

## Knowledge, Attitude and Practices regarding Oral Hygiene Maintenance Among Private Security Persons

Research Article

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### Abstract

**Objective:** Oral hygiene knowledge contributes to good oral health, but unless attitudes and habits are developed and put into practice, little will be gained. It is important to review the knowledge, attitude, and practices of the oral health of private security persons, with the objectives of inculcating healthy life style practices to last for a lifetime. Individuals who hold favorable oral health related beliefs over time have better oral health in their later years than those who do not. This implies that changing beliefs should result in changes in behaviors. The aim of this study was to assess the Knowledge, Attitude and Practices regarding Oral Hygiene Maintenance Among Private Security Persons and planning the treatment needs accordingly to enable these group of people to lead a better healthier life.

**Methods:** A descriptive cross sectional survey was conducted in the self-administered questionnaire that assessed the knowledge, attitude and practices on oral hygiene maintenance among 100 private security persons residing in Chennai.

**Results:** Most of the private security persons had knowledge regarding cleaning their teeth and tongue except about usage of interdental aids and mouthwashes. Most of them cleaned their teeth using tooth brush and tooth paste.

**Conclusion:** The toothbrush with toothpaste is the most common oral hygiene aid used for cleaning teeth among the private security persons and most of them brushed their teeth daily in the morning. As knowledge about oral hygiene are inadequate for private security persons, there is a need to provide awareness about basic knowledge on oral hygiene and practices. This will prevent them from further oral diseases and any other health related problem. Effective oral health education and promotion programs are needed to improve oral health knowledge, attitude, and practices of the private security persons. Oral health education is a powerful tool in improving the oral hygiene knowledge and toothbrushing, which can lead to better plaque control and subsequent improvement in gingival health. Hands-on training like toothbrushing drill, flossing and rinsing can act as a motivational tool in promotion of oral health.

**Keywords:** Oral Hygiene Maintenance; Private Security Person; Tooth Brush; Tooth Paste; Floss; Dental Disease; Knowledge; Attitude; Practices; Brushing.

### Introduction

Oral health is essential to the general well-being of an individual and relates to the quality of life. Current mechanical and chemotherapeutic approaches to oral hygiene aim to modify the oral microflora to promote healthy periodontal and dental tissues. Current oral hygiene measures, appropriately used in conjunction with regular professional care, are capable of virtually preventing dental caries and other periodontal disease. Toothbrushing and

flossing are most commonly used, although interdental brushes and wooden sticks can offer advantages in periodontally involved dentitions. Chewing sugar-free gums as a salivary stimulant is a promising caries-preventive measure. Despite new products and design modifications, mechanical measures require manual dexterity and cognitive ability. Chemotherapeutic supplementation of mechanical measures using dentifrices, mouthrinses, gels and chewing gums as delivery vehicles can improve oral hygiene [1].

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**Received:** April 30, 2021**Accepted:** August 30, 2021**Published:** September 05, 2021

**Citation:** Shebi S, T. Anandhi, M.P. Santhosh Kumar. Knowledge, Attitude and Practices regarding Oral Hygiene Maintenance Among Private Security Persons. *Int J Dentistry Oral Sci.* 2021;8(9):4312-4316. doi: <http://dx.doi.org/10.19070/2377-8075-21000877>

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Oral diseases has been a persistent public health problem globally, with almost every individual experiencing poor oral health at least once in their life time [2]. Oral health is a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal disease, tooth decay and tooth loss, and other diseases and disorders that affect the oral cavity [3, 4]. Oral health affects the general health, well-being, education and development of children and their families [5], and diminishes the quality of life [6, 7]. Chronic oral infections can pose a risk for diabetes, cardiovascular diseases like stroke, respiratory diseases, low birth weight, and preterm births [8, 9].

Oral conditions affect 3.9 billion people globally; the global burden of which increased 20.8% from 1990-2010 [10]. Untreated dental caries in permanent teeth was the most prevalent condition followed by severe periodontitis and untreated caries in deciduous teeth [11]. Oral disease burden is significantly higher among poor and disadvantaged population with an increase in developing countries [12]. Globally, poor oral hygiene occurring due to increase in plaque and calculus deposits with increasing age have been reported among children and adolescents [13]. India, sixth biggest country by area is the second most populous country. Factors contributing to the steady rise in prevalence of periodontal disease include poor oral health awareness. Oral health knowledge is considered to be an essential prerequisite for health-related behavior. Although only a weak association exists between knowledge and behavior in cross-sectional studies, there are studies that establish an association between knowledge and better oral health [14].

Oral health is significantly related to oral health behavior and their knowledge, but unless attitudes and habits are developed and put into practice, little will be gained. It is important to review the knowledge, attitude, and practices of the oral health of private security persons, with the objectives of inculcating healthy lifestyles practices to last for a lifetime. Individuals who hold favorable oral health related beliefs over time have better oral health in their later years than those who do not. This implies that changing beliefs should result in changes in behavior [15].

A security guard (also known as a security officer or protective agent) is a person employed by a private party to protect the employing party's assets (property, people, equipment, money, etc.) from a variety of hazards (such as waste, damaged property, unsafe worker behavior, criminal activity such as theft, etc.) by using preventative measures. Security guards do this by maintaining a high-visibility presence to deter illegal and inappropriate actions, looking (either directly, through patrols, or indirectly, by monitoring alarm systems or video surveillance cameras) for signs of crime or other hazards (such as a fire), taking action to minimize damage (such as warning and escorting trespassers off property), and reporting any incidents to their clients and emergency services (such as the police or paramedics), as appropriate [13]. A security guard also needs knowledge and awareness on dental caries as they have long working hours and they have odd timing to do their duties. Many have poor knowledge on dental caries status as they think that oral hygiene is not important. The aim of this study was to assess the Knowledge, Attitude and Practices regarding Oral Hygiene Maintenance Among Private Security Persons and planning the treatment needs accordingly to enable these group of people to lead a better healthier life.

## Materials And Methods

A questionnaire was distributed among 100 private security persons residing in Chennai and were asked to fill them and return. A total of 15 questions were included regarding the oral health practices. Questionnaire was explained whenever necessary, and the participants were given assurance regarding confidentiality of their responses and were requested to mark their answers and complete it individually. Data collected were statistically analyzed and results obtained.

The variables information that was gathered included the following:

**Socio-demographic characteristics:** Information was gathered about age (years), gender, type of family, total number of household members, annual household income in Indian National Rupees, grade/class of study and guardian's occupation.

**Knowledge, perceptions and practices regarding oral health and hygiene:** Participants' knowledge was gathered about tooth cleaning; brushing and dental problems as well as questions were asked for practices of oral health. Questions were asked to ascertain oral health and hygiene including self-perceived oral health, and their frequent visits to dentists. Perception on impact of oral health on daily activities and information on oral hygiene practices were also gathered.

**Eating patterns and oral health utilization:** Information about the consumption of food items including fresh fruits, carbohydrates and sugars, semi-solid sugar-based food, sugar-based liquids and sugar-based chewing gum were gathered. Oral health utilization was also assessed. Private security persons knowledge, attitude and practices was assessed by using a questionnaire which included the following:

1. Do you clean your teeth?
2. Do you clean your tongue?
3. Do you use fluoride containing toothpaste?
4. Do you think dental problem can affect general health?
5. How often do you clean your teeth?
6. What type of tooth brush do you use?
7. Which technique do you use for brushing?
8. When do you change your tooth brush?
9. Do you rinse your mouth after eating?
10. Do you use a mouth wash?
11. Do you use floss to clean in between your teeth?
12. How would you describe the health of your teeth and gum?
13. Have you ever noticed bleeding in your gums?
14. Have you ever got your teeth cleaned professionally?
15. How often do you visit a dentist to clean your mouth?

## Results

Table 1 represents the responses of the private security persons. 92% of them cleaned their teeth daily, 57% of the security persons used to clean their tongue, 5% used mouth wash, 34% rinsed their mouth after eating and 81% of the people used fluoride containing toothpaste. 92% of them cleaned their teeth once daily, 5% of them cleaned twice a day and 3% of them cleaned

their teeth occasionally [Figure 1]. 49% of them used soft type, 30% used medium type and 21% used hard type of tooth brush [Figure 2].35% changed their tooth brush once in three months, 49% changed every six months and 16% changed only once a year [Figure 3].94% of the participants visited the dentist once in two year or more, 4% visited once a year, and 2% visited once in six months [Figure 4].

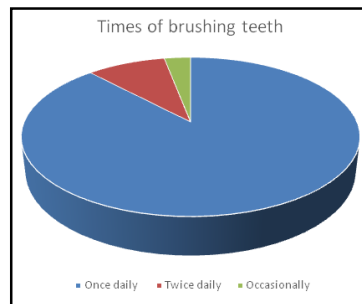
### Discussion

In the present study, security guards demonstrated moderate amount of knowledge between oral health and general health. This finding is in agreement with that of a study conducted by Khan et al [16]. In the present study, most of the security guards knew at least the basicknowledge of brushing teeth, cleaning tongue and rinsing mouth after eating. But knowledge regarding

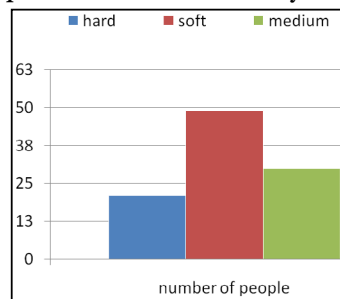
**Table 1. Responses to questionnaire by the participants.**

	Number of people who clean their teeth daily	Number of people who cleans their tongue	Number of people using mouth wash	Number of people who rinse their mouth after eating	Number of people using fluoride containing tooth-paste	Knowl- edge about dental health	Knowl- edge about interdental aids	Number of people who noticed bleeding on their gums	Those who got their teeth cleaned professionally	Those who clean their teeth twice daily
Yes	92	57	5	34	81	47	3	30	24	5
No	8	43	95	66	19	53	97	70	76	95

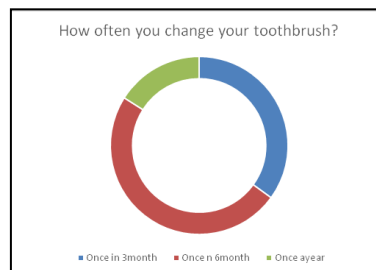
**Figure 1. Frequency of tooth brushing by the participants.**



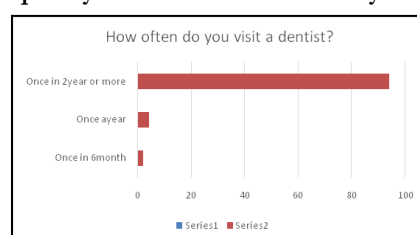
**Figure 2. Types of toothbrush used by the participants.**



**Figure 3. Frequency of changing toothbrush by the participants.**



**Figure 4. Frequency of visits to the dentist by the participants.**



use of fluoride containing toothpaste, interdental aids, and harmful effects of soft drinks was low. These results are in agreement with other study [17]. This could be the result of the oral health knowledge that they had acquired either at primary school level or through the media. Adequate knowledge on the causes, prevention, and signs of dental caries and gum disease depicts that security guards can retain and recall the acquired knowledge as they grow. Similar to the findings of this study, a high proportion of security guards with adequate level of knowledge on cigarette smoking as a cause of oral cancer were also reported in Tanzania [18], Kenya [19], and UK [20].

In our study, only 30% security guards visited dentist when they had dental pain. This is similar to the result of Kikwilu et al.'s study [18], whereas the study results of Carneiro et al [21] are not in agreement with our study. Gómez et al [22] in their report, highlight the importance of early detection as a cornerstone to improve survival. Majority of the security guards thought that dental treatment is costlier and painful, which might be due to fear. It has been suggested that the modification of attitude allows a change in the behaviour, which further causes attitude modification in most of the security guards who complained that dental treatment was painful and costly.

Certain oral diseases, such as chronic periodontitis and caries, that are considered as public health problems may be alleviated by effective and regular self-tooth brushing. The study results revealed once-a-day tooth brushing practiced by majority of the participants. Similar results were obtained in other study [23]. Tooth brush and tooth paste were commonly used for brushing among the study population, which is in agreement with the findings of other study [24]. In the present study, security guards did not use any interdental aids, whereas most of the study participants in Tanga Region, Tanzania used interdental aids, mainly tooth pick, to maintain their oral hygiene [25].

In the present study most of the private security persons had the basic knowledge of oral hygiene measures, as 92% had awareness on cleaning teeth, 57% had awareness on cleaning their tongue and 81% had awareness on using fluoride containing toothpaste. However only 34% had awareness on rinsing mouth after eating, and cleaning mouth professionally. Only 3% had awareness on interdental aids. Hence, more awareness has to be created in private security persons to ensure oral hygiene health measures.

A Knowledge, attitude and practices [KAP] survey can measure the extent of a known situation; confirm or disprove a hypothesis; provide new tangents of a situation's reality. It enhances the knowledge, attitude, and practices of specific themes; identify what is known and done about various health-related subjects [26-29]. It establishes the baseline (reference value) for use in future assessments and help to measure the effectiveness of health education activity ability to change health-related behaviors. It suggests an intervention strategy that reflects specific local circumstances and the cultural factors that influence them; plan activities that are suited to the respective population involved [30-32].

Good oral hygiene keeps teeth free from dental plaque buildup, staves off cavities and fights bad breath. A healthy diet that's low in sugary foods is also an essential part of good oral hygiene. Regular dental visits every six months allow the dentist or dental hygienist to provide oral hygiene instructions. Dentist may rec-

ommend oral hygiene products that cater to the mouth's unique needs [33]. Oral health education is a powerful tool in improving the oral hygiene knowledge and practices, which can lead to better plaque control and subsequent improvement in gingival health. Hands-on training like toothbrushing drill, flossing and rinsing can act as a motivational tool in promotion of oral health. Reinforcement of oral health information is of utmost importance and is the key to success of any oral health education programme [34].

The limitation of this research was that it was evaluated on self-reported data and the survey was done only in a particular area therefore the findings cannot be generalized. As knowledge about oral hygiene are inadequate for private security persons, there is a need to provide awareness about basic knowledge on oral hygiene and practices. Based on this study it is recommended to establish oral health programs for private security persons that addresses oral health promotion and diseases.

## Conclusion

The toothbrush with toothpaste is the most common oral hygiene aid used for cleaning teeth among the private security persons and most of them brushed their teeth daily in the morning. As knowledge about oral hygiene are inadequate for private security persons, there is a need to provide awareness about basic knowledge on oral hygiene and practices. This will prevent them from further oral diseases and any other health related problem. Effective oral health education and promotion programs are needed to improve oral health knowledge, attitude, and practices of the private security persons.

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