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Original Article

Oral Health Status of Health Care Workers in Tertiary Care Hospitals of Rawalpindi, Islamabad Pakistan

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ABSTRACT

Studies from all around the world have shown that healthcare professionals may encounter a number of obstacles to receiving dental care, which raises the prevalence of oral disorders in this population. In recent years, Pakistan has not done a national oral health assessment on the state of oral health among healthcare workers. **Objective:** To determine the oral health status of health care workers in tertiary care hospitals using Decayed, Missed, Filled tooth Index. **Methods:** Descriptive cross-sectional study was conducted utilizing a simple random selection and 385 healthcare workers between the ages of 20-50 years. Healthcare workers were assessed in tertiary care hospitals, and information on caries and gingival health was gathered. For the oral examination, the standards and procedures of the WHO were applied. **Results:** Only 9.8% of the respondents were healthy and mean DMFT score came out to be 3.28 ± 1.12. **Conclusions:** Healthcare workers in tertiary have unsatisfactory dental practices, poor attitude related to oral health and general lack of awareness about oral health.

INTRODUCTION

One of the most important assets, which someone may have is his health. Nowadays, it is understood that the importance of oral health to overall health is equal. According to the WHO, oral disorders are a risk factor for four major chronic diseases, including diabetes, chronic respiratory conditions, cancer, and cardiovascular issues [1]. In order to prevent tooth decay and gum disease, oral hygiene is the practice of keeping the mouth healthy and clean through brushing and flossing. It has been demonstrated that maintaining good oral hygiene can significantly help prevent oral illnesses [2]. Healthcare professionals (HCWs) closely monitor and record the patient's responses to food restrictions, medication modifications, and therapy schedules. The Multipurpose Health Worker is the frontline health worker for the prevention and treatment of communicable diseases, such as Malaria, Tuberculosis, Leprosy, and Water-Borne Diseases, in addition to environmental sanitation, the early detection and management of disease outbreaks, health promotion, and other related activities [3]. According to

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data from earlier studies, the majority of people only seek symptomatic and curative dental care. The attitude of a population toward their dentition is among the most crucial aspects that determines the oral health of that group [4]. We need to raise awareness of oral diseases and educate people about them in order to increase the abilities of healthcare professionals in oral health care. Healthcare professionals can assist in identifying general risk factors affecting dental health, determining health status and problems, discussing preventive measures, and educating patients about the need of replacing their toothbrushes on a regular basis. Dentists are crucial to preserving overall dental health [5]. It is believed that understanding oral health is a requirement for engaging in health-related behavior. Rural Indian communities, who make up more than 70% of the Indian population, have been proven to have lower levels of oral health awareness and practice than metropolitan communities [6]. Oral illnesses may cause functional impairment owing to pain, disruption of everyday routines, and loss of working hours, income, educational opportunities, and other social activities. They consequently have an impact on a person's total productivity and quality of life, which places a financial burden on society [7]. Oral health is seen as the state of health that makes it possible for a person to socialize without difficulty due to an active illness, discomfort, or humiliation that has an adverse effect on general wellbeing. Oral illness is one of the main public health issues, with a higher prevalence and a substantial societal impact. Knowledge of oral health is necessary to improve the oral health of a population [8]. According to reports from a different survey, an overwhelming majority (87%) of the nursing staff found performing mouth hygiene unpleasant. The residents' aversion to oral care was something the staff encountered frequently or always [9]. Furthermore, research indicates that oral diseases such dental caries and periodontal disease are more common in Saudis with special needs [10]. The purpose of this article was to determine the Oral health status of health care workers in Rawalpindi, Islamabad Pakistan.

METHODS

Healthcare workers of tertiary care hospitals in Rawalpindi, Islamabad, Pakistan were the subjects of this cross-sectional study. This study was carried out between December 2022 to May 2023. A straightforward random sampling approach was employed to choose the necessary sample from the identified tertiary care hospital. We utilized the WHO tool to compute the sample size and used a 50% prevalence because there are no statistics. There were 385 samples in all. All study participants received all study materials, including the study's goals, objectives, and justifications, prior to the start of the experiment. They also had to sign a consent document with full knowledge. Inclusion criteria Include Healthcare workers included male and female respondents aged between 20-50 years had permanent job among the health care professionals (HCWs) were nurses, paramedical staff physicians, specialists, and chemists. Exclusion criteria include healthcare workers having temporary job, psychologically ill patients, service less than 3 years, family dental history. The DMFT stands for total decayed, missed from caries, and permanently lost teeth. The distribution of the DMFT index values was as follows: Score 0 means a person is healthy or has no caries, score 1 means they have mild caries, score 2 means they have moderate caries, score 3 means they have severe caries, and score 4 means they have very severe caries. Skilled dentists conducted interviews with the participants using a customized questionnaire before recording and entering their responses in SPSS. New dentists were instructed on how to record the findings of an oral examination. The oral examination was performed with tactile stimulation and in natural light while the patient was seated in a school chair. For statistical analysis, SPSS version 26.0 was used. A descriptive analysis was conducted, and percentage and mean values were calculated.

RESULTS

This cross-sectional study was carried out on 385 respondents out of which 201 were male and 184 were females. Gender distribution is illustrated in Table 1.

Table 1: Gender Distribution of Respondents

Gender	Male	Female
	201(52.2%)	184 (47.8%)

Table 2 shows that 38 (9.8%) of those examined had code 1 and were in good condition, while 265 (68.8%) had code 2, 60 (15.5%) had code 3, only 5 (1.2%), and none had code 5.

Table 2: Decayed, Missed, Filled Tooth Index of Respondents

Decayed Missed Filled Tooth Index	Frequency (%)
Healthy	38(9.8%)
DMFT score 1- 7	265(68.8%)
DMFT score 8-14	60 (15.5%)
DMFT score 15-21	22 (5.71%)

Table 3 presents the Mean and Standard Deviation values for healthcare workers in tertiary care centers of Rawalpindi, Islamabad, which were calculated to be 3.28±1.12. Only 9.8% of the respondents were healthy, so it provides the necessity for immediate dental care among more than two thirds of the medical professionals.

Table 3: Mean and Standard Deviation DMFT Index

Frequency	Mean ± SD DMFT Index
385	3.28 ± 1.12

DISCUSSION

This cross-sectional study was carried out on 385

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healthcare workers. Out of which only 9.8% had satisfactory oral health status. This is first study carried out in Pakistan regarding oral health status of healthcare workers other than doctors. The present study found that majority 63.5% of the healthcare workers were aged between 20-40 years is in favor of study carried out by Aggnur *et al.*, Pratibha *et al.*, where majority of the respondents had aged between 20-40 years [11-13]. Present study found that only 9.8% had healthy gum is not in favor of study carried out by Singh *et al.*, and Nalini *et al.*, where 51.4%, 54.4% had healthy gums respectively. The difference might be due to difference in gender distribution, the present study had male 52.2% as compared to Singh study where 24.3% were male [14, 15]. Almost all of the healthcare workers in the survey concurred that ongoing training and instruction are necessary for optimal dental care. This finding is congruent with a study done in Menoufia university hospital, Egypt but inconsistent with a study done in India [16, 17]. Despite the great demand for restorative, prosthetic, and periodontal treatments, the results of the current study reveal that receiving necessary dental care is not given the priority it deserves. This result is comparable to some previous research result, it emphasizes the necessity of routine dental examinations and procedures to preserve good oral health [18]. In contrast to Thean *et al.*, study findings, the majority of study participants in the current study reported poor oral hygiene and sugar consumption as the primary causes of dental caries [19]. The results of a study on HCWs in Israel show that oral self-care habits were better than the results of the present study, this is the reason of poor oral health status of healthcare workers in our study [20].

CONCLUSIONS

More than 90% of the healthcare workers in tertiary care had dental caries, the reason is due to they have unsatisfactory dental practices, poor attitude related to oral health and general lack of awareness about oral health. The knowledge, attitude, and practices of health care professionals about oral health need to be improved. We recommend that dental professionals work together to create strategies that will help them reach their intended objectives.

Authors Contribution

Conceptualization: AP
Methodology: MFH, AP, HM, SAR, NR
Formal analysis: JK
Writing-review and editing: MFH, HR, HM, SIK

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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