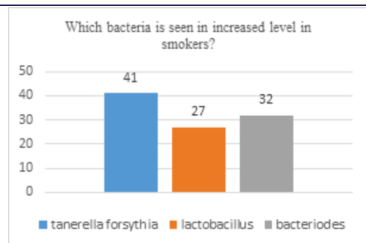


Fig 5:41% responded that smokers have Increased levels of Tannerella forsythia in their oral cavity.

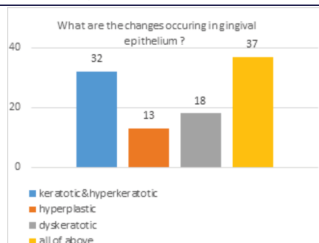


Fig 11:37% answered that Dyskeratotic, keratotic, hyperkeratotic and hyperplastic gingival changes known to occur in smokers.

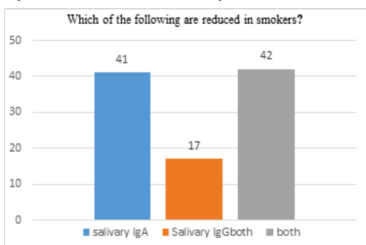


Fig 6 :42% answered that Salivary IgG and Salivary IgA are reduced in smokers.

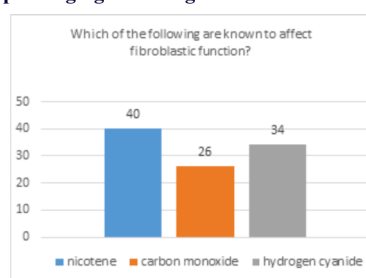


Fig 12:40% responded that Nicotine affects fibroblastic function in smokers.

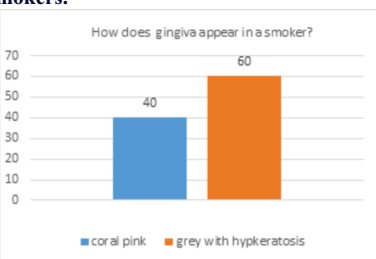


Fig 7: 60% responded that Gingiva appears grey and with hyperkeratosis in smokers. correctly.

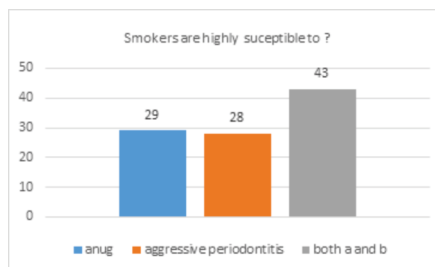


Fig 13:Only 43% students responded correctly.

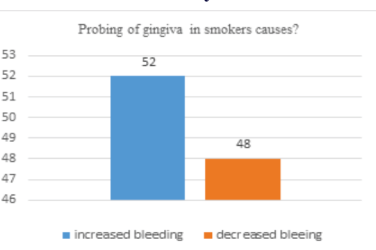


Fig 8: 48 % responded that decreased bleeding occurs while probing the gingiva among smokers.

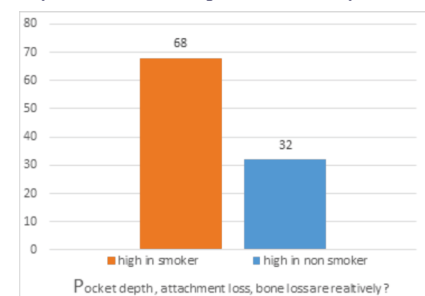


Fig 14: 68% responded that pocket depth, attachment loss and bone loss are high in smokers than non smokers.

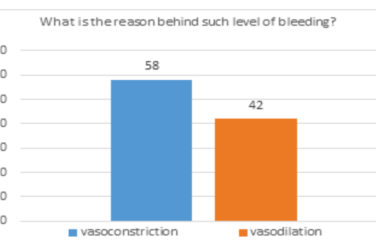


Fig 9: 58%answered correctly that vasoconstriction occurs in smokers.

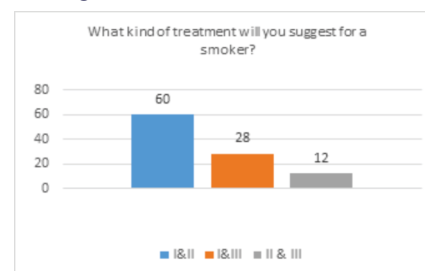


Fig 15:60% responded that they would treat the etiology,provide oral hygiene instructions along with scaling,root planing and counsel the patients to quit the habit.

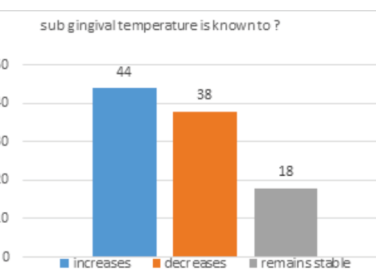


Fig 10: 38 % responded correctly that Sub gingival temperature in smokers usually is lowered.

DISCUSSION

The obtained data reveals that 65 % of the students are aware of the poor oral hygiene status among smokers. Due to the presence of plaque deposits and inefficient brushing habits, oral hygiene is mostly poor among smokers. About 78 % of students have come across the term “ pack year” that is used to calculate the exposure of tobacco in smokers but only 22% of them are aware of calculating the pack-year. Depending on whether the patient is a former smoker or current

smoker the treatment plan will vary. So, It is essential for acknowledging if the patient is a smoker, non-smoker or a former smoker. 47% of the students have a good idea about the contents of the cigarette. Undergraduates should be aware of the components of smoke and how it could cause the oxidative injury. This could cause irreversible damage not only in the mouth but in the entire body as well. 41% of students are very well aware about the increased presence of microorganisms present in smokers. 42 %students know that both salivary IgG and IgA are decreased in people who smoke. 60%of students have answered correctly that gingiva in smokers is grey with hyperkeratotic pigments but only a few are aware of decreased bleeding while probing the gingiva and the reason behind it. Students should strengthen their theory about the effects of smoke on gingival tissues and understand the various gingival changes that occur in the smoking population. Students need to gain more knowledge about the flow of gingival crevicular fluid and about sub gingival temperature which is important in diagnosing diseases of the gingiva. 37 to 40%of students who have good knowledge about changes in gingival epithelium and effects of nicotine on fibroblasts. Most of the students are very well aware that smokers are susceptible to Acute necrotizing ulcerative gingivitis & aggressive periodontitis, about the periodontal changes occurring in periodontitis and the treatment options. In the present study, the data showed that 60% of the students had increased knowledge on the harmful effects of smoking and had awareness on the various forms of tobacco inclusive of smokeless tobacco. However the remaining 40%, were still ignorant of certain aspects on smoking and its impact on the various psychological and pathological changes in the oral cavity. Those students should be targeted and their knowledge should be improved for the betterment of society. Students should have more interactive programs, which could improve their knowledge

CONCLUSION

This study basically focuses on recording the awareness level of the undergraduate dental students about the effects of smoking on periodontal tissues. A lot of information is available in books in journals, still not many students are fully aware about harmful effects of smoking and importance of periodontal health. By including detailed in books and conducting CDE programs more students can enlighten themselves in this top. Even though awareness among students is fair more students have to take the step to be well versed in gaining enough knowledge to differentiate between a smoker and a non-smoker. They should also know "pack year", effects occurring in gingiva due to smoking. They also need enough clinical exposure to observe and identify the changes that occur in a smokers oral cavity. Immense knowledge and awareness will not only help the students in planning the treatment properly but also helps them in educating smokers about periodontal health through tobacco cessation counselling. This is a primitive study conducted, further studies can be conducted to create more awareness.

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