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Oral Health Awareness Among Health Care Workers in Primary Health Centers of Khorda District, Odisha

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ABSTRACT
Primary health centers are an integral part of delivering health care in India. Health care workers could be very resourceful manpower if trained well in dental health care delivery to the vast majority of the rural population. To assess oral health awareness among health care workers in primary health care centers of Khorda District, Odisha. A cross-sectional descriptive study was conducted among primary health centers chosen by simple random technique from Khorda District. The sample included all health care workers from these centers. A self-administered, custom-designed proforma was used to collect data. 100% response rate was reported. All of them thought that dental health was an integral part of general health and tooth brushing was seen in 98.8%. Though adequate knowledge regarding and oral cancer was noted, use of tobacco was observed in 73.6%. Health Care Workers (HCWs) can be of great help in providing dental care to communities with limited access.
Keywords*: Oral Health, Primary health care workers, Dental health surveys*

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INTRODUCTION

Maintenance of health of an individual that involves both physical and mental aspects is multi-dimensional, multi-factorial, and is essential to leading a socially and economically productive life. It is influenced by varied factors such as lifestyle, habits, occupation, genetics, socio-economic status, and environment. With time, as a response to these challenges, traditional roles, and services of health care providers have expanded and changed into primary health care.[1]

Oral health is considered an essential component of general health and also a necessary constituent of community programs offering primary health care.[2] Lately, interest in addressing the unmet oral health needs has witnessed increased commitment. In this regard, health care workers at the primary health center (PHC) have a very important role to play in advising patients who attend primary health centers with various general health problems and also complaints about their oral health concerns for maintenance of oral health.

Primary healthcare in India is provided through a hierarchy of Sub-centers, Primary Health Centers (PHC), and Community Health Centers (CHCs).[3]

The state of Odisha has a total of 1212 PHCs of which Khorda district, has 63 PHCs.[4] Multipurpose healthcare workers (male and female) posted here are sensitive and accountable to meet the health needs of the community. In a country like India, where 70% of the population lives in rural areas, there is a deficiency of dental surgeons in providing oral healthcare services, these healthcare workers represent an untapped workforce and might play a key role in the delivery of oral health care.[5]

For these health care workers to advise others, they must have sufficient knowledge regarding oral health and proper oral hygiene measures. Thus, this study was directed at assessing oral health awareness

among health care workers in Primary Health Care centers of Khorda district, Odisha to assess their capability and sufficiency of oral health knowledge to advise patients.

MATERIAL AND METHODS

A descriptive, cross-sectional study was conducted in 20 randomly selected Primary Health Centers of Khorda district. All the health care workers working in these PHCs were included in the study. Thus, the total sample constituted of 348 subjects between the age of 24-55 years, of the 59 percent were males.
Institutional Review Board provided the Ethical clearance for the study. Before the commencement of the study, permission was obtained from hospital authorities and informed consent from participants of the study.
The feasibility of the study was assessed through a pilot study that was undertaken in a PHC to check the design of the final proforma. This PHC was not considered in the final study sample. The final proforma consisted of 32 items in a semi-structured questionnaire, which had questions regarding demographic information, oral hygiene practices, and knowledge regarding adverse habits and their daily encounter with patients with dental problems at the PHC.
All the health workers present on the day of examination at these PHC's were included in the study. Complete privacy regarding the responses was assured. Whenever necessary, the questions were explained in the local language. After completion, the data was tabulated using MS Excel and the results were presented using descriptive statistics.

RESULTS

348 subjects participated in the present descriptive cross-sectional study, with a 6:4 male to female ratio as depicted in Table no1.
Table II shows personal oral hygiene practices. 100% of the health care workers were in the habit of cleaning their teeth regularly. 98.8% of them used a toothbrush with toothpaste (84.6%) as a majority. 46% brushed their teeth once daily and 87% claimed to rinse their mouth after every meal.
Table III displays some of the questions asked and their responses. All of them believed that dental health is an essential part of general health. 48% had experienced some dental problem. 65% of the HCWs had visited a dentist some time or the other and for those who did not, lack of time was the main reason.
The majority of the health workers (97%) were aware of the harmful effects of tobacco despite which, 73.6 % of them used tobacco in some form or the other. (Table IV).
Table V shows responses about dentistry. 69% of HCWs felt that dental health care was available to the rural population. 92.2% of them had come across patients with dental problems at PHC at some time or the other, with the main reason being toothache (41%). When they came across such patients, 81% of the time they were referred to a dentist for treatment. The majority (95%) of the HCWs were eager to participate in programs and projects concerned with delivering dental care.

DISCUSSION

Literature review of the community-oriented primary health care and oral health shows the dominant and disease-oriented practice model with dental practitioners being the principle and most exclusive caregivers.[2] An alternative to this biomedical model of dental care is the use of health care workers as it translates health promotion principles into action at the community level. The WHO promotes the availability of dental care at PHC's, by which accessibility to dental care can be improved.
Although there are many studies conducted on health care providers, there are few reports on primary health care workers. As these PHC's are located at a distance from the district headquarters, patients in these regions tend to visit a PHC for their dental needs. So, in such a case, health care workers at these centers are of immense importance as they provide advice regarding oral health. In countries with limited dental manpower, the use of non-dental health care workers in the promotion of oral health can considerably contribute to improving oral health, and the adoption of a multidisciplinary team approach is highly recommended.[6,7]
The response rate in the present self-administered semi-structured questionnaire was 100%. Oral health care was given similar priority as that of general health which is similar to the studies conducted by Walid EI[6] and Jones H.[8]
100% of participants who cleaned their teeth every day believed that tooth brushing was the best oral hygiene measure. 46% of them brushed twice which is better than the study conducted among rural communities of Haryana by Tewari A[9] and Chinese adults by Lin HC et al[10] but is consistent with the studies in other developed countries.[1,11,12] Knowledge regarding tobacco as a cause of oral cancer was adequate among these health care workers which were found to be similar to the study conducted among nursing staff[6] and another study conducted by Sohn W et al[13] and study by Ni Riordain and

McCreary[14] showed increased knowledge regarding causes of oral cancer in contrast to that by Greenwood and Lowry[15] where only 50 % were aware of the etiology. However, interventions targeting quitting tobacco use among the HCWs are highly recommended.

Awareness regarding oral care practices was considerably good among the participants. In a study conducted by Sandhya *et al*,[16] most of the respondents knew the importance of daily oral hygiene measures in preventing dental diseases. In contrast, Yadav et al[17] & Najmunnisa et al[1] reported poor oral hygiene practices.

The most common complaint of the patients approaching health care workers for dental advice was toothache (41%) which was the common complaint encountered in similar studies conducted by Yadav et al,[17] Maunder PE[18] and Chanchal G.[19] When encountered with such patients, most of the time (81%) they referred to a dentist as they did not have technical knowledge nor the equipment facility to provide curative treatment. This finding was also similar to findings by Maunder PE.[18]

As observed in the previous studies[17,20,21,22] it was seen that 65% of the participants had visited a dentist.

Health care workers in PHCs often act as the primary contact for a vast majority of the population in rural India regarding their dental needs. Hence, training and sensitization of health workers are needed, so that an amalgamation of the above literature could be used to plan out the dissemination of dental knowledge. This untapped workforce could be used efficiently to tackle the dental needs of rural populations.

TABLE I: Demographic Characteristics of HCWs

Age groups	Males n (%)	Females n (%)	Total
24 – 35 years	56 (16)	52 (15)	108 (31)
36 – 45 years	87 (25)	52 (15)	139 (40)
46 – 55 years	63 (18)	38 (1)	101(29)
Total	206 (59.2)	142 (40.8)	348 (100)

TABLE II: Response of HCWs regarding oral hygiene practices

S. No	Questions asked	Responses n (%)
1.	Do you clean your teeth regularly?	348 (100)
2.	What do you use to clean your teeth? Toothbrush Finger	 344 (98.8) 4 (1.2)
3	Which agent do you use to clean your teeth? Toothpaste Toothpowder Others	 291 (84.6) 49 (14.2) 4 (1.2)
4	How many times do you clean your teeth? Once Twice More than twice	 188 (54) 160 (46) ----
5	Do you rinse your mouth after every meal? Yes No	 310 (89) 38 (11)
6	Do you use a toothpick to clean between teeth? Yes No	 128 (36.7) 220 (63.3)

TABLE III: Response of the health care workers regarding oral health.

Sl. No	Questions	Yes n (%)	No n (%)
1	Is dental health an integral part of general health	100(100)	-
2	Need for dental care due to dental concern	167 (48)	181 (52)
3	Visit to dentist	226 (65)	122 (35)
4	Reasons for not visiting dentist Lack of time Fear Other reasons	 62 (51) 14 (12) 46 (37)	 - - -

TABLE IV: Response of HCWs regarding adverse habits

Sl. No	Questions	Responses n (%)
1.	Use of Tobacco	
	Yes	256 (73.6)
	No	92 (26.4)
2.	Form of tobacco	
	Chewing tobacco/gutkha	105 (41)
	Betel nut/betel leaves	69 (27)
	Smoking	82 (32)
3.	Do you know these habits are harmful to health?	
	Yes	335 (95.3)
	No	16 (4.7)
4.	Do you know that consumption of tobacco might cause oral cancer?	
	Yes	320 (92)
	No	28 (8)

TABLE V: Response of HCWs regarding dentistry.

Sl. No.	Questions	Responses n (%)
1.	Do you feel dental services are available to the rural population?	
	Yes	240 (69)
	No	108 (31)
2.	Have you visited any dental camps?	
	a) Yes	160 (46)
	b) No	188 (54)
3.	Have you come across patients with dental problems in PHC ?	
	a) Yes	321 (92.2)
	b) No	27 (7.8)
4.	What type of dental complaints have you come across?	
	Toothache	143 (41)
	Tooth decay	80 (23)
	Swelling of jaws	7 (2)
	Others	118 (34)
5.	What do you suggest when you come across such patients?	
	Refer to dentist	282 (81)
	Advice medicine	38 (11)
	Refer to physician	28 (8)
6.	Would you like to participate in community dental programs and projects?	
	Yes	331 (95.1)
	No	17 (4.9)

CONCLUSION

The respondents had adequate knowledge regarding oral hygiene practice and could give primary advice to the patients they encountered with dental problems. Primary health care providers could play a pivotal role in the provision of preventive services. Thus, involving primary health care workers in dental health programs and projects will be helpful to reach out to dental health to a majority of the population.

ABBREVIATIONS

PHC - Primary Health Center
CHC – Community Health Center
HCW – Health Care Worker
WHO – World Health Organization

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