

Knowledge, Attitude and Practices of Caretakers in Relation to Oral Health of Institutionalized Elderly in Bangalore City, India

Abstract

Introduction: The population of older people as well as the number of dependent older people is steadily increasing. Over that period, many articles have appeared in the nursing press to raise awareness of oral health care and to advise nurses about assisting or enabling patients to maintain oral hygiene. **Objective:** The main objective of the study was to assess the oral health knowledge, attitude and practices among nursing staff of institutionalized elderly. **Methodology:** A cross sectional survey was carried out among nursing staff of institutionalized elderly in Bangalore city India, to assess the oral health knowledge, attitude and practices among nursing staff. The data was collected from 78 caretakers using a questionnaire. Data was analyzed using SPSS version 15.0. **Results:** In the present their knowledge on importance of oral health and oral hygiene, use of fluorides, denture care and denture hygiene practices, management of dry mouth and importance of regular dental check-ups, monitoring of sugar intake and routine oral examinations was poor. Besides toothbrush and toothpaste, a maximum number of respondents were also aware of the other oral hygiene aid which is quite an important sign of detail information among the nursing staff. **Conclusion:** Since the elderly residents are dependent on the caretakers for their routine oral and general hygiene practices, and also it is well documented that there is significant improvement in the oral hygiene practices of elderly residents by educating their caretakers. So educating caretakers for assisting or enabling residents for maintaining oral hygiene is essential.

Key Words

Oral health knowledge; caretaker's knowledge; oral health knowledge among nursing staffs

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INTRODUCTION

The age distribution of the worlds' population is changing. With advances in medicine and prolonged life expectancy, the proportion of older people will continue to rise worldwide. There were 390 million people aged over 65 years recorded in the 1998 World Health Report, and this figure is estimated to double in 2025. The growth in this population is staggering, posing tremendous challenges in caring

for this ageing population.^[1] Oral diseases and conditions can have social impacts on quality of life, including comfort, eating, pain, and appearance, and are related to dentate status. Older adults need to eat and talk comfortably, to feel happy with their appearance, to stay pain free, to maintain self-esteem, and to maintain habits/standards of hygiene and care that they have had throughout their lives. Globally, poor oral

health among older people has particularly been seen in a high level of tooth loss, dental caries experience, high prevalence rates of periodontal disease, xerostomia, and oral precancer/cancer. The negative impact of poor oral conditions on daily life is particularly significant among edentulous people.^[2] The population of older people as well as the number of dependent older people is steadily increasing. Those unable to live independently at home are being cared for in a range of settings and varying degrees of dependency means that many are unable to attend fully to their needs. Nurses and care staff require the necessary knowledge and skills to effectively meet the oral care needs of older people who are unable to do this for themselves. Over that period, many articles have appeared in the nursing press to raise awareness of oral health care and to advise nurses about assisting or enabling patients to maintain oral hygiene. However, in nursing home residents “oral health continues to be poor”.^[3] Nurses are frequently unaware of the importance of oral health care within holistic care, and are unable to carry it out. Psychological barriers to working in another person’s mouth are widespread among caregivers.^[3] In some scenario although care assistants (henceforth called “caregivers”) may hold certain common misconceptions about oral health, their knowledge is often good, yet is not translated into practice. Caregivers may hold generally positive attitudes towards oral health care, yet fail to overcome barriers such as low prioritization, revulsion, and lack of time or materials.^[4] Recent research continues to highlight the inadequacy of professional nurse training. Practical training for nurses and auxiliary care staff has frequently been recommended as a way of improving oral health care for functionally dependent elderly.^[3,5-7] The main objective of the study was to assess the oral health knowledge, attitude and practices among nursing staff of institutionalized elderly.

METHODOLOGY

A cross sectional survey was carried out among nursing staff of institutionalized elderly in Bangalore city India, to assess the oral health knowledge, attitude and practices among nursing staff. There are 65 Old Age Homes in Bangalore city, in which there are around 730 caretakers. This information was collected from THE ELDER'S HELPLINE 1090 (A project of Bangalore city and Nightingales Medical Trust) a voluntary organization working for Elders Welfare and other

sources. The sample size taken for this study was 10% of the caretakers in Bangalore city. 20 item questionnaire with a three-point Likert Scale (Yes, No and Don't Know) was developed to assess the oral health information of the caretakers. Its respective psychometric properties (validity and reliability) were assessed. Content validity was assessed by a panel of eight experts made up of staff members of Department of Public Health Dentistry, The Oxford Dental College, Hospital and Research Centre, Bangalore. The purpose was to depict those items with a high degree of agreement among experts. Aiken's V was used to quantify the concordance between experts for each item; values higher than 0.92 were always obtained. Before commencing the study, a pilot study was performed among the caretakers in an elderly home, to check the internal consistency of the questionnaire. The results thus obtained were subjected to statistical analysis. Cronbach's alpha value of 0.82 showed good internal consistency of the questionnaire. The questionnaire was distributed among 78 caretakers and the respondents were instructed to fill the questionnaire without discussion with each other, the response rate was 100%. The preliminary section was designed to gather demographic data and the anonymity of the respondents was assured. The second section was concerned with oral health knowledge, attitude and practice related questions. The data collected was analyzed using statistical package for social sciences (SPSS) version 15.0. Informed consent was obtained from each participant before the questionnaire was distributed. The study protocol was reviewed and approved by the Ethical Committee of The Oxford Dental College and Research Centre.

RESULTS

Table 1 reveals the distribution of the caretakers according to age: The mean age of the caretakers was 22.32 ± 3.88 . Table 2 reveals the distribution of the caretakers according to gender: 6 (7.69%) caretakers were male and 72 (92.31%) caretakers were females. Table 3 reveals the oral health knowledge, attitude and practices among caretakers. With respect to the first statement “Health of mouth is directly related to body” 66 (78.9%) caretakers answered correctly as “yes”. For the second statement “You can chew just as well with denture tooth as with your natural teeth” only 29 (39.5%) caretakers answered “no”. With respect to the third statement “When gums bleed during brushing, it's best to leave them alone” 60 (73.7%) caretakers

Table 1: Distribution of caretakers according to age

AGE	n	%
18-20	31	39.68
21-30	41	52.68
31-40	6	7.68
Total	78	100
Mean \pm SD		22.32 \pm 3.88

Table 2: Distribution of caretakers according to gender

GENDER	n	%
Male	6	7.69
Female	72	92.31
Total	78	100

Table 3: Oral hygiene knowledge of caretakers in Study and Control group

QUESTIONS	YES	NO	DON'T NO
1	66 (78.9%)	10 (15.8%)	2 (5.3%)
2	29 (39.5%)	49 (60.5%)	0 (0%)
3	15 (18.4%)	60 (73.7%)	3 (7.9%)
4	38 (44.7%)	21 (26.3%)	19 (28.9%)
5	44 (55.3%)	24 (34.2%)	10 (10.5%)
6	45 (65.8%)	13 (10.5%)	20 (23.7%)
7	46 (57.9%)	20 (15.8%)	15 (26.3%)
8	45 (57.9%)	27 (31.6%)	6 (10.5%)
9	65 (86.8%)	4 (2.6%)	9 (10.5%)
10	31 (44.7%)	23 (26.3%)	24 (28.9%)
11	44 (50%)	22 (28.9%)	12 (21.1%)
12	22 (26.3%)	53 (71.1%)	3 (2.6%)
13	59 (76.3%)	6 (2.6%)	12 (21.1%)
14	71 (92.1%)	7 (7.9%)	0 (0%)
15	73 (97.4%)	3 (2.6%)	2 (0%)
16	29 (39.5%)	49 (60.5%)	0 (0%)
17	38 (44.7%)	21 (26.3%)	19 (28.9%)
18	29 (39.5%)	49 (60.5%)	0 (0%)
19	49 (60.5%)	29 (39.5%)	0 (0%)
20	65 (86.8%)	13 (13.4%)	0 (0%)

answered “no”. With respect to the fourth statement “older adults with dry mouth get more cavities” 38 (44.7%) caretakers answered “yes”. With respect to the fifth statement “The most common cause of dry mouth is medication” 44 (55.3%) caretakers answered “yes”. With respect to the sixth statement “Older adults with teeth need to use fluorides” only 45 (65.8%) caretakers answered “yes”. With respect to the seventh statement “Mouth rinsing are good alternative to daily tooth brushing” only 20 (15.8%) caretakers answered “no”. With respect to the eighth statement “People with no teeth need to be seen by a dentist” only 45(57.9%) caretakers answered “yes”. With respect to the ninth statement

“Dentures should be removed for few hours every day” 65 (86.8%) caretakers answered “yes”. With respect to the tenth statement “Dentures those don’t fit well can cause oral cancer”. Only 31 (44.7%) caretakers answered “yes”. With respect to the eleventh statement “It is normal for residents to have pain and sores in their mouth”. Only 22 (28.9%) caretakers answered “no”. With respect to the twelfth statement “Residents who do not cooperate for daily mouth care are best left alone” only 53 (71.1%) caretakers answered “no”. With respect to the thirteenth statement “Dental check-ups are as important as medical” 59 (76.3%) caretakers answered “yes”. With respect to the

QUESTIONNAIRE

S. NO	QUESTION	YES	NO	DON'T KNOW
1	Health of mouth is directly related to body			
2	You can chew just as well with false tooth as with your natural teeth			
3	When gums bleed during brushing, its best to leave them alone			
4	Older adults with dry mouth get more cavities			
5	The most common cause of dry mouth is medication			
6	Older adults with teeth do not need to use fluorides			
7	Mouth rinsing are good alternative to daily tooth brushing			
8	People with no teeth do not need to be seen by a dentist			
9	Dentures should be removed for few hours every day			
10	Dentures those don't fit well can cause oral cancer			
11	It is normal for residents to have pain and sores in their mouth			
12	Residents who do not cooperate for daily mouth care are best left alone			
13	Dental check-ups are as important as medical			
14	Residents can loose their teeth if they remain dirty			
15	As people get old they naturally loose their teeth.			
16	Do you clean the residents mouth daily			
17	Do you consult dentist routinely for dental problems			
18	Do you keep an account of their sugar intake			
19	Do you examine the oral cavity of the residents regularly			
20	Do you ask the residents to remove their dentures at night			

fourteenth statement "Residents can lose their teeth if they remain dirty" 71 (92.1%) caretakers answered "yes". With respect to the fifteenth statement "As people get old they naturally lose their teeth" 3 (2.6%) caretaker answered "no". With respect to the sixteenth statement "Do you clean the resident's mouth daily" only 29 (39.5%) caretakers answered "yes". With respect to the seventeenth statement "Do you consult dentist routinely for dental problems" only 38 (44.7%) caretakers answered "yes". With respect to the eighteenth statement "Do you keep an account of their sugar intake" only 29 (39.5%) caretakers answered "yes". With respect to the nineteenth statement "Do you examine the oral cavity of the residents regularly" only 49 (60.5%) caretakers answered "yes". With respect to the twentieth statement "Do you ask the residents to remove their dentures at night" 65 (86.8%) caretakers answered "yes".

DISCUSSION

The population of older people as well as the number of dependent older people is steadily increasing. Those unable to live independently at home are being cared for in a range of settings and varying degrees of dependency. These dependent elderly people residing at the old age homes are usually bedridden with compromised health conditions. Old age is associated with being edentulous or partially edentulous. Epidemiological studies reveal that in general the oral health of elderly people is poor. So oral disease can be

considered as a public health problem due to its high prevalence and significant social impact. Due to the educational level and the professional role of the nurses, it is expected that they are to be more knowledgeable in the community about oral health and its diseases. Keeping in mind the expected role to be played by the nursing staff, a need was felt for assessing the oral health related knowledge, attitude and practice by these caretakers. Oral hygiene is fundamental to the maintenance of oral health; therefore oral hygiene knowledge and practice were taken as the basic data. A questionnaire written in English was used for the collection of data in this study which constituted 20 questions. To obtain the genuine responses, the anonymity of the respondents was ensured.

Oral health knowledge, attitude and practices of Caretakers

In the present study Caretakers were targeted, since they provide up to 90% of elderly residents personal care. In the present their knowledge on importance of oral health and oral hygiene, use of fluorides, denture care and denture hygiene practices, management of dry mouth and importance of regular dental check-ups, monitoring of sugar intake and routine oral examinations was poor. These results were similar to studies conducted by Gun Paulsson *et al.*,^[8] D Simons *et al.*,^[9] and Nicol R *et al.*^[10] Besides toothbrush and toothpaste, a maximum number of respondents were also aware of the other oral hygiene aid which is quite an

important sign of detail information among the nursing students. Most of them had correct knowledge regarding the role of oral health on general health. Being a developing country it is almost obvious the curative services predominant over preventive ones. The participants demonstrated a positive attitude toward dentists and high awareness of the link between oral health and systemic well-being. It is very important to mention the link as it might help to promote oral health care and oral self-care practice among them. But the participants also demonstrated negative attitude towards the need of dental care towards uncooperative residents and also with patients without any teeth and also considered that losing teeth is an old age problem and almost half of the respondents believe to visit a dentist only there is a need. However it is recognized that within long term care facilities, numerous problems mitigate against routine provision of oral health care and encourage neglect. Some of the reasons for neglect include: lack of personal perception of oral health problems by residents, inability of residents to articulate a need, family members placing dental care as a low priority, long term care staff placing patients dental care as a low priority, long term care staff limitations like heavy workloads, physiological barriers like cleaning other persons mouth, inadequate oral hygiene aids and difficulty in obtaining dental care. In the light of these difficulties it is pertinent to highlight certain groups in residential care where there is evidence of poor oral health and inadequate or restricted access to dental services.^[11]

CONCLUSION

Since the elderly residents are dependent on the caretakers for their routine oral and general hygiene practices, and also it is well documented that there is significant improvement in the oral hygiene practices of elderly residents by educating their caretakers. So educating caretakers for assisting or enabling residents for maintaining oral hygiene is essential.

RECOMMENDATIONS

Educating caretakers for assisting or enabling residents for maintaining oral hygiene is essential and inclusion of oral health management in their course curriculum and periodic oral health awareness should be done among these health care providers.

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