



# COMPARISON OF ORAL HEALTH KNOWLEDGE, ATTITUDE, PRACTICES AND ORAL HYGIENE STATUS OF CRPF OFFICIALS IN SRINAGAR, KASHMIR, INDIA.

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## Abstract

**Purpose:** The objective of this study is to determine Oral health Knowledge, Attitude, Practices and Oral hygiene status of CRPF officials in Srinagar, Kashmir, India.

**Methods:** A cross sectional questionnaire survey was done among 321 Central Reserve Police Force (CRPF) officials who voluntarily participated in Srinagar, Kashmir. A questionnaire consisting of 21 questions was used to check knowledge, attitude and practices. Clinical examination was done to assess the oral hygiene status (Simplified Oral Hygiene Index).

**Results:** Out of 321 officials majority of people (57.63%) were aware that tooth brushing helps in preventing caries and gum diseases, only 26.48% people were aware about the role of fluorides and fluoridated tooth paste in prevention of dental caries. 80.37% of people think that regular visit to dentist is necessary. 84.42% people use tooth paste with brush for cleaning of teeth, 4.98% use tooth powder with fingers and 10.59% use tooth powder with brush. 62.62% people change their brush due to fraying of bristles. 27.73% of people have never visited a dentist so far.

**Conclusion:** CRPF officials' knowledge about gum diseases, use of fluoridated toothpaste and oral hygiene aids was found to be low. Among the total number of officials recorded, 82% had poor and 18% had fair oral hygiene status. None of them had good oral hygiene status. Most of the CRPF officials did not have knowledge about the causes and the prevention of dental diseases.

**Key words:** CRPF trainees, Correlation, Oral health knowledge, attitude.

## Introduction

Health is a theme in most cultures and is fundamental human right without distinction of race, religion and political belief, economic, and social condition (1). The work environment constitutes an important part of man's total environment, so health to a large extent is affected by working condition. Though several types of environment exist, it is the physical environment that plays an important bearing on health (2). Oral health is an integral part of general health, and it is one of the determinants of the quality

of life. Oral health and general health are determined by various factors such as life style, dietary habits, socioeconomic conditions, occupational environment, and etc (3). Oral health is concerned with maintaining the health of craniofacial complex, the teeth, and gums as well as the tissue of face and head that surrounds the mouth. It has been found that loss of teeth and deterioration of oral tissue substantially reduces the quality of life (1).

Military is to defend the country from external threats as well as to maintain the internal peace of community (4). Police personnel are law enforcers with busy work schedule. The nature of job is such that they are subjected to physical, mental and emotional stress. The irregular shifts in their work schedule leads to neglecting (skipping) of their regular diet and indulging into regular habits. The work shifts also deprive them of their routine sleeping pattern and social activities (5,6).

The Central Reserve Police Force (CRPF) is the largest of India's Central Armed Police Forces. It functions under the aegis of Ministry of Home Affairs (MHA) of the Government of India. The CRPF's primary role lies in assisting the State/Union Territories in police operations to maintain law and order and contain insurgency. It came into existence as the Crown Representative's Police on 27 July 1939. After Indian Independence, it became the Central Reserve Police Force on enactment of the CRPF Act on 28 December 1949 (7).

The rigour of discipline –physical, mental and social- insisted upon the military personnel is also true in case of police. One of the aims of the military training given to soldiers is to achieve the required physical and mental fitness for the mission to be carried out. This requires sufficient general and oral health for training and taking part in exercises, maneuvers and deployments (8).

For years, the police profession has been ranked among the top five of most stressful occupations. The constant risk of uncertainty and tension which are inherent in law enforcement, the vast amounts of human suffering, and violence can lead susceptible individuals to stress, anxiety, depression and alcoholism. Many studies have shown relationship of stress factors to periodontal diseases (9).

All the above factors might have an effect on general as well

as oral health. It is the responsibility of society to safeguard the health of their defenders. Literatures regarding the oral health situation of these police people are not available. A clear picture of oral diseases will help us organize preventive and curative programs in containment of oral disease (10). This information is very important for establishing priority and determining the type and quantity of prevention and treatment services required.

The target population on which we conducted this study was police of Central Reserve Police Force, Srinagar, Kashmir. This study was thereby conducted to determine Oral health Knowledge, Attitude, Practices and Oral hygiene status of CRPF officials in Srinagar, Kashmir, India.

## Materials and Methods:

The present study was conducted among 321 CRPF officials who voluntarily participated in the study. Convenience sampling was used to collect the sample based on subject present during the conduction of study. The subjects were in the age group of 20-60 years.

Ethical clearance was obtained from Institutional Review Board of Teerthanker Mahaveer University. Permission to conduct the study was obtained from commanding officer as well as medical officer of CRPF Srinagar unit.

A cross sectional questionnaire survey consisting of 21 questions was used to check knowledge, attitude, and practices. Clinical examination was done to assess the oral hygiene status of subjects using Simplified Oral Hygiene Index. Following instruments were used to conduct clinical examination: Plane mouth mirror, Explorer, Tweezers, Kidney trays, Chip blowers, Cotton holders, Disposable mouth masks, Disposable gloves, Sterilized cotton and gauze pieces, Towels, and Soap.

A single trained examiner who was calibrated conducted all the examinations. A well-trained assistant recorded the data. The questionnaires were distributed and asked to be completed within half an hour.

Knowledge, attitude and practices scores were calculated separately. The significance level was set at  $P < 0.05$ . Statistical analysis was performed using the Statistical Package for Social Sciences software version 18.

## Results:

Oral health knowledge:

Data on the oral health knowledge of participants is as it follows: the majority of participants (57.63%) were aware that tooth brushing helps in preventing caries and gum diseases. Only 26.48% of subjects were aware about the role of fluorides and fluoridated toothpaste in the prevention of dental caries. 54.83% of subjects were aware that tobacco consumption leads to oral cancer.

Oral health attitude:

80.37% of participants think that regular visit to dentist is necessary

(Table 1). 54.83% of subjects believe immediate replacement of missing natural teeth is necessary. 90.34% of participants agreed that gutkha chewing and smoking is a bad habit.

Oral health behavior:

52.34% of subjects brush once a day, and 44.86% of subjects brush twice a day. 52.02% of participants brush once (in morning only) and 42.06% of participants brush twice a day (morning before meals & night after meals). 84.42% of subjects use toothpaste with brush for cleaning of teeth, 4.98% of subjects use toothpowder with fingers, and 10.59% of subjects use tooth powder with brush. 62.62% of participants change their brush due to fraying of bristles. Data regarding the oral health status of subjects are presented in Table 2 and Table 3.

## Discussions

The present study was aimed to gather epidemiology data regarding oral health knowledge, attitude, and behavior among CRPF officials of Srinagar, Kashmir and to measure oral hygiene status.

In present study, majority of officials were not aware whether they use fluoride-containing dentrifices, similar to findings of Abhinav Singh (11) who conducted a study to assess the oral health knowledge, attitude & practice among NCC cadets in South India.

A majority of officials did not know whether dental floss help in preventing dental caries and gum disease. However, most of the officials (51.71%) knew that tooth brushing prevents dental caries. Lack of knowledge regarding dental floss and gum diseases can be attributed to the low level dental education of CRPF officials.

Peterson et al, in a study conducted among 12-year-old urban and rural school children in southern Thailand, concluded that consumption of sweets is an important predictor of high caries experience (12). In present study 76% of officials reported consumption of sweets 1-3 times a day, 11.76% consumed 4-6 times a day, and only 12.77% do not consumed sweets at all. Similar findings were reported by Abhinav Singh, who conducted a study to assess the oral health knowledge, attitude & practice among National Cadet Corps in South India in which 49% of cadets reported consumption of sweets very often and 14.4% reported its consumption all the time (11).

The present finding indicates lack of knowledge of the most of the officials about the causes and prevention of dental disease. The present findings regarding oral health knowledge and attitudes are in line with those reported by Al-Hussaini et al (13), Christensen et al (14) and El-Qaderi and Taani (15). The result of the present study showed that officials appeared to be interested in receiving more information on a substantial number of different dental issues. A significant number of officials wanted further information, so it can be argued that officials had a positive attitude towards oral health.



Officials must be provided with oral health education along with physical and general health education. Prevention of oral disease is considered to be the most effective, acceptable and efficient method implicated to pave the way to oral health. Ideally, adults should be educated to prevent the initiation and progression of the spectrum of dental disease that they are likely to encounter throughout life.

### Conclusion:

CRPF official's knowledge about gum diseases and use of fluoridated dentifrices was found to be low. Officials' dental visits were frequent and their consumption of sweets was found to be very high.

The present study recommends that proper oral health education is required to improve attitude and behaviors of CRPF officials toward oral health. Health authorities should implement oral disease prevention and health programs for CRPF officials.

Table 1. Oral health attitude of CRPF officials in Srinagar, Kashmir, India.

Attitude related questions	Options	Frequency	Percentage
Regular visit to dentist is necessary	Yes	258	80.37
	No	30	9.35
	Don't know	33	10.28
Immediate replacement of missing natural teeth by artificial teeth is necessary	Yes	176	54.83
	No	21	6.54
	Don't know	124	38.63
Guthka chewing/smoking is bad habit	Yes	290	90.34
	No	26	8.10
	Don't know	5	1.56
Dentist care only about treatment & not prevention	Yes	251	78.19
	No	43	13.40
	Don't know	27	8.41
Treatment of toothache is important as any other organ in body	Yes	227	70.72
	No	28	8.72
	Don't know	66	20.56

Table 2: Oral health status of CRPF officials in Srinagar, Kashmir, India.

	<u>NUMBER</u>	<u>MINIMUM</u>	<u>MAXIMUM</u>	<u>MEAN</u>	<u>STANDARD DEVIATION</u>	<u>STANDARD ERROR MEAN</u>
<u>AGE</u>	321	20	59	36.2741	9.33071	0.52079
<u>DEBRIS INDEX</u>	321	0.83	3.00	1.9910	0.47339	0.02642
<u>CALCULUS INDEX</u>	321	0.66	3.00	1.8388	0.51218	0.02859
<u>OHI-S</u>	321	1.49	5.83	3.8298	0.89433	0.04992

Table 3. Oral hygiene index- simplified of CRPF officials in Srinagar, Kashmir, India.

	FREQUENCY	PERCENTAGE
<b>POOR</b>	264	82.24
<b>FAIR</b>	57	17.76
<b>TOTAL</b>	321	100

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