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Evaluation Of Oral Hygiene Practices Among Dental Students - A Cross-Sectional Survey

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ABSTRACT

Background : The prevention of oral disease is the most acknowledged and efficient method of ensuring oral health. Oral health is now renowned to be equally important in relation to general health. Dental students' oral-health attitude reflects their understanding of the importance of disease prevention and their commitment to improve their patients' oral health; these attitudes should be developed and reinforced during undergraduate training. Recently there's been a lot of innovative technologies like micro ultrasonics.

Aim : The aim of this study is to assess the knowledge, attitudes, and self-care practice behaviors towards maintaining oral-health among dental students.

Methods : Cross sectional survey was conducted among dental students in a private dental institution in Chennai.Online forms were created and distributed among dental students. IBM SPSS software (version 23) has been used for statistical analysis and Chi square was used for comparison.

Result : In regards to the survey,77% of the students studying dentistry are aware of oral hygiene practices. But relatively few of them (22%) follow the oral hygiene practices.When association was done between the gender and using toothpaste containing fluoride, it was noted that both males and females used fluoride toothpaste. Pearson chi square test shows p value is 0.618 (p value >0.05).Hence,it is statistically insignificant . When the gender was compared with different oral hygiene practices followed, both males and females used brush, mouthwash and dental floss for maintaining the oral hygiene. Pearson chi square test shows p value is 0.410 (p value >0.05).Hence,it is statistically insignificant.

Conclusion : There is reasonably good awareness about oral hygiene practices among students studying dentistry. Further reinforcements with awareness programs, camps and meetings can ensure the practice of these techniques.

Key words : Oral hygiene practices , Dental students , Awareness, Innovative technology , innovative technology, novel method

INTRODUCTION :

Oral health behaviour shows a great impact on society (1). Oral hygiene is the practice of keeping the mouth,teeth clean and free from diseases, other problems(2). Oral health is an important aspect of general health(3). Good oral hygiene is a necessity , lack of which results in a variety of different oral health problems(4). It's not only important for maintaining good health and gingiva but also for the people who have undergone dental treatments or surgeries. It's important that oral hygiene can be carried on a

regular basis to enable prevention of dental problems and bad health. Maintaining good oral hygiene prevents dental problems like dental caries and periodontal diseases.

Dental students are the future educators in oral health care(5). Dental students and dentists are the people who need to educate others. But,some dental students won't practice proper oral hygiene. Dental students' attitude towards the oral hygiene practices(6). Dental students have a major role of significance to play in oral health education(7).Oral health behaviour is important for everyone to maintain good oral hygiene(8). Some of the oral hygiene aids are toothbrushes,dental floss,mouth rinses or mouth washes(9).

Oral hygiene practices are important to maintain good oral hygiene practices are important to maintain good oral hygiene(10). Although a lot of people are aware of oral health hygiene, only a few practice them in their daily lives(11). Self-monitoring and self-efficacy act as mediators in flossing(12). Drinking of fluoridated water keeps the mouth clean(13). Cleaning of the tongue also comes under the oral hygiene methods(14). Proper brushing techniques of the teeth leads to good oral hygiene(15). Brush the teeth twice a day(16). Although people are aware of brushing teeth,most people brush once a day(17).Everyone should visit a dentist once every 6 months(18). So,any oral related problems can be treated(19).

This research is needed to create more awareness among dental students regarding oral hygiene practices(20). This creates awareness about the oral hygiene practices to keep mouth and teeth clean(21)(22).The aim of this study is to compare oral-health knowledge, attitudes, and self-care practice behaviors among dental students

MATERIALS AND METHODS :

This cross-sectional study was conducted among the undergraduate and postgraduate students of Saveetha Dental College and Hospital. To evaluate the knowledge of the oral hygiene practices of the participants, a self-administered questionnaire containing 10 questions was made. The questionnaire was validated and later distributed to the participants. A web-based questionnaire was also developed using Google forms and was circulated. The participation of the subjects was kept voluntary and nobody was not obligated to fill the form. Questions were answered with "yes" or "no" or by marking the correct responses. To minimise the sampling bias, simple random sampling was performed..Data was collected and analysed using IBM SPSS version. Chi-square was done and cross tabs were also used during the survey to compare and obtain the results for statistical analysis. P value <0.05 is considered as statistically significant.

RESULT :

Among the participants ,51% of the students were male and 49% of them were females (Figure 1). 77% of the dental students are aware of different oral hygiene practices and the remaining 23% are not aware. 68% of the students brush their teeth once a day and 3% of students not at all brush their teeth. 62% of the dental students practice oral hygiene practices like brushing,mouthwash and dental floss. Most of the dental students that are 44% consult a dentist for every 6 months. 26% of the students

rarely consult the dentist. 16% of the students do not at all consult the dentist. 59% of the students change their brush for every 4 months, 25% change their brush for every 1 month. 9% of the students change their brush every 6 months and 7% for more than 6 months (Figure 2). 43% of the dental students use dental floss once in a day , 27% of the dental students do not use dental floss. 25% of the students use it rarely. 75% of the dental students clean their tongue everyday. 9% of the students do not at all clean their tongue. 9% of the students clean their tongue. 8% of the students do not at all clean their tongue. 55% of the students do not notice bad breath while speaking. 18% of the people rarely notices it. 49% of students use fluoride containing toothpaste. 9% of the dental students don't use fluoride containing toothpaste (Figure 3).In males, 33% of them are aware of oral hygiene practices and in females 44% of them are aware of oral hygiene practices. 33% of the males follow dental hygiene practices and 31% of the females use more than one dental hygiene practice.23% of the males are not sure about whether their toothpaste contains fluoride or not. 19% of the females are not sure whether their toothpaste contains fluoride or not.The people who are aware of different oral hygienic practices use brush,mouthwash and dental floss everyday that is 56% of the students. 18% of the students use only brush but are aware of oral hygienic practices. When a comparison was done between the gender and awareness in oral hygiene practices, it was noted that both males and females were aware about the different oral hygiene practises. .Pearson chi square test shows p value is 0.025 (p value < 0.05).Hence,it is statistically significant. (Figure 4). When association was done between the gender and using toothpaste containing fluoride, it was noted that both males and females used fluoride toothpaste. Pearson chi square test shows p value is 0.618 (p value >0.05).Hence,it is statistically insignificant (Figure 5). When the gender was compared with different oral hygiene practices followed, both males and females used brush, mouthwash and dental floss for maintaining the oral hygiene. Pearson chi square test shows p value is 0.410 (p value >0.05).Hence,it is statistically insignificant(Figure 6).

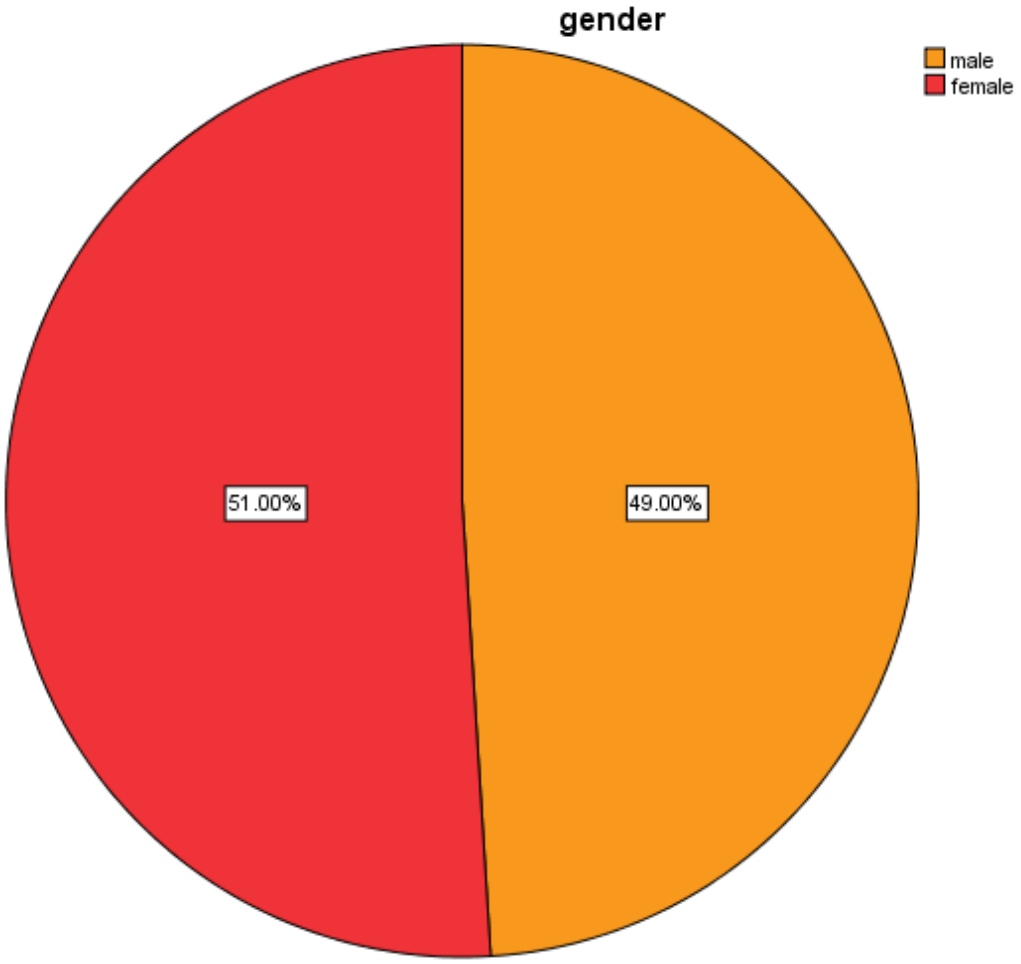

Fig 1 : Pie chart representing the gender proportions participated in the study. Among the dental students ,51% of the students were male and 49% of them were females.Orange indicates male and red indicates female.

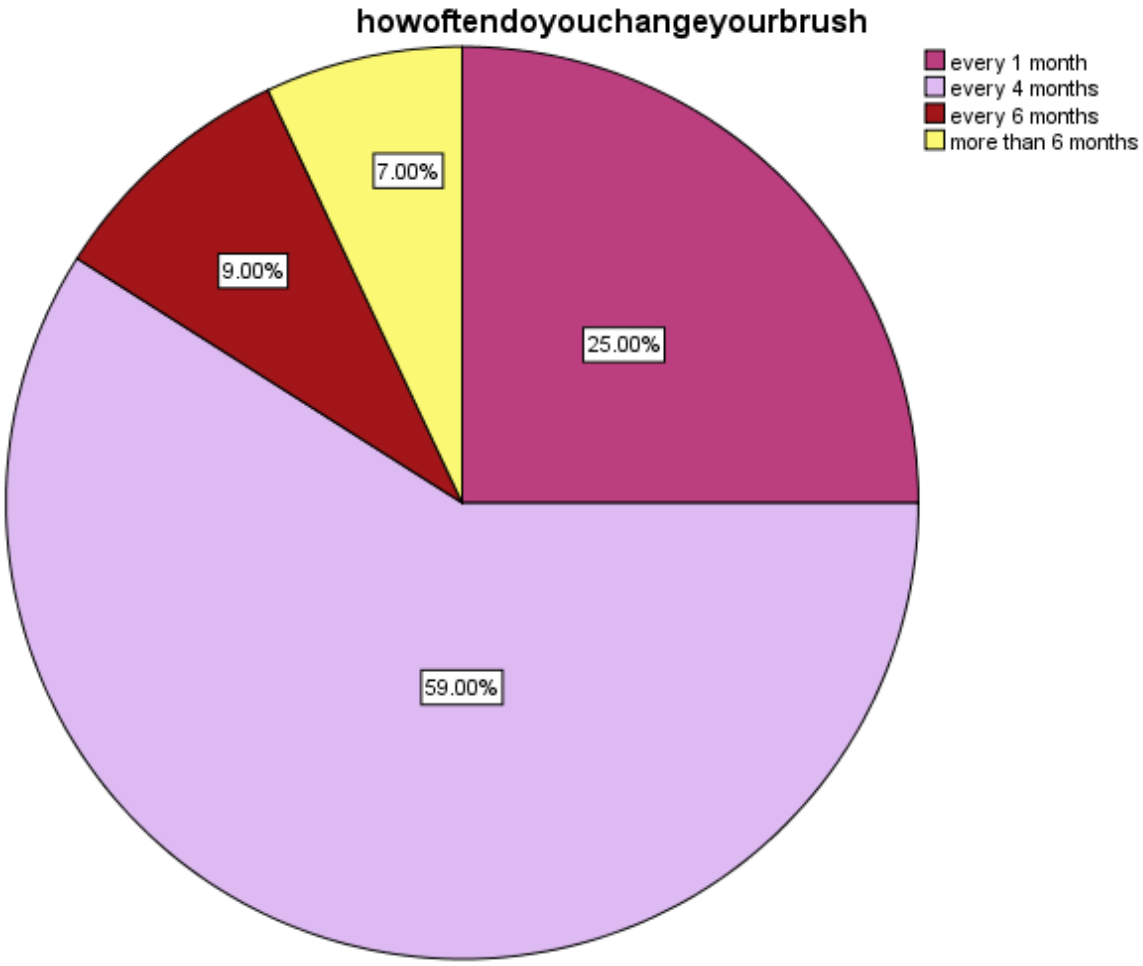

Fig 2: Pie chart shows the response regarding the time period of change of brush. Violet indicates every 4 months, pink indicates every 1 month, yellow indicates every 6 months and yellow indicates more than 6 months. 59% of the students change their brush every 4 months. 25% of the students change their brush every 1 month. 9% of the students change their brush for every 6 months and 7% of the students change their brush for more than 6 months.

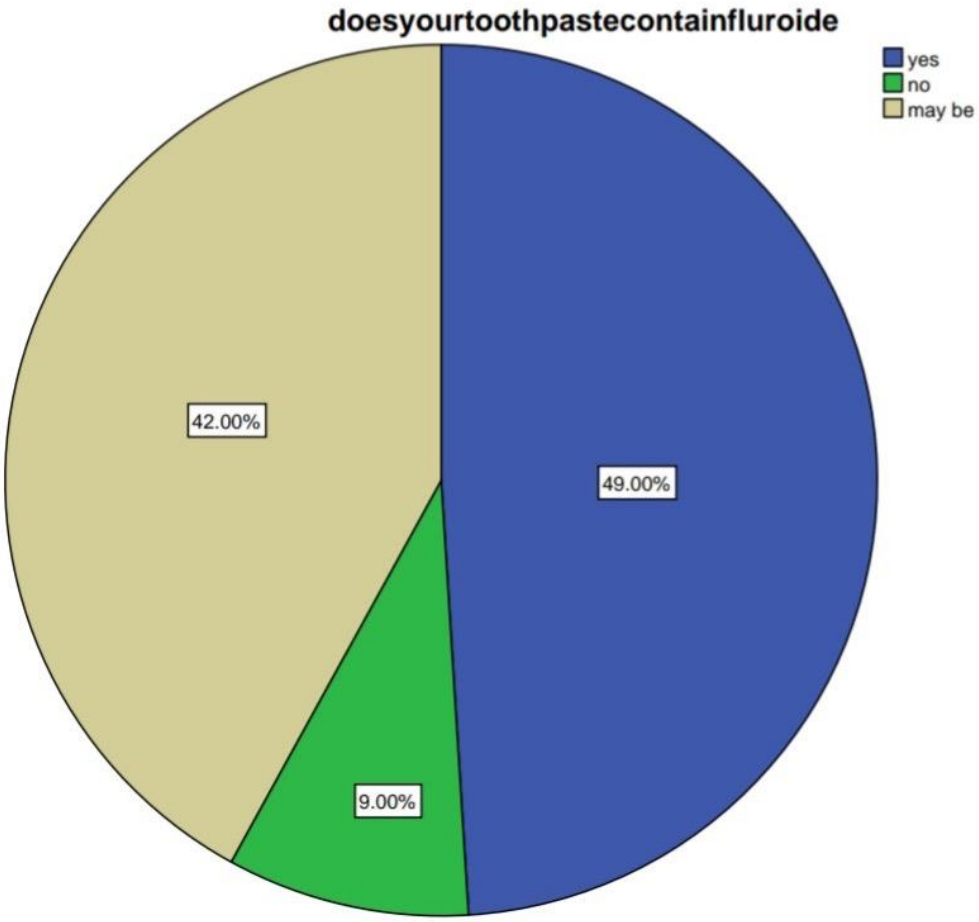

Fig 3: Pie chart shows the response about the use of fluoride in the toothpaste. Blue indicates yes, skin indicates maybe and green indicates no. 49% of the students used fluoride toothpaste. 42% of the students are not sure if their toothpaste contains fluoride and 9% of the students used non fluoridated toothpaste.

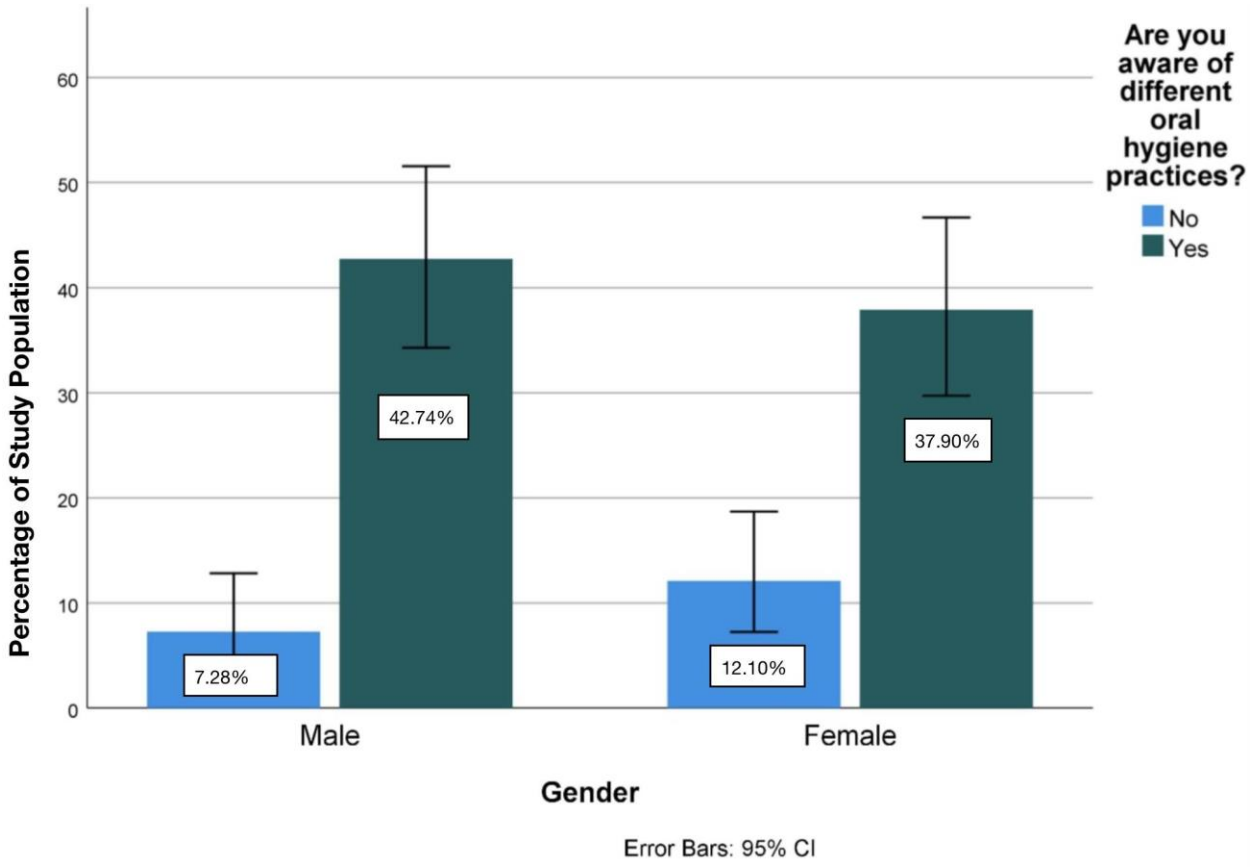

Fig 4: The bar graph represents the association between gender and awareness in oral hygiene practices. X axis represents gender and Y axis represents the number of participants. Blue denotes yes and green denotes no. Both males and females were aware about the different oral hygiene practises."42.74% of males and 37.90% of females were aware of different oral hygiene practices while only 7.28% of males and 12.10% of females were not aware of them". Pearson chi square test shows p value is 0.025 (p value < 0.05).Hence,it is statistically significant.

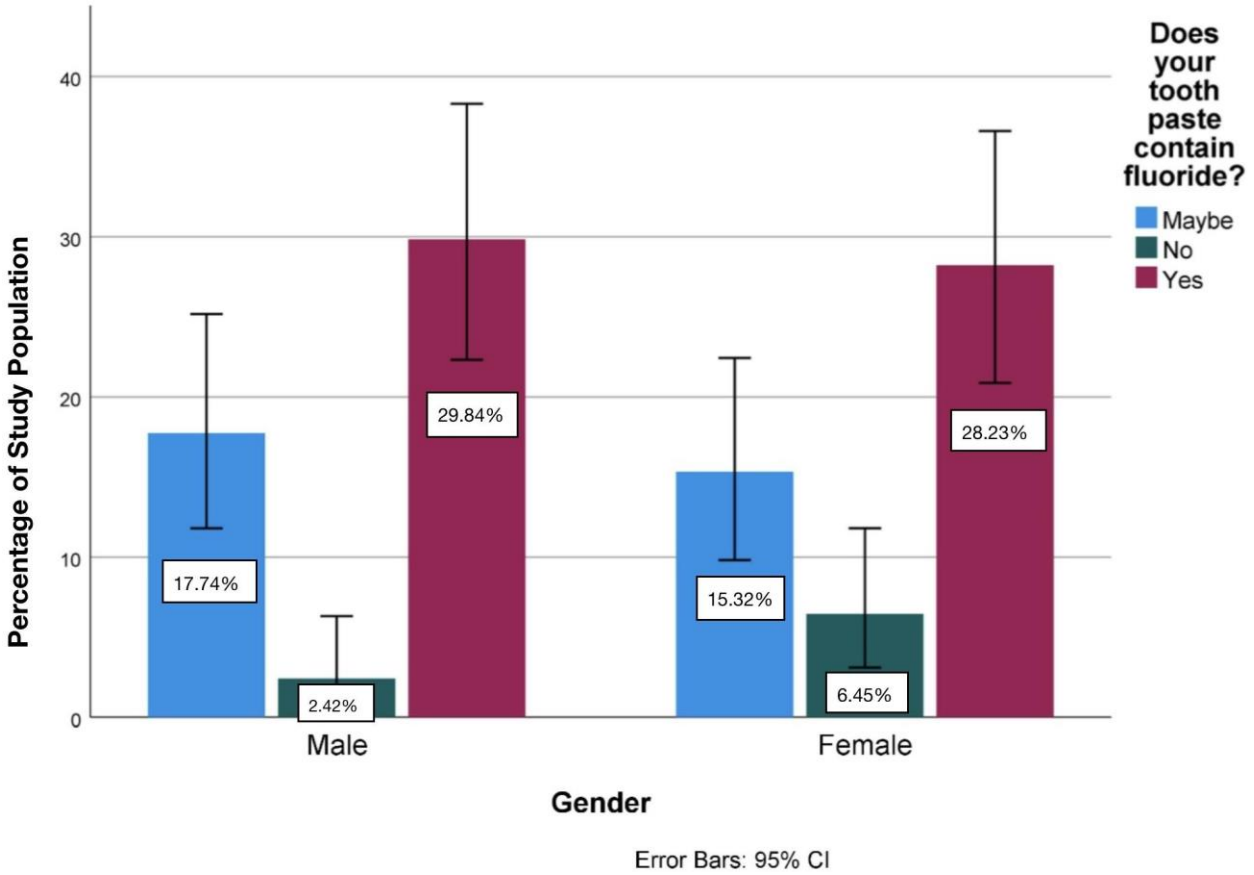

Fig 5: The bar graph represents the association between the gender and using toothpaste containing fluoride. X axis represents the gender and Y axis represents number of participants.. Blue denotes yes, green denotes no and beige colour denotes maybe. 29.84% of males and 28.23% of females used fluoride toothpaste, 2.42% of males and 6.45% of females were not aware of the benefits of using fluoridated toothpaste, 17.74% of males and 15.32% of females are equivocal about using the fluoridated toothpaste . Pearson chi square test shows p value is 0.618 (p value >0.05).Hence,it is statistically insignificant.

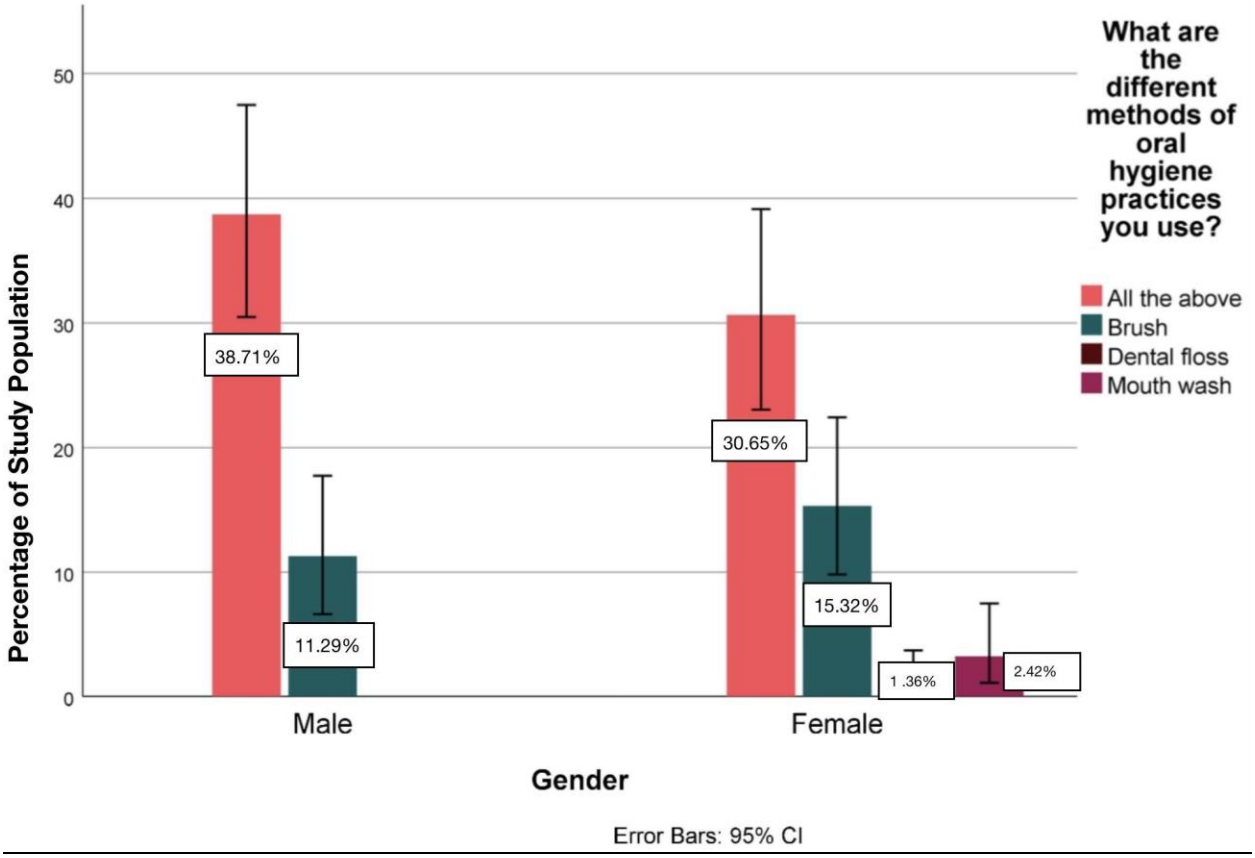

Fig 6: The bar graph represents the association between the gender and different oral hygiene practices followed. X axis represents gender and Y axis represents the percentage of participants. Dark green denotes brush, glass green denotes mouthwash, beige denotes dental floss and purple denotes all the above.Both males and females used brush, mouthwash and dental floss for maintaining the oral hygiene. Pearson chi square test shows p value is 0.410 (p value >0.05).Hence,it is statistically insignificant.

DISCUSSION :

Most of the dental students are aware about various oral hygiene practices(77%). Different methods of oral hygiene practices like toothbrushes,mouthwash,dental floss are followed by the dental students. Most of the dental students do not follow more than one oral hygiene method due to lack of time(62%). In comparison with the previous studies,similar findings can be observed(23)**.** Most of the students are aware of oral hygiene practices and they use different dental practices to maintain oral hygiene(24). Dental students have a significant role to play in public oral health education and its promotion.Dental students in general have been found to have a positive oral health attitude.(25)

Regular dental visits are an important aspect of maintaining good oral health. In our study, strikingly almost 7% of the participants visit dentists rarely, they visit dentists once in more than 6 months.

Another study by Kamble et al reported 45% of medical students of ESIC Medical College, Gulbarga, never visited a dentist (26). However, in another similar study among the medical students of Karad, only 18.3% students were found to have never visited the dentist (27). When compared to previous studies, an opposing finding was found that most of the students consult a dentist every six months.This finding is due to lack of awareness about dental visits among the students (28).

Most of the students brush their teeth twice a day(68%). 49 % of the students use fluoride containing toothpastes. It is important to use these fluoride tooth pastes as the fluoride content in these tooth pastes will prevent dental caries. Most of the dental students change their brush for every 4 months(59%) as the toothbrush should be changed frequently at least once in every 4 months(29). Compared to previous research, generally people change their brush every three or four months.(30);(31)**.** The finding of this research and the research compared are almost the same. The similarity might be due to obtainment of basic knowledge regarding oral hygiene.

Most people use dental floss once a day (43%) due to lack of time and carelessness. Most of the people clean up their tongues everyday(75%) as it helps in maintenance of oral hygiene practices. Flossing can help remove plaque, food build-up between the teeth, reduce the risk of gingivitis, gum disease, and reduce the risk of tooth decay .When compared to previous studies, students clean their tongue once in a week and a few students don't clean their tongue at all. This finding is due to lack of awareness about the importance of oral health in few participants(30);(32)**.**

Good oral hygiene translates to good oral health. Dental problems such as cavities or gum disease can impair the ability to eat and speak properly. Improper oral hygiene causes pain and bad breath. Poor dental health can have profoundly, negative effect on areas outside the mouth. Many people know about the oral hygiene practices but only a few follow it. A lot of the people should get aware of oral hygiene methods and practice them in the future.

CONCLUSION :

From this study it can be concluded that an appreciably high level of knowledge about oral self-care procedures is seen among the undergraduate dental students..

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