



Assessment of oral health behaviour and knowledge among dental and engineering undergraduate students

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ABSTRACT

Oral health status is directly proportional to a person's oral health behaviour. Oral health of a person can be determined by their regular oral habits like brushing, flossing, smoking and regular dental check-up. Maintenance of poor oral health can lead to severe dental problems. The aim of the study is to create awareness about oral health and behaviour among the dental and engineering undergraduate students. The self-administered questionnaire prepared about oral health behaviour, distributed to 100 dental and engineering graduate students through online google link and data is collected and analysed. From the collected data, 87.18% of dental students brush daily, and 84.62% of engineering students use dental floss to clean the gap between the teeth. This survey helps to bring knowledge on the awareness of oral health behaviour among the dental and engineering students. From this survey, we have concluded that dental students have good oral hygiene when compared to engineering students.



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health can lead to several other life-threatening diseases such as heart diseases and oral cancer. If the dental student maintains good oral health behavior, it will lead them to be a positive role model for their friends, patients and family members (Khami *et al.*, 2007). In the modern world, oral health care plays a major role to prevent oral disease by providing expensive treatment (Davidović *et al.*, 2012). Providing knowledge about oral hygiene to a patient by a dental student creates a strong positive influence on the patient, which makes them move towards better oral health maintenance (Agrawal, 2017).

INTRODUCTION

Oral health status is directly proportional to a person's oral health behavior. Poor oral health of a person can lead to much destructive damage to the teeth such as a formation of plaque, decay in the teeth and also lead to gum disease; Same time-poor

Oral health plays a main role in general health (Rawlinson *et al.*, 2011). Oral health and systemic diseases are closely related to each other (Nazir, 2017). Oral health is always neglected by the people until it becomes severe (Bradbury-Jones *et al.*, 2013). Major oral health problems around the world are dental caries and periodontitis (Eke *et al.*, 2009). Oral

behavior of dental students can vary due to the culture of their country (Sharda and Shetty, 2008).

From the previous article, they have revealed that most of the intermediate school children in Abha were aware of the good oral health and at the same time, few children have visited the dentist due to poor oral health behavior (Masood et al., 2017). They revealed that most females have good oral health habits than male (Radler and Mobley, 2014).

Over the past years various research done by our team was on Osteology (Keerthana and Thenmozhi, 2016; Pratha and Thenmozhi, 2016; Nandhini et al., 2018; Subashri and Thenmozhi, 2016), stature estimation (Krishna and Babu, 2016), uses and ill effects of electronic gadgets (Sriram et al., 2015; Thejeswar and Thenmozhi, 2015), on RNA (Johnson et al., 2020; Sekar et al., 2019), animal studies (Seppan et al., 2018) and in few other fields (Menon and Thenmozhi, 2016; Samuel and Thenmozhi, 2015).

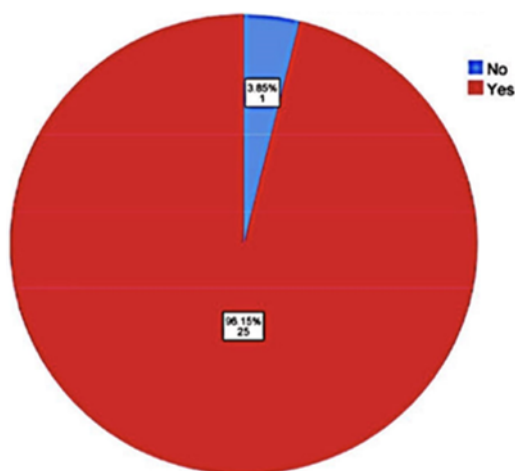


Figure 1: Pie chart represents the responses to the question (Do you brush daily). About 96.15% of dental students brush daily.

From the previous study, they have revealed that the smoking habits among university students are not exhibited by the vast majority of students, and only chain smokers are reported with oral health problems (Shah and Haddad, 2015).

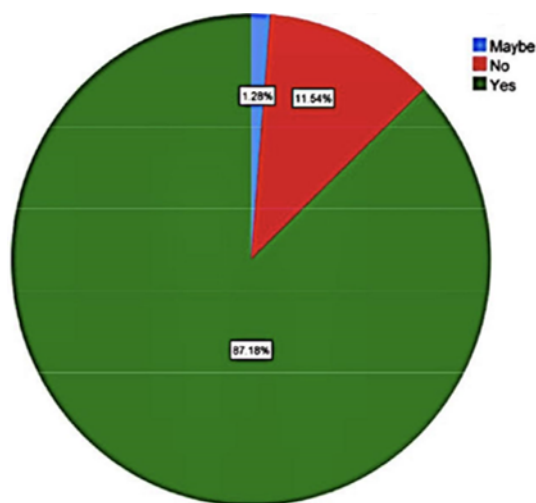


Figure 2: Pie chart represents the responses to the question (Do you brush daily). About 87.18% of engineering students brush daily, and 11.54% of them don't brush daily.

(Choudhari and Thenmozhi, 2016; Hafeez and Thenmozhi, 2016; Kannan and Thenmozhi, 2016)

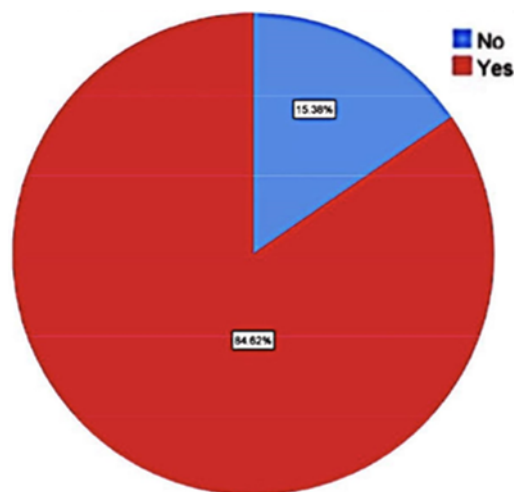


Figure 3: Pie chart represents the responses to the question (Do you use dental floss to clean gaps between the teeth).

There is a lack of much information on the current topic of comparing oral health habits between dental and engineering students, The main aim of the study is an assessment of oral health behavior and knowledge among dental and engineering undergraduate students.

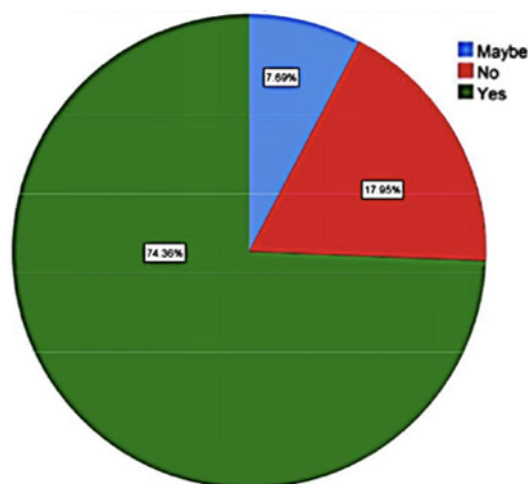


Figure 4: Pie chart represents the responses to the question (Do you use dental floss to clean gaps between the teeth).

MATERIALS AND METHODS

Study Design

A survey was conducted among dental students and engineering students to evaluate their oral health behavior. The sampling method is simple random sampling method. The sample size of the study is 100 (79+21). The participants did the survey voluntarily, and no incentives were given to them. This study was approved by the SRB of Saveetha Dental College and Hospitals and informed consent from the participants was obtained. The study was conducted in the month of May 2020.

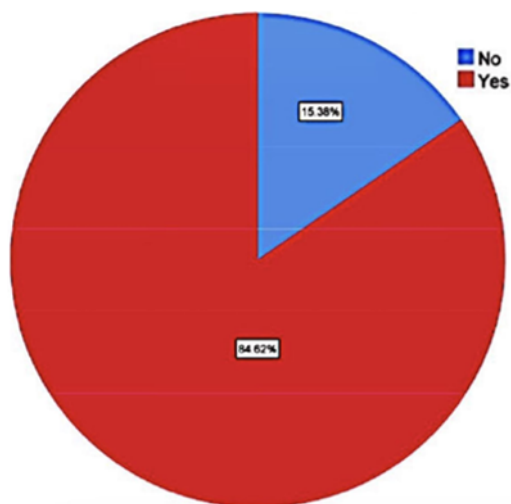


Figure 5: Pie chart represents the responses to the question (Have you undergone any dental treatment previously).

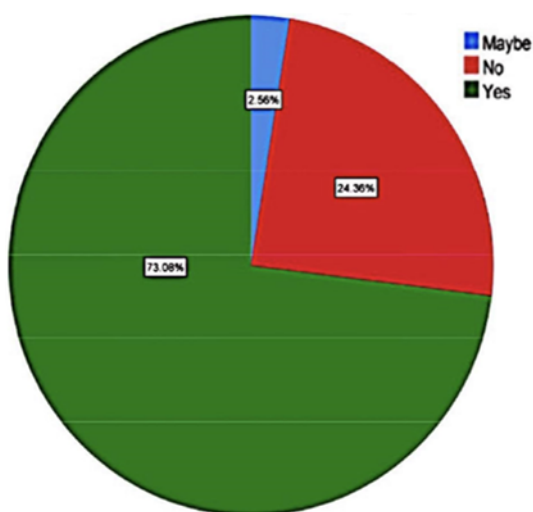


Figure 6: Pie chart represents the responses to the question (Have you undergone any dental treatment previously).

Survey Instrument

The survey instrument, which was a questionnaire, was prepared after an extensive review of the exist-

ing literature. The questionnaire was reviewed, and amendments were made to improve the clarity of the questions to eliminate ambiguous responses. The questionnaire consisted of a total of 15 questions. The questionnaire was shared to dental and engineering students using online survey platform.

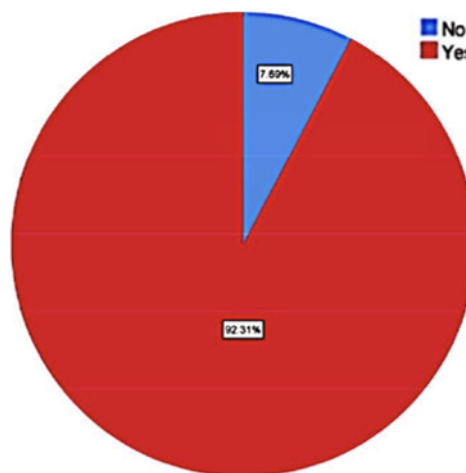


Figure 7: Pie chart represents the responses to the question (Do you visit a dental clinic for regular dental check-up).

Data Analysis

Only completed surveys were taken for analysis, and the incompleting surveys were eliminated. The statistical test used is descriptive statistics. All the responses obtained were tabulated, and the reliability of the data was checked. Bar graph with a frequency table was prepared and analyzed for each question using SPSS statistics 19 data analysis software.

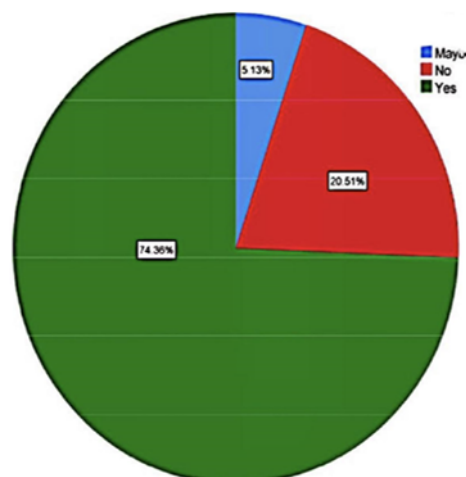


Figure 8: Pie chart represents the responses to the question (Do you visit a dental clinic for regular dental check-up).

RESULTS AND DISCUSSION

Do you brush daily 96.15% of dental students said yes [Figure 1] whereas 87.18% of engineering students said yes, and 11.54% of them said no [Figure 2]? Among dental students, 84.62% of them used dental floss to clean the gap between the teeth, and 15.36% of them don't use it [Figure 3].

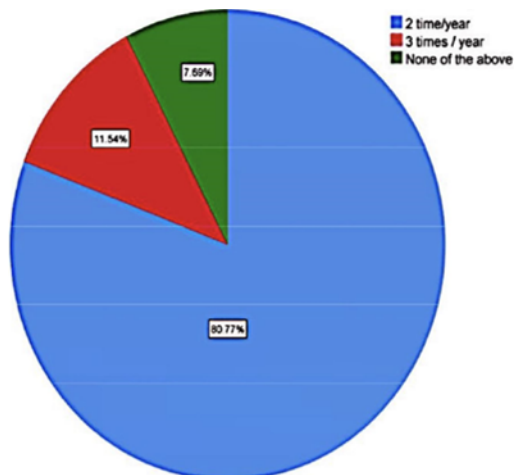


Figure 9: Pie chart represents the responses to the question (How many times in the year you would undergo regular dental check-up).

When compared with engineering students 74.36% of the engineering students use the dental floss to clean the gap of the tooth, and only 17.95% of them didn't use dental floss, and 7.69% of them have no idea about it [Figure 4]. Among dental students, 84.62% of them have undergone dental treatment, and only 15.38% of them didn't have any among dental students previously [Figure 5].

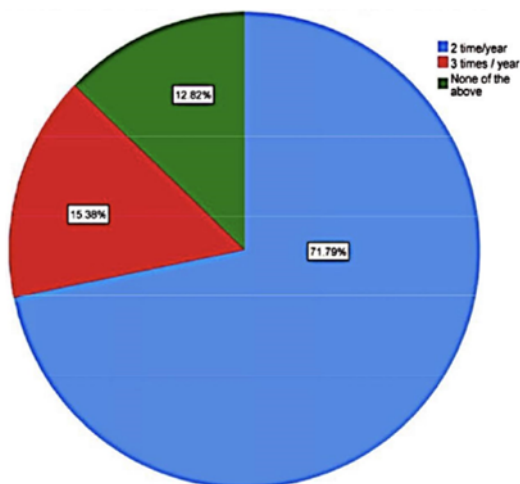


Figure 10: Pie chart represents the responses to the question (How many times in the year you would undergo regular dental check-up).

When compared with dental students, 73.08% of engineering students underwent dental treatment

previously it is in less ratio by comparison with the dental student, and 24.36% of them didn't have any previous dental history [Figure 6].

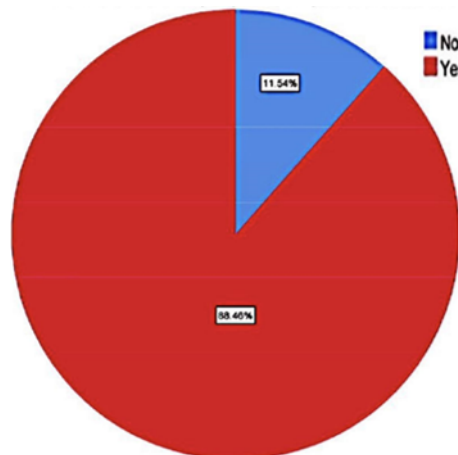


Figure 11: Pie chart represents the responses to the question (Do you know poor oral health can lead to dental caries).

92.31% of dental students visit dental clinics for a regular dental check-up regularly, and 7.69% of them didn't visit dental clinics for a regular check-up [Figure 7]. Only 74.36% of engineering students visit dental clinics for a regular dental check-up regularly, and 20.51% of them didn't visit dental clinics for regular check-up [Figure 8].

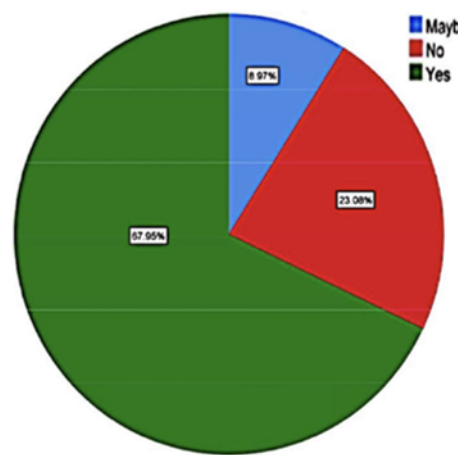


Figure 12: Pie chart represents the responses to the question (Do you know poor oral health can lead to dental caries).

Among engineering students, 71.79% of them go for a dental check-up two times/year, and 15.38% of them visit for a dental check-up three times/year, but 7.69% of them don't go for their dental check-up regularly [Figure 10]. When compared with engineering students, dental students 80.77% of them go for a dental check-up two times/year, and 15.38% of them go for regular dental check-up 3 times/year [Figure 9].

Among dental students, 88.46% of them are aware that poor oral health can lead to dental caries, whereas only 11.54% of them were not aware of it [Figure 11]. When comparing with dental students, engineering students, 67.95% of them were only aware that poor oral health can lead to dental caries and 23.08% of them were not even aware of it [Figure 12].

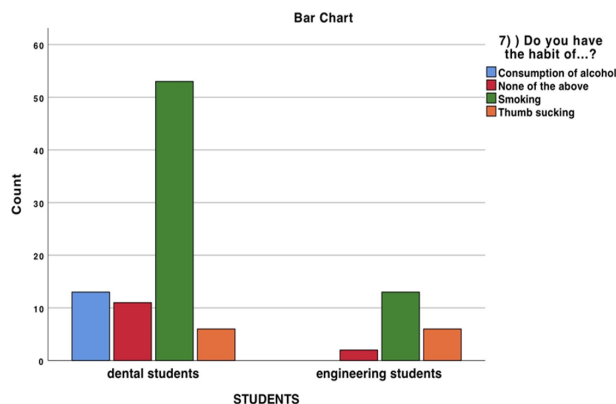


Figure 13: Consumption of alcohol and habit of smoking among college students.

In the bar graph representing Chi-square analysis between dental and engineering students, the habit of smoking among dental students is 61.54%, and engineering student is about 69.23%, the habit of thumb sucking among engineering student is 23.08% wherein the dental student is less as 7.69%, and no habits were opted by dental students is 14.10 %, and for engineering students, it is 7.69%. On performing Chi-square analysis, the P-value was 0.018 (<0.050) hence having statistical significance [Figure 13].

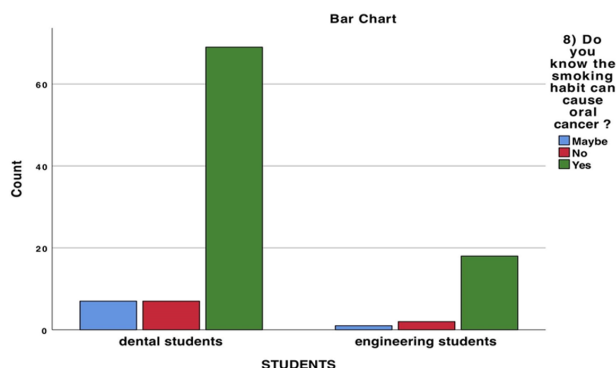


Figure 14: Awareness of smoking as a reason for oral cancer.

In the bar graph representing Chi-square analysis between dental and engineering students awareness on smoking habits can lead to oral cancer 83.33% among dental students and 88.46% among engineering students were aware of it, The P-value was 0.848, and it was not statistically significant [Figure 14].

In the bar graph representing Chi-square analysis between dental and engineering students awareness on the relationship between gum disease and risk of cardiovascular disorder, 80.77% of engineering students and 93.59% dental students accepted that a person with gum disease has the risk of cardiovascular disease, the P-value was 0.769, and it was not statistically significant [Figure 15].

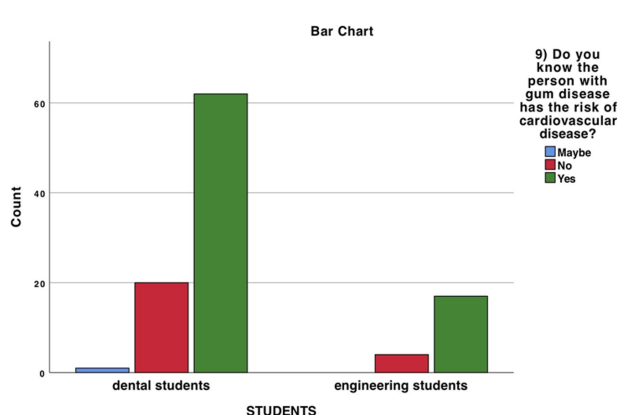


Figure 15: Awareness on the relationship between gum diseases and cardiovascular disease.

Among dental students, 88.46% of them accept that fluoridated water can prevent tooth decay, and only 11.54% of them didn't accept this statement [Figure 16]. Engineering students 71.79% of them accept this statement [Figure 17].

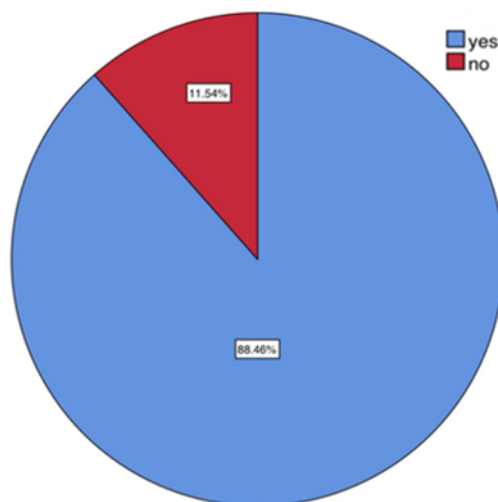


Figure 16: Pie chart represents the responses to the question (Do you know the use of fluorinated water can prevent tooth decay).

Excess of fluoride can lead to dental fluorosis 84.62% of dental students agree with the statement [Figure 18], whereas among engineering students 69.23% of them agree that excess of fluoride can lead to dental fluorosis [Figure 19].

From the previous study, the usage of dental floss among dental students is 55.1%, when it is compared with our study of dental floss use by dental students we had a higher percentage of 74.36% (Yao et al., 2019).

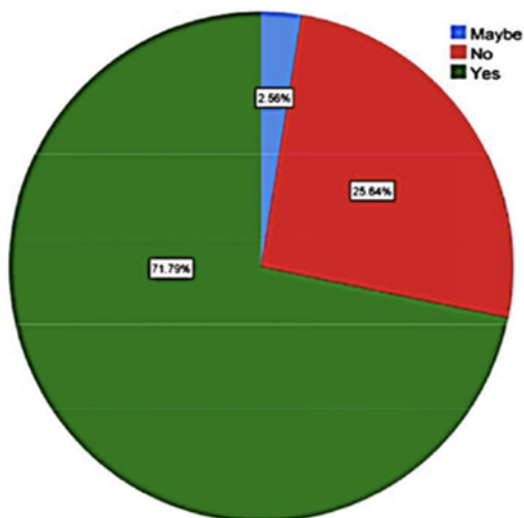


Figure 17: Pie chart represents the responses to the question (Do you know the use of fluorinated water can prevent tooth decay).

From the previous study of Shabeer Ahamed et al., with preclinic and dental students with the statement that the fluoride can prevent tooth decay was accepted by 81% of them compared with our study the result was more (Or) less similar 71.79% of them accepted that statement (Ahamed et al., 2015).

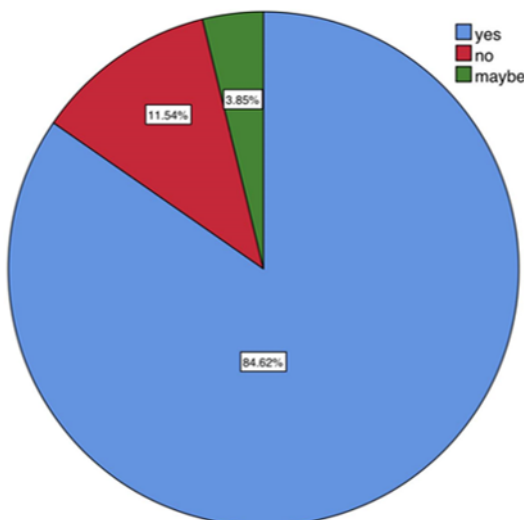


Figure 18: Pie chart represents the responses to the question (Do you think an excess of fluoride can lead to fluorosis).

From the previous study of Gupta et al., the habit of smoking was 12.1% of dental students when compared with our study the value was high as 61.54% of them have the habit of smoking (Gupta et al.,

2015).

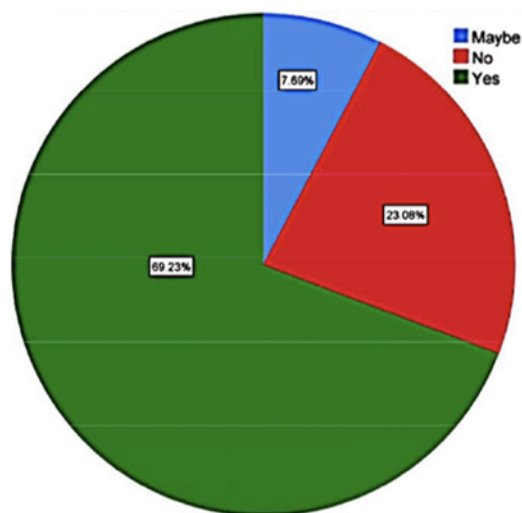


Figure 19: Pie chart represents the responses to the question (Do you think an excess of fluoride can lead to fluorosis).

The limitation of this study is this was a cross-sectional study done only among 79 dental and 21 engineering undergraduate students. In future, this study will be helpful to spread awareness about maintaining good oral health and its uses among rural people and preschool children can prevent them from oral health problems.

CONCLUSION

From this survey, we have concluded that dental students have good oral hygiene when compared to engineering students. This study is helpful to know about oral health and behavior habits among dental and engineering students.

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The authors declare that they have no funding support for this study.

Conflict of Interest

The authors declare that they have no conflict of interest for this study.

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