

# Awareness Regarding Oral Health & COTPA Act - 2003 among Karnataka State Reserve Police (KSRP) Stationed In Tumkur; a Brief Report

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## ABSTRACT

Oral health is an integral part of general health, and police personnel who are from a varied work environment are often exposed to high physical strain & mental stress. This complicates their social life which inadvertently has a derogative effect on their general health & oral health. Awareness among police personnel regarding the COTPA act 2003 is deemed to be important as certain regulations are to be implemented by them.

**Methodology:** A cross-sectional, questionnaire study was conducted among the KSRP stationed in Tumkur. Questionnaire consisted of 15 questions regarding awareness & eight questions regarding oral health practices.

**Results:** 43.3% rated their oral health as good & 70% brushed once daily. 77% officers reported they were aware that tobacco & its products cause oral cancer but 50% of the officers reported that they were not aware of the COTPA Act 2003.

**Conclusion:** There is a wide gap between awareness & practice regarding oral health among police personnel.

**Keywords:** Oral Health, COTPA ACT 2003, Police personnel, Awareness, Practice.

## INTRODUCTION

Health is a common theme among most cultures and is a fundamental human right without distinction of sex, race, religion, political belief, and economic and social conditions. Oral health is an integral part of general health and is governed by various factors such as lifestyle, dietary habits, socioeconomic conditions, occupational environment. <sup>[1]</sup>

People's oral health status can affect them physically and psychologically and influence how they enjoy their life, how they look, speak, socialize and chew, taste, and enjoy their food. It also effects their self-esteem, self -image and feeling of

social wellbeing. Hence it is one of the determinants of quality of life. <sup>[1]</sup>

Oral diseases afflict humans of all ages and in all regions of the world, practically no individual in the course of their lifetime escapes from dental diseases. <sup>[2]</sup>

Occupational environment plays a major role in an individual's health. The health hazards get more severe depending on the intensity of the profession. <sup>[3]</sup> This fact is true pertaining to police personnel, who provide continuous service to the civilians. Policing is a complex occupation and there is a wide range of intense activities involved in police work, hence

there are many health and safety issues in pursuing policing as an occupation. [4]

Owing to the complexity of policing, risks and exposures may vary within forces, between forces and internationally. The fact that police personnel are engaged in 24 hour duty in many situations forces them to neglect health and especially oral health. The place that is occupied by the police in a State is similar to the place occupied by the military in a Nation. Oral health of recruits is a subject of many epidemiological studies & has shown higher prevalence of dental diseases. [5,6] It is the moral responsibility of the society to safeguard the general and oral health of the guardians of the law. Thus, it was important that research be done on the oral health issues of police officers in order to identify hazards and ways to reduce risk. [1]

No epidemiological baseline data has been reported on the oral health status of police personnel of Tumkur city. This information is important for establishing priorities and determining the type and quality of prevention and treatment services required, and the type of personnel required to provide them.

Hence, the objective of the study was to assess the oral hygiene practices, oral health & COTPA Act regulations awareness and treatment needs of police personnel among the Karnataka State Reserve Police and to suggest measures to improve the present oral health status.

## METHODOLOGY

A cross-sectional questionnaire study was conducted in August 2018 among 60 male officers of Karnataka State Reserve Police, 12<sup>th</sup> Battalion. Prior permission was obtained from the Superintendent of Police & Institutional Ethical Committee.

A pre-tested, closed ended questionnaire with 23 questions was framed to check the awareness of their oral health in local language (Kannada). First eight questions were framed to know their practices towards oral health with options accordingly and another 15 questions were

designed to know their awareness regarding oral health using responses in 3 point likert scale.

The study was explained prior & assurance of anonymity was given. All the police personnel voluntarily participated in the study & the filled up forms by the officers were collected & analyzed using descriptive statistics.

## RESULTS

The study consisted of 60 male officers aged between 34 – 59 years, mean age being 46.2 years. Table 1 depicts the questions related to practice of oral health, in which 43.3% rated their health of the teeth as good & 70% brushed once daily. 91.2% said they brush their teeth using paste & brush & in the last one year, 36.6% officers had experienced tooth ache either many or few times but unfortunately 76.6% said they had not visited a dentist in the last one year. The reasons being not experiencing any pain (56.6%), high treatment costs (30%), fear of treatment (10%) & non availability of dentists (3.3%) respectively. When the question was asked regarding the deleterious habits 51.6% reported using one or the other forms of tobacco products and in that 26.6% reported using smokeless form i.e., guthka and among 51.6% of total tobacco consumers, 34.3% said the frequency of use as once daily & 31.2% said many times a day.

Table 2 shows awareness of officers regarding oral health, in which 73.3% said oral health is a part of general health but 30% were not aware of the fact that few symptoms of systemic diseases appear in oral cavity, & 36.6% were not aware that maintaining milk teeth is essential to maintain the permanent teeth. 75% were aware that dental caries can be prevented & 25% of them were unaware that it can be done by brushing, 51% were unaware of the beneficial effects of fluoridated tooth pastes & 66.6% were unaware of the fact that caries can spread from mother to child, 33.3% were unaware that caries is caused by consuming sweets more frequently. 43.4%

were unaware that thumb sucking, lip biting & tongue thrusting habits in children cause malocclusion and dentist can prevent losing teeth due to aging, as well as treat cleft lip/palate. 28.3% of the officers mentioned

the need for maintaining the artificial dentures & 80% of them reported getting oral health information is important to have good oral health.

**Table 1: Questions related to practice for oral health**

Sl No	Questions	Responses in Percentage				
		Very good	Good	Its ok	Not Good	Don't Know
1	How is the health of your teeth /Gums?	8.3	43.3	33.3	15	0
		70	30	0		
2	How many times you brush daily?	Once	Twice	Thrice		
		91.6	0	8.4	0	0
3	What do you use to brush the teeth?	Brush & Paste	Tooth powder	Neem Stick	Finger	Brick
		30	6.6	46.6	16.6	
4	How frequently you have experienced Tooth ache in last one year?	Once	Twice	More than two times	Not visited	
		10	6.6	6.6	76.6	
5	How frequently you have visited the dentist in last one year?	Fear of treatment	No Dentists available	More treatment costs	Didn't get pain	
		10	3.3	30	56.6	
6	Which one of these Tobacco Products you use?	Bidi	Cigarette	Guthka	Pan Masala	Don't use any
		51.6	5	15	26.6	6.6
7	If yes, How many times do you use? N = 32	Monthly once	Weekly Once	Few times in a Week	Daily once	Many times in a day
		12.5	12.5	9.4	34.3	31.2

**Table 2: Awareness about Oral Health**

Sl No	Questions	Responses in Percentage		
		Yes	No	Don't Know
1	Is oral health is an integral part of general health?	73.3	6.4	20
2	Do symptoms of few systemic diseases appear in oral cavity?	56.6	10	30
3	Does protecting health of milk teeth necessary for permanent teeth?	60	3.3	36.7
4	Can we prevent dental caries?	75	1.6	23.3
5	By brushing our teeth can we prevent dental caries & gum diseases?	71.6	3.4	25
6	Will using fluoridated tooth paste prevent caries?	31.6	18.3	51.6
7	Will decayed tooth spreads from mother to child?	26.6	8.3	66.6
8	Will consuming sweets more frequently cause dental caries?	56.6	10	33.3
9	Will consuming tobacco cause oral cancer?	76.6	3.3	20
10	Do thumb sucking, lip biting & tongue thrusting habits in children cause malocclusion?	50	6.6	43.4
11	Can dentist prevent losing teeth due to aging?	40	16.6	43.4
12	Does maintaining artificial dentures are necessary?	28.3	6.7	40
13	Will the dentist treat cleft lip / Palate?	53.3	6.7	40
14	Are you aware of COTPA 2013 regulations?	50	6.7	43.3
15	Does getting oral health information is important to have good oral health?	80	0	20

### Key Observation of the present study:

Though 77% officers reported that they were aware that tobacco & its products cause oral cancer, 51% among them still use one or the other forms of tobacco showing the gap in awareness & the practice.

50% of the officers reported that they were not aware of the COTPA Act 2003 which is unfortunate as police personnel are expected to enforce & implement the law in public & this shows wide lacunae in practice.

### DISCUSSION

Assessment of oral hygiene practices is the first step in analyzing oral health status. The oral hygiene practices of the police personnel revealed that 91.2% used tooth brush and toothpaste, and 70% cleaned their teeth once daily. These parameters were assessed in National Oral Health Survey and Fluoride Mapping 2002 (Karnataka) [7] which reported only 35.1% respondents used tooth brush which is very low compared to the present study. It also reported 89.3% cleaned their tooth once

daily which was similar to the present study. Similar results were demonstrated in a study conducted by Naveen et al [8] among police personnel of Mysore city which reported that 96% of the study population used tooth brush and tooth paste, and 81.4% brushed once daily.

In National Oral Health Survey and Fluoride Mapping 2002 (Karnataka) [7] 12.7% respondents reported gum disease and 43% reported tooth decay as a common oral problem. In contrast to National Oral Health Survey 2002 (Karnataka) [7] where 55.8% respondents were unaware of causative factors and 60.3% were unaware of preventive measures, in the present study 82% were aware of the causative factors & 71.2% were aware of preventive measures related to oral health problems. This may be due to the educational background of the police personnel.

In the present study, police personnel were asked if they had any oral health problem in last one year and whether they had visited a dentist, 36.6% had dental caries but 76.6% of them have not visited the dentist. This was similar to Singh A et al [1] & National Oral Health Survey 2002 (Karnataka) [7] where 82.9% complained of tooth decay & only 34.6 had visited dentists. Lack of pain, high treatment costs, fear of treatment & non availability of dentists were reported as obstacles for non utilization of the dental services by police personnel in the present study. This suggests that the police personnel delayed the utilities of dental services unless they had problems such as pain and gum swellings. This reflect the under utilization of clinical facilities.

An assessment of oral health revealed that 81% subjects suffered from periodontal disease which was similar to the study conducted by Naveen N et al, [8] Sohi R et al [9] & Basavraj P et al. [10] The high prevalence of periodontal disease can be attributed to the irregular work shifts, high prevalence of adverse habits and lack of concern on oral health in particular.

In the present study, 77% were aware that using tobacco & its products

causes oral cancer compared to 5.8% in a DCI survey 2002, [7] but unfortunately 51% were still using one or the other forms showing a wide gap in awareness & practice. These findings present an opportunity to explore and understand that self motivation along with repeated health education & promotion is essential to reduce the gap.

Due to their nature of work, police personnel tend to neglect their oral health. Service approach along with educational approach will shift the responsibility for health from the formal health care system to individuals, communities and decision makers at all levels of society.

#### **Post survey:**

Staff from various departments of our college educated the officers regarding oral diseases and treatment modalities pertaining to their specialty. Proper brushing technique was demonstrated in five groups. A complete oral health checkup was conducted for the officers and identified personnel with oral health problems were referred and treated in respective departments on the same day.

#### **CONCLUSION**

The sample of police personnel provides a unique opportunity to study a larger uniformed population from diverse socioeconomic and geographic backgrounds.

The present study showed, though awareness regarding oral health is adequate there is a wide lacuna in their practice among police personnel especially with regarding consumption of Tobacco and COTPA Act 2003.

These findings present an opportunity to explore and understand the cause to neglect oral health in particular.

#### **Recommendation:**

- Health education and promotion, with its key concepts of equity and equality, empowerment and advocacy, offers an

approach to improve both general and oral health.

- The generalized outlook of this occupation makes it necessary for the Government to build oral health care clinics equipped with efficient workforce, dedicated for the police personnel and regularly organize treatment camps at various police stations.

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