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Knowledge, Attitude & Practices of Multipurpose Health Workers towards Dental Health in Lucknow District

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Abstract

Introduction: Oral tissue forms an integral part of the human and is extremely vulnerable to disease as they are in intimate relation with the external environment and being constantly subjected to mechanical, chemical and bacterial interactions.

Aim: To assess the oral health knowledge, attitude, practices and oral health status & treatment needs among health care workers in Lucknow.

Materials & Methods: The aim of the descriptive cross-sectional study was to assess the knowledge, attitude and practices towards Dental Health. Multistage random sampling technique was used to allocate community health centers and primary health centers of Lucknow District. The study proforma had two parts: First part consisted of a predesigned and pretested questionnaire. The second part of the study proforma consisted of Extra – Oral examination.

Results: Most of the respondents of the age group 20-40 have good state of teeth (51.8%) while most of the respondents of the age group 41-60 and above 60 years have average state of teeth (42.3%, 61.5%). Associations between the dependent and independent variables of categorical (discrete) type were tested by chi – square ($\chi 2$) test. p values less than 0.005 was considered to be significant.

Conclusion: The study findings concluded that there was an evident gap between their knowledge and what they were really practicing.

Keywords: Oral Health, Health care workers, Toothbrush, Oral hygiene, Dental Caries.

Introduction

R Health continues to be a neglected entity despite continuous efforts for health promotion worldwide. “If wealth is lost nothing is lost but if health is lost everything is lost”. Always humans take health for granted and its value is understood when it is lost.1

Oral tissue forms an integral part of the human and is extremely vulnerable to disease as they are in intimate relation with the external environment and being constantly subjected to mechanical, chemical and bacterial interactions. The most common oral health complaints across the world are tooth decay, gum problems, bad breath etc.2

Oral health is important at all stages of life to keep teeth longer and stronger. The oral health concern of an individual is dependent on the attitude of a person. Oral diseases can be considered a public health problem due to their high prevalence and significant social impact.3

Today, medical field has become a joint venture of various healthcare workers. Doctors, nurses, pharmacists, technicians along work in collaboration to provide complete medical care to the patient and society.4 Health Care Workers (HCWs) closely monitor and observe treatments given, as well as note the patient's response to changes in medicines, therapy routines and dietary restrictions. Knowledge of oral health is considered to be a prerequisite for health related behaviour.5 Health workers knowledge, attitude and practices (KAP) toward oral health to a great extent influences the community as they can extend health education at the first contact in the community and hence should possess good oral health.6

A Cross- sectional survey was conducted with an aim to assess the knowledge, attitude and practices along with oral health status and treatment needs of healthcare workers working in various primary health centres and community health centres of Lucknow district.

Materials & Methods

The study was conducted among healthcare workers aged between 20-60 years working in PHC's and CHC's of Lucknow district. The aim of the descriptive cross-sectional study was to assess the knowledge, attitude and practices towards Dental Health.

All the required and relevant information regarding the Lucknow city was taken from district map of Lucknow7 (Census 2011). A list of PHC's, CHC's and subcentres located within the Lucknow was obtained from office of Chief Medical Officer. Ethical clearance was obtained from the institutional ethical committee.

Approvals were taken from the Director General Hospital and Ministry of health government of Uttar Pradesh. Informed consent was obtained from healthcare workers before the start of the study. A pilot study was conducted using the proforma on 90 healthcare workers attending health centre to check the validity of the questionnaire and operational feasibility of the study. Cronbach's alpha was applied for the reliability of the questionnaire for assessing the knowledge on oral health problems as the questionnaire items were analysed for difficulty in understanding, interpretation and answering correctly without any difficulty.

Health care workers who were present on the day of examination & who had given the consent to perform the oral examination were included in the study. Health care workers not present on the scheduled date of survey, with systemic diseases & who didn't give consent were excluded from the study.

The sample size was estimated as 816. In order to cover for the nonrespondents, a total of 900 subjects examined who were included in the study based on inclusion and exclusion criteria. The investigator practiced the method of recording using WHO oral health assessment form (1997). Multistage random sampling technique was used to allocate community health centres and primary health centres of Lucknow District. The study proforma had two parts: First part consisted of a predesigned and pretested questionnaire. The second part of the study proforma consisted of Extra – Oral examination including Temporo - mandibular joint assessment, Dentition status and Treatment needs according to WHO Oral Health Assessment Form 1997.

Oral health education regarding importance of oral hygiene, dental caries, bleeding gums and regular dental check-ups was given to all the workers examined and interviewed respectively. Survey findings were reported in the form of a simple summary including the number of subjects examined and observations of the examiner to respective centres authorities on the spot. Associations between the dependent and independent variables of categorical (discrete) type were tested by chi – square ($\chi 2$) test. p values less than 0.005 was considered to be significant.

Results

In the present study, most of the respondents were aged 20 – 40 years (54.4%) followed by 41 – 60 years (44.1%) and were Females (75.7%). The mean age of the respondents was 41.40±10.44 years. As per occupation, most of

respondents were in almost equal proportion of semi skilled (26.8%), skilled (29.7%) and semi professional (24.0%). Most of the respondents belonged to the Upper lower (42.1%) and Lower middle (31.3%) socio-economic class.

Table 1: *Age & Sex Distribution of Respondents*

Age Group	Gender				Total	
	Male		Female			
	N	%	N	%	N	%
20 - 40 yr	132	26.9	358	73.1	490	54.4
41 - 60 yr	87	21.9	310	78.1	397	44.1
above 60 yr	0	0.0	13	100.0	13	1.4
Total	219	24.3	681	75.7	900	100.0

Respondents who have teeth less than 20 were mostly of the age group 41-60 years (8.1%), while in the age group 20-40 years 93.9% of the respondents have more than 20 teeth. Though in the age group more than 60 years, all the subjects have teeth more than 20, but they all also felt tooth ache in the past 12 month. The respondents have any removable partial denture were mostly belonged to the age group 41-60 years (12.1%).

Most of the respondents of the age group 20-40 have good state of teeth (51.8%) while most of the respondents of the age group 41-60 and above 60 years have average state of teeth (42.3%, 61.5%). Respondents of the age group 20-40 have good state of gum (46.7%) while most of the respondents of the age group 41-60 have average and poor state of gum (34.5%, 30.2%), most of the respondents of the age group above 60 years have poor state of gum (61.5%).

Majority of the respondents have frequency of cleaning teeth once a day (59.8%) followed by twice or more a day (29.8%). There were 5.1% respondents who cleaned the teeth only once a month. Also the majority of the respondents have used toothbrush for cleaning of their teeth (97.4%) followed by Miswak (6.2%). Some of them used thread (4.4%), wooden toothprick (3.4%) and other methods (1.8%). 66.6% of the respondents visited dentist due to pain or trouble in teeth/gum, 13.3% went for routine checkup/follow up. Majority (100%) belonged to above 60 years followed by 41-60 years of age (71.1%) in the group who visited dentist due to pain or trouble in teeth/gum.

Table 2: *Distribution of Respondents According to Cleaning Practice of Teeth*

Cleaning Pattern	No.	%
Frequency of Cleaning Teeth		
Never	0	0.0
Once a Month	46	5.1
Once a week	8	0.9
2-6 times a week	40	4.4
Once a Day	538	59.8
Twice or more a day	268	29.8
Method of Cleaning Teeth		
Toothbrush	877	97.4
Wooden Toothprick	31	3.4
Plastic Toothprick	0	0.0
Thread	40	4.4
Charcoal	0	0.0
Miswak	56	6.2
Others	16	1.8

Most of the respondents faced highest loss of attachment 6-8 mm (41.0%) and 4-5 mm (35.6%) in which the contribution of the age group 41-60 years was 45.1% and 42.8% respectively, while the contribution of the age group 20-40 years was 38.8% and 28.0% respectively. There were 2.0% respondents of the age group 41-60 years in which the loss of attachment was more than 12 mm.

On an average 1.56 no. of teeth required one surface filling, maximum belong to the age group 41-60 years with average no. of teeth 2.36. On an average 0.61 no. of teeth required extraction, maximum belong to the age group 41-60 years with average no. of teeth 1.14. On an average 0.14 no. of teeth required pulp care, maximum belong to the age group above 61 years with average no. of teeth 0.38.

Maximum number of respondents have 20 or more teeth (n=838). A significant association between no. of teeth and education level was observed ($p<0.001$). The respondents having teeth less than 20 were mostly semi skilled and skilled workers. A significant association between no. of teeth and occupation was observed ($p<0.001$).

A significant association between CPI index and cleaning practice was observed ($p<0.001$). The respondents having Bleeding/Calculus CPI mostly practiced poorly either once a week (100% calculus) or once a month (65.2% calculus).

Discussion

Oral health is an integral part of general health, which is defined as "standard of health of the oral and related tissues that enables an individual to eat, speak and socialize without active disease, discomfort or embarrassment and which contributes to general well – being". In the present study the age of the healthcare workers were ranged from 20- 60 years with mean age of 41.4 ± 10.4yrs. A similar study was conducted by Aggnur M et al (2014)3 in that, majority (53.6) of the healthcare workers in the study belonged to age group between 20 and 40 years which is also similar to the study by Kaur S et al (2015)8, B Pratibha et al (2010)9.

Majority of the participants 42.1% belonged to upper lower class, 31.3% belonged to lower middle class while remaining 15.2% belonged to upper middle class wherein the education, occupation along with the total family income was recorded using Kuppuswamy's SES scale that has been employed previously by Hebbal MI et al (2011)10.

Regarding the practice about oral hygiene aid majority of healthcare workers use toothbrush to clean their teeth with toothpaste once a day (97.4%, 76.9% and 59.8%) respectively. This is similar to the study done by Bhambal A et al (2015)11 who found that only 11.4% of the participant brushed their teeth twice a day, remaining 88.5% participants brushed their teeth once a day with tooth brush (92.3%) and this study is also similar to the study by Yadav K et al (2016)12, Aggnur M et al (2014)3, Baseer MA et al (2012)13,Kaur S et al (2015)8.

Most (85.4%) of the healthcare workers pointed that their state of teeth and gums are good .This result is in contrast with study done by Frazao and Marques (2009)14 whose respondents (47%) described their state of oral health as good. This clearly indicates lack of awareness in the healthcare workers about their present oral health status and this social desirability bias may also be a reason that could be attributed to the wrong responses given by the participants.

The second part of the study proforma consisted of oral examination including Dental fluorosis, Community Periodontal Index(CPI), Loss of Attachment, Dentition status and Treatment Needs, Prosthetic Status, Prosthetic Needs and Need for Immediate care and referral according to WHO Oral Health Assessment 199715.

In the present study almost half of the subjects were free from periodontal disease almost 42.6% were having calculus which is in contrast with the study by Aggnur M et al (2014)3 which showed 80.2% had calculus and 39.8% having bleeding gingiva which is in contrast with the study by Nalini MS et al (2010)16which showed 4.7% of the subjects having bleeding gingiva. These findings showed that either the healthcare workers were not having the sufficient knowledge about the maintenance of oral hygiene or oral prophylaxis is not been availed or the reason may be habit of chewing and smoking tobacco.

Data regarding loss of attachment among healthcare workers was collected, which showed that nearly half (41%) healthcare workers had 6 – 8 mm loss of attachment. The possible reasons would be due to the lack of knowledge about harmful effects of tobacco use as percentage of chewing and smoking tobacco was high.

Conclusion

The present study gives a brief insight of the oral health knowledge, attitude and practices of healthcare workers which were of fair degree. The study findings concluded that there was an evident gap between their knowledge and what they were really practicing. The study result revealed that healthcare workers in Lucknow, were moderately informed about few important aspects of oral health.

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