

ASSESSMENT OF ORAL HEALTH RELATED KNOWLEDGE, ATTITUDE AND PRACTICE OF YOUNG ADULTS IN CHENNAI

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Abstract

Introduction: Health starts from the mouth. Having good oral health has an influence on overall general health, confidence levels and well being of a person. General health and oral health should hence not be seen as separate and they should be given equal importance. Our everyday habits such as cleansing habits, eating habits, etc, determine our oral hygiene status. Oral hygiene is not just an individual goal but a community goal on the whole. The aim of our study is to determine the oral health related knowledge, attitude and perception of young adults.

Materials and Methods: A well structured questionnaire comprising 16 questions along with demographic data was circulated through google forms among 100 randomly selected young adults within Chennai. The responses were collected and analysed statistically using Chi square test on SPSS version 23.

Results and Discussion: Oral health related knowledge and attitude was found to be very good. Majority of the participants gave equal importance to oral and general health and considered oral health to have an influence on general health. Females were found to have an overall better behaviour towards oral hygiene practices. P values were found to be less than 0.05 which indicates statistical significance.

Conclusion: Hence, the oral health related knowledge, attitude and practice of young adults in chennai was assessed and it was found to be very good.

Key words: Attitude; Knowledge; Perception; Young adults; Oral health, Innovative technique.

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INTRODUCTION

Scientific research in the medical field shows this constantly: health starts from the mouth. The compartmentalization involved in viewing the mouth separately from the rest of the body must cease because oral health affects general health (Sheiham, 2005). Having good oral health nowadays is not only aimed at tooth health, but as amply demonstrated in the literature, it is a starting point for the general health and well-being of our body (Fiorillo, 2019). Health related quality of life is a multidimensional concept. It addresses the trade off between how long and how well people live. Oral diseases such as dental caries, periodontal disease, tooth loss, oral mucosal lesions and oropharyngeal cancers, human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS)-related oral disease and orodental trauma are major public health problems worldwide and poor oral health has a profound effect on general health and quality of life (Alexander, Baez and Phantumvanit, 2020). Also there is a well established link between socioeconomic status and health, including oral health (Locker, 2000). Recent research has indicated possible associations between chronic oral infections and diabetes, heart and lung disease, stroke, and low birthweight or premature births. In other words, oral health refers to the health of our mouth and, ultimately, supports and reflects the health of the entire body (Benjamin, 2010).

Periodontal disease with deep pocketing occurs in Nigerians at an early age, the prevalence being 15-58% in those aged above 15 years. Caries experience has been reported to vary between very low and low in most studies, but is moderate in some urban communities (Akpatha, 2004).

A few recent studies have shown associations between poor oral health and coronary heart disease. Tooth loss may be associated with increased risk of CHD, primarily among those with a positive periodontal disease history (Joshi *et al.*, 1996). It is important to assess the oral health status of a community. Many indices have been used to describe the oral health status of a given population. In dentistry, these indices include Helkimo's index of mandibular dysfunction and the Community Periodontal Index of Treatment Needs (CPITN). Slade and Spencer have also

suggested that measures of oral health status may also be used to advocate oral health, especially when attempting to secure public funds for oral health care. The information provided by these measures facilitates an increasing understanding of how individuals perceive oral health needs and what oral health outcomes drive them to seek health care (Allen, 2003).

Hence oral health is very important for the community and its well being. Dental awareness and easily available facilities are very important for the general well being of the society. Diet also plays an important role in oral health. It was found that the association between diet and dental caries & periodontal disease was statistically significant (Sampat and Hegde, 2015). During childhood, a mother's attitude towards oral health plays an important role in the child's dental status. Considerable potential of mothers should be a major focus of oral health professionals when coming to pedo patients (Saied-Moallemi *et al.*, 2008). Young adulthood is a time when subjects transform their role from a dependent child to an independent social identity. It was found that family ecosocial factors, mainly household income, and malocclusion had an effect on oral health related quality of life of young adults (Sun, Wong and McGrath, 2018).

Previously , so much research has been done to assess the knowledge and attitude towards dental health of various populations. Our team has extensive knowledge and research experience that has translate into high quality publications(Dinesh *et al.*, 2013; Krishnan and Lakshmi, 2013; Muthukrishnan and Warnakulasuriya, 2018; Sekar *et al.*, 2019; Gomathi *et al.*, 2020) (Sathivel *et al.*, 2008; Panda *et al.*, 2014; Govindaraju, Neelakantan and Gutmann, 2017; Johnson *et al.*, 2020; Saraswathi *et al.*, 2020).In this study we aim at assessing the oral health related knowledge , attitude and practice of young adults in Chennai.

MATERIALS AND METHODS

A prospective observational study was conducted among the younger generation between the age group 18-25 which was economical, easy to create, had a wide reach, gathering a lot of data. However it was not able to overcome response bias and survey fatigue.

It involved preparing a well structured questionnaire comprising 16 questions covering socio-demographic information, knowledge, attitude and perception. The survey was circulated to 101 participants via Google forms online. The results obtained were collected (to excel) and analysed statistically. The statistical software used was SPSS version 23. The statistical method used was descriptive statistics. Association analysis was done using Chi Square test with $p \leq 0.05$ as statistically significant.

RESULTS

The results obtained from the participants were analysed statistically as follows.

Table 1: Table showing list of questions from survey and responses along with the percentage of participants who responded with each response.

S.NO	QUESTION	OPTIONS	RESPONSE PERCENTAGE
1.	Gender	Female	79%
		Male	21%
2.	Do you give equal importance to oral health and general health ?	No	23%
		Yes	77%
3.	Do you think maintaining oral health is	No	14%

	important for overall health ?	Yes	86%
4.	How often do you visit the dentist ?	Never	9%
		Once a year	10%
		Once in 6 months	69%
		Whenever I have toothache	12%
5.	How many times a day do you brush your teeth ?	I sometimes don't	9%
		Once	76%
		Twice	15%
6.	Do you floss ?	No	89%
		Yes	11%
7.	What tools do you use for maintaining oral health ?	Mouthwash	12%
		Toothbrush and toothpaste	88%
		Neemstick	0%
8.	What motion do you brush your teeth in ?	Circular	21%
		Horizontal	11%
		Vertical	68%

9.	Do you have any dental caries ?	No	76%
		Yes	24%
10.	How many RCTs or fillings have you done so far ?	1-3	12%
		More than 3	18%
		None	70%
11.	Do you have any of the following daily habits ?	Alcohol	10%
		Alcohol, Cigarettes, Carbonated drinks	9%
		Coffee	5%
		Coffee, Carbonated drinks	1%
		Tea	59%
		Tea, Alcohol, Cigarettes, carbonated drinks	9%
		Tea, Coffee, Carbonated drinks	7%
12.	Do you use fluoridated toothpaste?	No	21%
		Yes	79%
13.	How often do you change your brush ?	I don't track	10%

		Once 3 months	10%
		Once 6 months	68%
		Once a year	12%
14.	Frequency of eating sweets (per day)	More than 10	9%
		Upto 10	10%
		Upto 5	12%
		Upto 3	69%
15.	Preventive services received in dental clinic	Caries prevention	9%
		General checkup	69%
		None	8%
		Scaling	4%
		Scaling, General checkup	10%
16.	If you notice bleeding gums what do you do ?	Go to a dentist	78%
		Home remedies	12%
		Stop brushing	10%

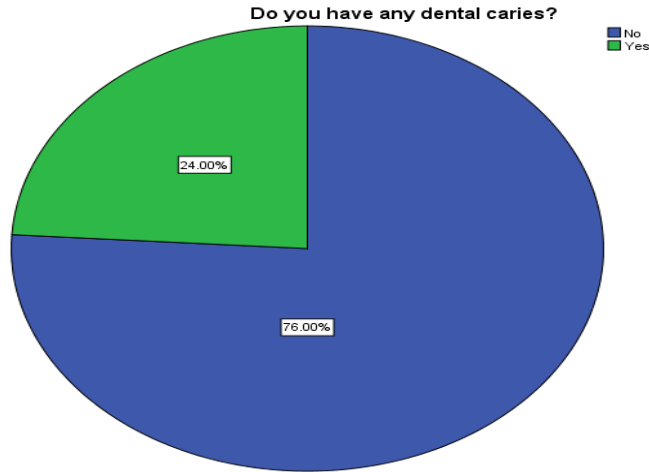


Figure 1: Graph showing percentage of participants with dental caries. Green represents yes while blue represents no. 76% of participants did not suffer from any current dental caries while 24% had active dental caries.

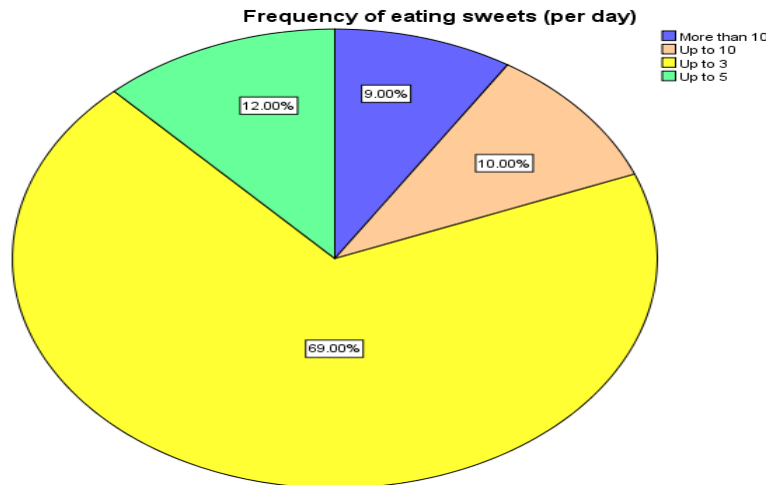


Figure 2: Graph showing the number of sweets participants eat per day in percentage. Light purple represents more than 10, peach represents upto 10, bright yellow represents upto 3, light green represents upto 5. 69% of the participants had upto 3 sweets per day. 12% of participants had upto 5 sweets per day. 10% of participants had upto 10 sweets per day. 9% of participants had more than 10 sweets per day.

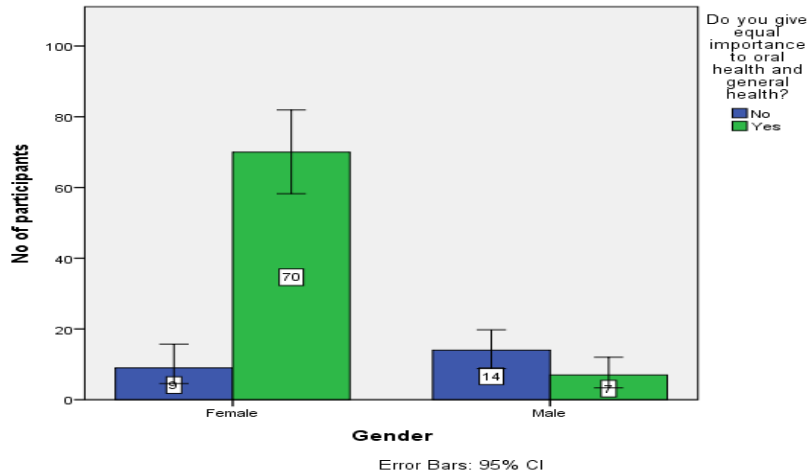


Figure 3: Bar graph showing association between gender of participants and response to the question of whether they give equal importance to oral and general health. x-axis represents the gender of participants while y-axis represents the number of participants. Green denotes yes while blue denotes no. Females were highest to respond with yes and this was statistically significant (Chi-square test $p=0.000$ - indicates statistical significance)

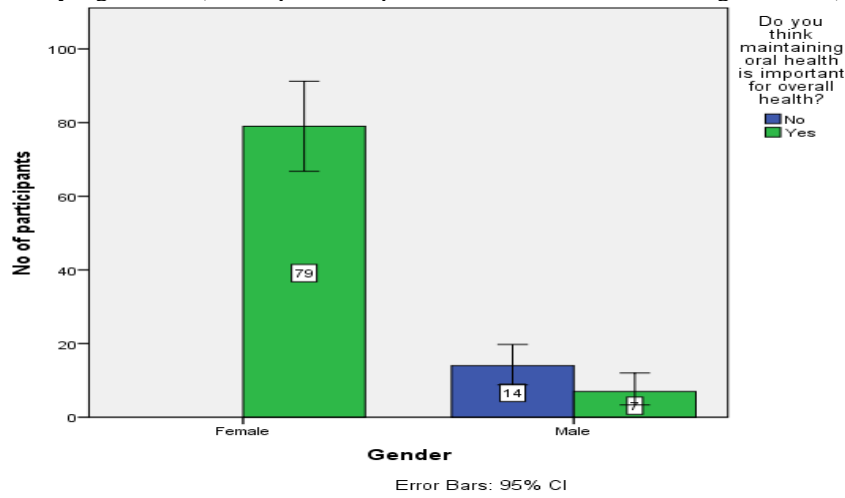


Figure 4: Bar graph showing comparison between gender of participants and response to the question of whether they think maintaining oral health is important for overall health. x-axis represents the gender of participants while y-axis represents the number of participants. Green denotes yes while blue denotes no. Females were highest to respond with yes and this was statistically significant (Chi-square test $p=0.000$ - indicates statistical significance)

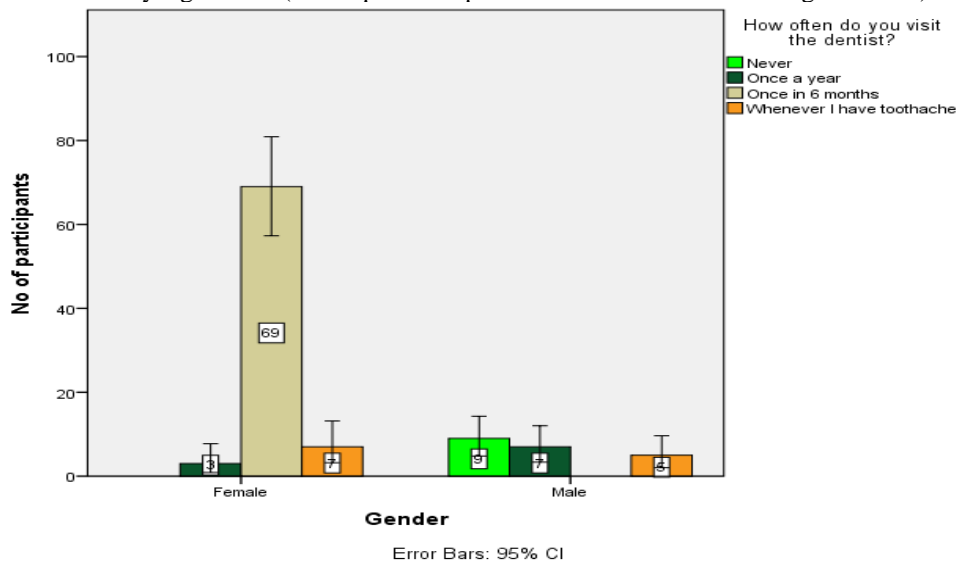


Figure 5: Bar graph showing comparison between gender of participants and how often they visit the dentist. x-axis represents the gender of participants while y-axis represents the number of participants. Light green denotes never, dark green denotes once a year, beige represents once in 6 months and orange represents whenever I have a toothache. Highest response was once in 6 months by females and this was statistically significant (Chi-square test $p=0.000$ - indicates statistical significance)

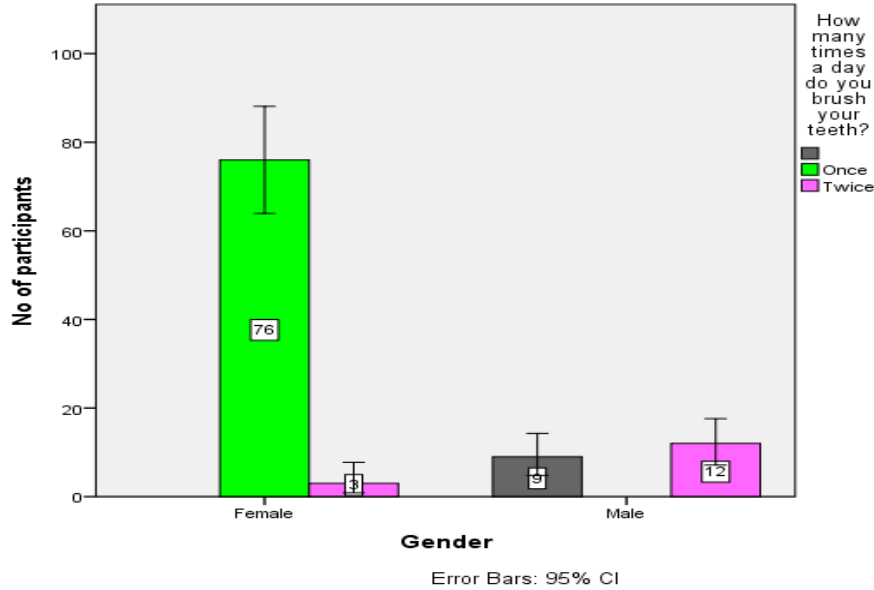


Figure 6: Bar graph showing comparison between gender of participants and how many times a day they brush their teeth. x-axis represents the gender of participants while y-axis represents the number of participants. Grey represents I sometimes don't, neon green represents once a day, pink represents twice a day. The highest response was once a day by females and this was statistically significant (Chi-square test $p=0.000$ - indicates statistical significance)

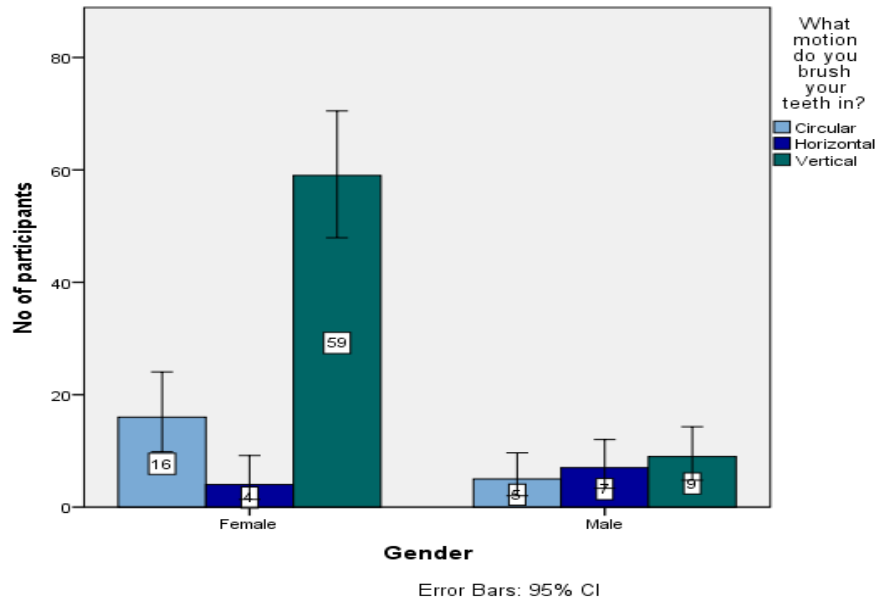


Figure 7: Bar graph showing comparison between gender of participants and the motion in which they brush their teeth. x-axis represents the gender of participants while y-axis represents the number of participants. Light blue represents circular motion, Navy blue represents horizontal motion and dark green represents vertical motion. Vertical motion was the most selected response and it was highest in females and this was statistically significant (Chi-square test $p=0.001$ - indicates statistical significance).

DISCUSSION

The responses collected from the questionnaire are discussed as follows. From **Table 1**, 79% of the participants were females while 21% of participants were males. When asked whether they give equal importance to oral health and general health, 77% of participants replied with yes while 22% of participants said no. When asked whether they think maintaining oral health is important for overall health 86% replied with yes while 14% replied with no. When asked how often they visited the dentist, 10% said once a year, 69% said once in 6 months 12% visit the dentist only

whenever they have toothache and 9% have never visited the dentist. When asked how many times a day participants brushed their teeth, it was found that 76% brushed their teeth once a day, 15% brushed their teeth twice a day and 9% sometimes skipped brushing their teeth. When asked whether participants flossed or not, 89% replied with no while 11% replied with yes. When asked about the tools used by participants for maintaining oral health, 88% of participants used toothbrush and toothpaste while 12% used mouthwash. None of the participants used tooth powder or neemstick for maintaining oral health. When asked about the motion in which participants brushed their teeth, 11% replied with horizontal motion, 68% replied with vertical motion and 21% replied with circular motion. From **Figure 1**, when asked whether participants had any dental caries, 76% replied with no while 24% replied with yes. The participants were also asked whether they had done any RCTs or fillings previously, 70% of the participants had gotten no RCTs or filling done before, 12% said that they got 1-3 RCTs or fillings while 18% had gotten more than 3 RCTs or fillings so far. The participants were asked about their daily consumption habits and they were allowed to select more than one option as to what they have on a daily basis. 75% of the participants had tea, 28% had alcohol, 13% had coffee, 18% had cigarette smoking habits, 26% had carbonated drinks while none of the participants had tobacco chewing habits on a daily basis. When asked whether they used fluoridated toothpaste or not, 79% of the participants replied with yes while 21% did not use fluoridated toothpaste. When asked how often participants changed their toothbrush, 12% replied once a year, 68% replied with once in 6 months, 10% replied with once in 3 months, while 10% didn't even track how often they changed their toothbrush. From **Figure 2**, when asked about the frequency of sweet consumption per day, 69% of participants replied with upto 3 per day, 12% replied with upto 5, 10% replied with upto 10 and 9% replied with more than 10. Patients were asked whether they had received any preventive services in the dental clinic previously and they were allowed to choose more than one option. 14% had received scaling, 9% had received caries prevention, 79% went for general checkup, and 8% had received no service from the dental clinic before. When asked what the participants would do if they noticed bleeding gums, 10% said that they would stop brushing, 78% would go to a dentist, and 12% would rely on home remedies for cure. [Table 1] In **Figure 3** it was found that more females gave equal importance to oral and general health. From **Figure 4**, it was found that more females thought that oral health is important for overall health. From **Figure 5**, when asked how often participants visited the dentist, the most recorded response was once in 6 months by females. From **Figure 6**, when participants were asked how often they brush their teeth a day, the most recorded response was once a day by females. From **Figure 7**, when asked what motion participants brush their teeth in, the most recorded response was vertical motion by females.

In the present study, the majority of the participants gave equal importance to oral health and general health and also thought that maintaining oral health is important for overall health. According to a survey conducted by Alan et al, 2009 (Carr, Beebe and Jenkins, 2009), the majority of respondents (76.1 percent) rated the overall importance of their oral health as "very important." Interestingly, 58.2 percent, 45.8 percent and 69.2 percent of respondents believed that oral health was "about as important" as or "more important" than diabetes, heart disease and arthritis, respectively. This is in accordance with our results.

The daily habits of the participants were also recorded. Majority had tea on a daily basis. Some participants even had the habits of alcohol drinking and cigarette smoking. According to a survey conducted by Syed sarosh et al, 2016, (Mahdi, Sibilio and Amenta, 2016), several dental health problems were present among participants due to their oral hygiene and dietary habits, smoking and alcohol consumption.

Upon assessment of responses overall, we find that females had better responsibility about their oral health than men. This is in accordance with a survey conducted by Akio Tada et al, 2004, (Tada and Hanada, 2004) which indicated that young women had better oral health behaviour and that more factors were associated with their oral health behaviour in comparison with young men.

The limitations of this study are that we have taken into account a limited sample size and homogenous population. Sampling bias may be present. This survey helps us to assess the attitude and behaviour of youth towards oral health and enables us to correct the same. It also spreads awareness about the importance of maintaining oral health

CONCLUSION

Within the limitations of this study it was found that knowledge, attitude and behaviour of youth towards oral health was good and oral health habits of participants were also good. It was found that females had better oral hygienic

practices than males. It is important to instill a sense of responsibility among youth towards their health, both oral and general.

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CONFLICT OF INTEREST: The author declares that there was no conflict of interest in the present study.

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