Awareness about oral healthcare and disease prevention among Tiruvannamalai population

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ABSTRACT

Oral health care is the foundation upon which preventive evaluation and dental care must be built to enhance the opportunity for life free of preventable and oral diseases. The purpose of the study was to determine the oral health care and disease prevention among the Tiruvannamalai population. Self-administered questions were prepared. The questions were distributed in google forms, and 100 participants participated. The data was entered and statistically analysed. In this study, 88% maintain oral health as an integral part of our everyday practice. 65.1% maintain good oral health by using a toothbrush and paste, and 11% are losing their teeth daily. 33% are cleaning the teeth to prevent dental disease. Within the limitations of the study, we can conclude that oral health knowledge among the Tiruvannamalai Population was considerably lower than what would be expected. Still, they showed a positive attitude toward oral healthcare.

INTRODUCTION

Oral health care is the foundation which helps in preventive dental care in order to protect, prevent and establish an opportunity to survive in an oral disease-free environment (Östberg et al., 1999). The major chronic oral diseases are dental caries, gingival and periodontal diseases, oral reactive lesions, oral malignancies, etc. (Khami et al., 2007; Shree et al., 2019). The oral diseases are dependent on a group of risk factors which can be chronic or acute (Al-Omari and Hamasha, 2005). These common risk factors are lifestyle-related, such as dietary habits, use of tobacco and excessive consumption of standard hygiene (Fukai et al., 1999). Oral diseases are considered as a public health problem as they impose a significant impact on society (Loe et al., 1967). Tooth loss is a common manifestation of chronic oral disease and is associated with physical, emotional and economic impacts (Sharda and Shetty, 2010). Change in Physical appearance may also result in a negative impact on the patterns of the day to day life and social relationships (Timmerman et al., 1996).

Oral diseases are related to lifestyle, and the recent drop in the prevalence of dental caries and periodontal disease is a testimony of the increased awareness and practice of healthy lifestyle (Sargod et al., 2007). But there is still a lag in this aspect among the developing countries (Nishana et al., 2018). Brushing habits and techniques seem to vary between the developing and developed countries,
Knowledge regarding oral health is considered an essential prerequisite for health, as oral health has a direct impact on systemic health and the quality of life (Åstrøm and Masalu, 2001). Many studies have correlated increased knowledge with better oral health status among that population (Kumari et al., 2006). The general public should be advocated about oral health measures by Dentist and accessory dental health personnel (Mayamol, 2020). They play an important role in the health education of individuals and groups and act as role models for large communities (Mandel, 1988). The aim of this study is to determine awareness about oral healthcare and disease prevention among the Tiruvannamalai population.

MATERIALS AND METHODS

A cross-sectional survey was conducted among the Tiruvannamalai population. Convenience sampling was done, and the sample size was 100. The study was approved by the scientific review board. The questionnaire is a self-structured questionnaire with 10 questions. The questionnaire was first validated by face validation followed by pilot testing in 20 respondents, analysis of the dataset, review and preparation of the final questionnaire was then done. The data collection online platform used was Google forms. The data collected was tabulated as an excel - spreadsheet. Each output variable from question 1 to 10 was ordinal data and was represented as a pie chart. The data was then exported to SPSS. Descriptive statistics and Chi-square test was done to compare between the genders.

RESULTS AND DISCUSSION

66.1 % are female and 33.9 % are Male (Figure 1). 80.7 % are aware of the importance of oral healthcare, and 19.3 % are not aware of the importance of oral healthcare (Figure 2). Male participants were more aware of oral health than females, p=0.000. Chi-square test shows statistical significance with male participants being more aware (p=.000) (Figure 3). 88.1 % maintain oral health as an integral part of our everyday practice, and 11.9 % do not agree with this (Figure 4). Females consider oral health an integral part of their everyday practice, p=.033. Comparison shows statistical significance (Figure 5). About 65.1 % maintain good oral health and using a toothbrush and paste, and 11 % are flossing daily, 9.2 % tooth powder and 9.2 % herbal products. 11.01 % are flossing daily, 9.17 % are using herbal products, 5.50 % are using salt with the finger, 65.14 % are using Toothbrush and paste, 9.17 % are using Toothpowder (Figure 6). There was no difference in the oral hygiene practices between males and females, p=.594. The comparison shows no statistical significance (Figure 7).

Figure 1: Gender distribution of the participants

Figure 2: Pie chart depicting the response of the participants regarding their awareness about oral health care

Figure 3: Bar chart depicting the association of responses with male and female participants regarding their awareness about oral health care

6.42 % is more than twice a day, 50.46 % are brushing once a day, 43.12 % are Twice a day (Figure 8).
There was no difference in the frequency of brushing between males and females, \( p = 0.169 \). Comparison shows no statistical significance (Figure 9). 68.8\% are using mouthwash, and 31.2\% do not use mouthwash (Figure 10). There was no difference in the use of mouthwash between males and females, \( p = 0.501 \). A comparison shows different no statistical significance (Figure 11). 33\% are cleaning the teeth to prevent dental disease, 33\% clean to prevent bad breath and 14.7\% to prevent bleeding gums. 14.68\% to prevent bad breath, 12.84\% to prevent bleeding of gums, 33.03\% to prevent dental disease 38.53\% all of the above, 0.92\% None of the above (Figure 12). There was no difference in the awareness between the genders regarding the purpose of cleaning the teeth, \( P = .778 \). Chi square test shows no statistical significance (Figure 13). 47.7\% agreed bleeding gums indicate gum disease,
but 34.9% thought it to depict healthy gums, and 17.4% were not sure (Figure 14). Females were more aware than males in this regard, and the result was statistically significant (P = .05). The comparison shows that females were more aware than males and the result is statistically significant (Figure 15). 77.1% of the participants agreed that a regular visit to the dentist is important to maintain good oral health, and 22.9% do not agree. Comparison shows
Figure 16: Pie chart showing the response of the participants on whether the regular visit to the dentist is important to maintain good oral health.

Figure 17: Bar chart depicts the comparison of opinion between male and female on whether the regular visit to the dentist is important to maintain good oral health.

Figure 18: Pie chart indicating the last time of the visit to the dentist by the participant.

Figure 19: Bar chart depicts the comparison of the last time of the visit to the dentist between male and female.

Knowledge about oral health does not always translate into good oral health behaviour. Still, it initiates a spark which enables them to take control of their oral health status and adopt better self-care practices (Palati et al., 2020). There are no studies pertaining to Tiruvannamalai population with regard to oral health practice, and this is the first of its kind. 80% of the participants were aware of the importance of oral health care. (Uma et al., 2018; Prasanna and Gheena, 2016) A similar survey was also conducted among other populations, and they seemed to be well aware of personal health care and the need for a lifestyle change (Krishnan et al., 2018; Ahad and Gheena, 2016). The increased awareness about oral health care can be attributed to the various advertisements and campaigns which are done over social media nowadays.

Most of the participants have advocated oral health as being an integral part of their everyday practice, which is by a national oral health survey which was done 20 years ago (Mithra, 2019). Tooth brushing is the most common method of maintaining oral health affirmed by the participants, but most of them brushed only once a day. However, tooth brushing carried out using the right technique, along with other adjuncts like flossing, should be advocated by the dentist. The patients can be motivated to follow these protocols by sequential dental photographs showcasing the improvement in dental health and
hygiene (Hannah et al., 2018). Using wrong brushing techniques can also result in adverse effects like tooth sensitivity. Hence, it is important to create awareness regarding the same (Gunasekaran and R, 2016; Harrita and Santhanam, 2019; Sukumaran and Padavala, 2018). Majority of the participants agreed that the reason for maintaining oral health was to protect from various dental and oral diseases (Zafar et al., 2019; Sheriff and Santhanam, 2018).

On analysing the awareness about bleeding gums, most of the participants attributed it to gum disease. The wide umbrellas of gum disease can be gingival or periodontal in origin with the main etiology being, the altered microbial colonies in the plaque due to poor oral hygiene (Sarbeen and Gheena, 2016; Manohar and Abilasha, 2019). On analysing the frequency of visit to the dentist, most of the participants affirm that it has been more than a year since they visited the dentist. Dentists not only enable the creation of awareness to maintain good oral health, but dental records can also be used as forensic evidence (Palati et al., 2019).

The current study has opened our eyes to the level of awareness about oral health care among the Tiruvannamalai population. It is the responsibility of Dentists and other oral health care workers to create awareness and follow these patients to improve oral health and in turn, improve systemic health too.

CONCLUSION

Within the limitations of the study, we can conclude that oral health knowledge among the Tiruvannamalai population was considerably lower than what would be expected. Therefore, we suggest and recommend that dentists and other oral health care workers be encouraged to provide the necessary awareness in order to improve the oral health of the individuals in this locality.

Conflict of Interest

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

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