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Oral health knowledge, attitude and practices among nurses in a tertiary care hospital in Bangalore, India: a cross-sectional survey

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Background: Maintaining good oral health among hospitalized individuals is essential for health outcomes and quality of life. Nurses, being the primary oral care givers require adequate knowledge, attitude and practice in this area to provide effective oral health care. However, limited studies have been undertaken to evaluate this aspect of nursing care in India. **Aim:** To determine the knowledge, attitude and practices of nurses regarding oral care for hospitalized patients.

Design: Cross-sectional survey.

Methods: A total of 244 nurses working in a tertiary care hospital in Bangalore, South India were purposively recruited for this study. Data was collected using a structured questionnaire with both closed and open-ended questions about knowledge, attitude and practice regarding oral care.

Results: The mean oral health knowledge score was 6.74 out of maximum score of 22. Most nurses were aware of the importance of oral care among inpatients and the effect poor oral hygiene and systemic diseases have on oral health. Deficiencies in knowledge were prevalent in areas including common medications that affect oral health and regarding care of dentures. Nurses, with higher nursing qualifications and working in departments with longer length of stay had higher attitude scores. Most nurses assessed oral health needs within 24hrs of admission. However, there were inconsistencies in the oral health assessment and care protocols followed and documentation.

Conclusion: Nurses' attitude towards oral health was positive yet their knowledge in specific aspects of care was inadequate. Their oral health practices needs improvement.

Keywords: oral care; oral hygiene care; nurses; hospitalized; nursing care; in-patient care

Impact statement

This paper highlights strengths and weaknesses in the knowledge, attitudes, and practices of nurses in an Indian hospital setting.

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Introduction

Globally, research has highlighted the challenge of maintaining the oral health of hospitalized individuals that require assistance with activities of daily living (Malkin, 2009). Patients with dysphagia, psychological illness, physical and learning disabilities, critical and terminal illness, as well as those who are older or very young, are particularly vulnerable and depend on the institution for effective oral care (Malkin, 2009). Further, certain medications and procedures such as intubation put some patients at a higher risk of oral problems such as opportunistic infections and xerostomia (dry mouth), and can significantly alter a patient's ability to swallow, resulting in the accumulation of plaque and debris in the mouth (Jang & Shin, 2016).

It is known that the oral care that hospitalized individuals receive affects patient wellbeing and disease outcomes (Chalmers & Pearson, 2005; Terezakis, Needleman, Kumar, Moles, & Agudo, 2011). In fact, poor oral health can significantly impact a patient's quality of life, causing pain and affecting psychological and social wellbeing, speech, and nutrition (Galgut, 2010). Further, there is increasing evidence that poor oral health is associated with diabetes, cardiovascular disease, renal disease, rheumatoid arthritis and aspiration pneumonia, highlighting the negative effects that it can have on systemic health (Galgut, 2010). In addition, studies show that oral health is significantly associated with length of stay in hospital, with increased accumulation of dental plaque, gingival and mucosal inflammation as stay in hospital increases (Sousa et al., 2014; Terezakis et al., 2011). This is concerning, as oral health has been an ongoing issue for hospitalized patients, with studies showing a high prevalence of oral health problems in hospitalized patients worldwide.

Nurses are the primary care providers in hospitals, and play a critical role maintaining and promoting oral health. Yet research suggests that globally, oral care is not a priority among nurses and they have inadequate knowledge and awareness of oral care (Adams, 1996). In a survey of Iranian and Asian nurses, dental care was seventh on their priority list with a mean score of 5.7 out of 10 (Adib-Hajbaghery, Ansari, & Azizi-Fini, 2013). Although some nurses consider oral care as an important part of general care, they perform oral care based on personal preferences rather than on the best evidence (Berry, Davidson, Masters, & Rolls, 2007). Most methods are directed towards patient comfort rather than removal of pathogens (Chan & Hui-Ling Ng, 2012). International research indicates that there are several challenges nurses face in the provision of quality oral care including insufficient time for effective oral care, lack of oral care materials and noncompliant patients (Adams, 1996; Ezeja, Azodo, Ehizele, & Odai, 2010).

In India, it is evident that hospitalized patients also experience poor oral health, with a study by Rai et al. finding that almost half of hospitalized patients had at least one oral symptom, and over two-thirds of patients experienced dental caries (Rai, Naikmasur, & Kumar, 2015). Despite this evidence to date, there is little research that describes the oral health knowledge, attitudes and practices of nursing staff in India. Only one other study in India has explored this area and has highlighted that nurses may be lacking sufficient knowledge and training regarding the provision of oral health care, with 51.3% of nurses having poor knowledge of oral care for cancer patients and 55% reporting that basic training in oral care was insufficient (Pai & Ongole, 2015). However, this study, from the Dakshina Kannada district of Karnataka State, only focused on palliative care nurses. There are currently no studies available that explore the knowledge, attitudes, and practices of all hospital nursing staff in India. It is essential to investigate the current needs of nursing staff in Indian hospitals if strategies are to be developed to improve the oral health of patients.

Aim

The aim of this study was to determine knowledge, attitude and practices among nurses towards oral care of hospitalized individuals in Bangalore, India.

Methodology

Study design

This study utilized a cross-sectional design, using a quantitative questionnaire to describe the current knowledge, attitudes and practices of nursing staff in Bangalore, India. The method employed followed the STROBE reporting guidelines.

Sample and setting

Recruitment for this study took place at a major hospital in Bangalore, India between June and July 2016. A purposive sampling technique was used, whereby nursing staff attending an in-house training program were invited to complete the questionnaire. Information sheets were provided and informed consent was obtained from all participants. Ethics approval was obtained from the Institutional Review Board of the Hospital.

Data collection

Data for the study was obtained using a self-reported questionnaire, which participants were given 30 minutes to complete. Development of the questionnaire involved review of the literature, international guidelines and expert opinions regarding oral care in the hospital setting (Berry et al., 2007; Chan & Hui-Ling Ng, 2012; Kearns & Booth, 2009; Pai & Ongole, 2015). Most questionnaire items were derived from a national survey of Intensive Care Units in Scotland (Kearns & Booth, 2009), and were adapted for use in India. In addition to a basic demographic section, the questionnaire consisted of three domains: oral health knowledge, oral health attitudes, and oral health practices. Oral health knowledge was measured using a combination of multiple-choice questions (yes/no/not sure) and open-ended questions. Attitudes were assessed using 12 items on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), and practices were explored using a combination of multiple-choice questions (yes/no/not sure) and multiple entry questions (select all that apply).

Data analysis

Survey data were entered into, and analyzed using SPSS Statistics version 24 (IBM Corp., 2016). Participants with missing data were excluded from any analyses involving that data. Data regarding the oral health knowledge, attitudes and practices of nursing staff was summarized using descriptive statistics including frequencies, means and standard deviations. Open-ended knowledge items were scored according to the number of responses provided, as seen in Appendix 1. These were then aggregated into a score out of 22, where a score of 22 indicated the participant had competent knowledge regarding all items. To allow comparison between items, raw knowledge scores were converted to adjusted scores, whereby the score for each item was divided by the total achievable score for that item. Items regarding nursing staff attitudes towards oral health were aggregated into a total score out of 60, and reliability was assessed through the computation of Cronbach's alpha. The departments that participants worked in were coded into three variables: (a) whether the department was a paediatric department; (b) whether the department typically treated patients with a short length of stay, for example, outpatient and emergency departments; and (c) whether the department treated patients with conditions that increased the risk of poor oral health.

Continuous variables were tested for normality using Shapiro Wilk tests. Group comparisons were then conducted to determine factors associated with oral health practices such as assessing oral care needs of inpatients within 24 h, recording oral health findings in nursing notes and oral

health care frequency, as well as attitudes and receiving oral health training. Continuous variables were compared using independent samples t-tests for normally distributed variables, or otherwise Mann–Whitney U tests. The alpha level was set at 0.05. To facilitate analysis of factors associated with oral health practices, continuous variables such as knowledge were dichotomized at the median. Any oral health practices with more than two categories, for example, frequency of oral care, were also collapsed into binary variables as close as possible to the median value. Categorical variables were then compared using contingency tables and Pearson's chi-squared tests.

Results

Demographics

All of the 244 nursing staff invited to participate responded. Most of the participants were female (94.7%), with their age ranging from 21 to 53 years (mean 27.64). They had an average of 4.73 years' experience, and just under half of the respondents had experience working in the intensive care unit (ICU). Just under a third of nurses had a bachelor or above as their highest nursing qualification. Nearly 60% of participants had received some form of oral health training, with higher proportions of nurses who worked in departments that either typically saw patients with longer lengths of stay ($p = .006$) or treated patients with conditions that increased the risk of poor oral health ($p = .017$). Full demographics of participants can be seen in [Table 1](#).

Knowledge

The mean total knowledge score of participants was 6.74 (SD = 2.439) out of a total possible score of 22. The majority of participants knew of the importance of oral care in inpatients and the association between oral hygiene and systemic disease, having the highest adjusted scores of 0.98 and 0.96, respectively. However, participants achieved the lowest adjusted knowledge scores regarding common medications that interfere with oral health, and care of dentures. See [Table 2](#) for all adjusted knowledge scores.

Attitudes

The mean attitude score of participants was 40.32 out of a possible 60 points ([Table 3](#)). The internal consistency of the attitudes scale was high, with a Cronbach's alpha of 0.751. There were two factors that were associated with participants having higher attitudes; having a bachelor degree or higher as the highest educational qualification, or working in a department that typically treats patient with a longer length of stay ([Table 3](#)).

Practices

[Table 4](#) summarizes the oral health practices of respondents. More than three-quarters of respondents indicated they assessed the oral health needs of patients within 24 h of admission. This practice was significantly associated with perceived supplies (provisions for oral care) and the department the respondent worked at, being less frequent among those perceiving their supplies to be inadequate, and those working at departments that typically treat patients with a shorter length of stay ([Table 5](#)). Slightly fewer respondents documented oral findings in patients' progress notes, and this was also significantly associated with perceived supplies. Approximately half of respondents indicated that their department had a formal unit protocol for oral health assessment, with less than half of respondents indicating their department had a formal protocol for oral care

Table 1. Demographic characteristics of participants.

| | N (%) |
|--|--------------|
| Gender | |
| Male | 13 (5.3) |
| Female | 231 (94.7) |
| Age (mean +/- SD) | 27.64+/5.554 |
| Number of years experience as a nurse (mean +/- SD) | 4.73+/4.590 |
| Experience in ICU | |
| Yes | 102 (42.9) |
| No | 136 (57.1) |
| Highest nursing qualification | |
| Diploma | 162 (66.8) |
| Bachelor | 59 (24.5) |
| Postgraduate diploma | 15 (6.2) |
| Masters | 3 (1.2) |
| Refused | 2 (0.8) |
| Department | |
| Child | 34 (14.2) |
| Adult | 206 (85.8) |
| Short length of stay | 47 (19.6) |
| Long length of stay | 193 (80.4) |
| Patients with high oral health risk | 118 (49.2) |
| Patients with low oral health risk | 122 (50.8) |
| Time of oral health training | |
| During nursing degree | 160 (66.7) |
| At Work place | 17 (7.2) |
| Other | 2 (0.8) |
| N/A | 54 (22.8) |

Notes: Missing data ranged from 0.0–2.9%.

Table 2. Nurses' oral health knowledge scores for all knowledge items.

| Knowledge item | Raw score | Adjusted score | Standard deviation |
|--|-----------|----------------|--------------------|
| Importance of oral care in inpatients | 0.98 | 0.98 | 0.143 |
| Association between oral hygiene and systemic disease | 0.96 | 0.96 | 0.200 |
| Common precautions to avoid cross-infections | 1.04 | 0.26 | 0.172 |
| Common medications that interfere with oral health | 0.62 | 0.15 | 0.149 |
| Common recognizable oral infections in patients | 0.89 | 0.30 | 0.213 |
| Diseases that may worsen with poor oral hygiene | 0.80 | 0.27 | 0.241 |
| Areas of the oral cavity that require routine assessment | 0.93 | 0.31 | 0.274 |
| Care of dentures | 0.54 | 0.18 | 0.210 |

provision. Just under two-thirds of respondents performed oral care at least twice per day, with perceptions of inadequate supplies, working in a paediatric department, and a low total knowledge score associated with providing oral health care less than twice per day. Full results on variables associated with these practices can be seen in [Table 5](#).

Discussion

The aim of this study was to explore nurses' knowledge, attitude and practice towards oral care of hospitalized patients. Response bias was minimal as all nurses responded to the questionnaire,

Table 3. Mean attitude score of participants, and variables associated with attitude score.

| Variable | Mean | SD | <i>p</i> (Mann–Whitney U) |
|---|-------|-------|---------------------------|
| Attitudes regarding oral health | 40.32 | 7.302 | |
| Items associated with attitudes regarding oral health | | | |
| Highest educational qualification | | | |
| Below bachelor | 39.55 | 7.233 | 0.013 |
| Bachelor degree and higher | 41.89 | 7.194 | |
| Department | | | |
| Short length of stay | 38.62 | 5.848 | 0.039 |
| Long length of stay | 40.76 | 7.564 | |

Notes: Missing data ranged from 1.64–4.7%.

Table 4. Proportion of participants who engaged in various oral health practices.

| Practice | <i>N</i> (%) |
|--|--------------|
| Assess oral health need within 24 h | 80.2 |
| Documentation of oral findings | 77.2 |
| Formal unit protocol for assessment | 42.9 |
| Formal unit protocol for provision of care | 51.4 |
| Hospital supply of resources | 84.2 |
| Oral care frequency | |
| Not at all | 0.8 |
| Once per day | 37.4 |
| Twice per day | 36.6 |
| Three times per day | 22.2 |
| More than three times per day | 2.9 |

Note: Missing data ranged from 0.004–10.9%.

allowing complete representation from the hospital. In addition, population characteristics were similar to findings reported in national statistics (Sudhir & Victoria, 1991). However, the questionnaire used in this study was not validated which limits the generalizability of these findings. Nevertheless, this study is significant as there is a paucity of research on nurses' knowledge, attitude and practice towards oral care of hospitalized patients in India.

Table 5. Variables associated with certain practices and receiving training.

| | Yes <i>n</i> (%) | No <i>n</i> (%) | <i>p</i> (Pearson's χ^2) |
|--|------------------|-----------------|--------------------------------|
| Assesses oral care need of inpatients within 24 h | | | |
| Perceived supplies to be adequate | 169 (87.6) | 34 (70.8) | 0.004 |
| Department generally short length of stay | 31 (16.3) | 16 (33.3) | 0.008 |
| Oral health knowledge score > 6 | 106 (55.5) | 17 (35.4) | 0.013 |
| Records oral findings in nursing notes | | | |
| Perceived supplies to be adequate | 161 (87.0) | 41 (74.5) | 0.026 |
| Performs oral health care at least twice a day | | | |
| Perceived supplies to be adequate | 131 (88.5) | 72 (78.3) | 0.032 |
| Paediatric department | 15 (10.1) | 19 (19.8) | 0.036 |

Note: Missing data ranged from 1.2–2.9%.

Knowledge

Findings from this study highlighted that most nurses were aware of the importance of oral care for inpatients and the effect poor oral hygiene has on systemic health. This is an important finding as it reflects nurse's awareness of their role as caregivers and the significance of mouth care in the overall care of the patient (Malkin, 2009). Despite this, similar to previous studies (Adams, 1996; Miller & Rubinstein, 1987; Pettit, McCann, Schneiderman, Farren, & Campbell, 2012), they lacked awareness regarding the care of dentures and common medications that impact on oral health. This is significant as both denture care and knowledge regarding medications that affect oral health are important aspects of nursing care (Binks, 2017). Knowledge regarding care of dentures is essential, as improper care and cleaning of such prostheses can increase risk of complications such as aspiration pneumonia (Grap, Munro, Elswick, Sessler, & Ward, 2004). Similarly, knowledge of medication that can alter saliva and risk of dental decay would enable the identification of individuals who are at a higher risk of oral diseases and inform their oral care requirements (Binks, 2017; Walsh, 2017).

The shortfall in knowledge seen in this study could be attributed to a lack of continued oral health training within the workforce. Contrary to some previous studies (Dolce, Haber, & Shelley, 2012; George et al., 2014; Longhurst, 1998), the majority of study nurses received oral health education during their university training and not during clinical practice. Similar findings were reported by Chan et al. who found very few nurses received oral care training after graduation (Chan & Hui-Ling Ng, 2012). This could limit their opportunities to reinforce oral health knowledge gained in their foundational training and stay informed regarding current best practice. In support of this, a study by Southern highlighted the importance of continuing oral health education among nurses, reporting that nurses with specialized in-house oral care training have better oral care knowledge than nurses with only general nursing education (Southern, 2007). In this study, there was no relationship detected between oral health knowledge, highest education level, years of experience and area of work. This finding is similar to previous studies (Lin, Chang, Chang, & Lou, 2011; Pettit et al., 2012), but different to Chan et al. who did find an association between oral health knowledge scores and nursing education. Although majority of nurses in Chen et al.'s study also received oral health training during their undergraduate studies there were more number of graduates in their sample (40%) compared to our study (24%) which could explain the association found (Chan & Hui-Ling Ng, 2012).

Attitude

Nurses displayed moderately favorable attitudes towards oral care, with a reasonably high mean attitude score. This was similar to other studies where oral care was rated as a moderate to high priority for nurses (Binkley, Furr, Carrico, & McCurren, 2004; DeKeyser Ganz et al., 2009; Grap, Munro, Ashtiani, & Bryant, 2003). More than three-quarters of participants in the current study strongly agreed that oral care was of high priority in mechanically ventilated patients. This was slightly lower than results reported from Australia (Gibney, Wright, Sharma, & Naganathan, 2015) and the USA (Binkley et al., 2004) but higher than results from Singapore (Chan & Hui-Ling Ng, 2012). However, this result should be viewed with caution as one study showed that although nurses prioritize mouth care to be as important as other hygiene activities, it is ranked last among all treatment activities as oral care is not seen to constitute any immediate risk of survival to the patient (Lin et al., 2011).

There was a strong association between attitude scores and highest nursing qualification in this study, with those with higher qualifications having more favorable attitudes towards oral care. This was in contrast to results reported by Lin et al where there was no effect of nurses'

qualifications on attitude towards oral care (Lin et al., 2011). Those who treated patients in longer stay wards also had higher attitude scores, which was expected as patients in these wards are more functionally dependent, requiring more assistance with oral care, and are at higher risk of oral diseases.

Practice

Most nurses reported that they performed an oral assessment within 24 h of admission. These findings were consistent with findings from studies among critical care nurses in Taiwan (Lin et al., 2011), Singapore (Chan & Hui-Ling Ng, 2012) and Texas (Pettit et al., 2012). Our study also highlighted that conducting an oral assessment within 24 h was significantly associated with knowledge scores and working in longer stay departments. This is in agreement with other studies that have reported an association between knowledge and oral care practice (Lin et al., 2011; Ross & Crumpler, 2007). Conducting an assessment within 24 h of admission was less prevalent in departments with shorter length of stay, such as the labor room, outpatient departments, emergency, dialysis, and endoscopy. Within these departments, oral care is not a necessity.

Nurses who perceived supplies such as artery clamps, swab and swabbing sticks, antiseptics, mouth wash, toothpaste and tooth brushes to be adequate were more likely to perform oral health assessments within 24 h of admission, record oral findings in the nursing notes and perform oral care at least twice a day. This is in agreement with previous studies highlighting the availability of oral care requisites have shown to influence practice (Chan & Hui-Ling Ng, 2012; Kite, 1995), emphasizing the importance of the provision of adequate oral care resources. These findings are significant as routine oral assessment is essential for the early identification and management of oral diseases, and could potentially promote patient compliance with oral care regimens (Kenny, 1990).

Our findings did show a reasonably high frequency of oral care in comparison to some studies, however, frequency of oral care provision differed among nurses, indicating inconsistencies in practice. This was similar to previous studies that have observed wide variances in oral health care practices of nurses particularly around the frequency and cleaning methods used, assessment tools used and documentation of dental care (Binkley et al., 2004; Chan, Lee, Poh, Ng, & Prabhakaran, 2011; DeKeyser Ganz et al., 2009). However, less than half of nurses in the current study were aware of a formal unit protocol for oral assessment, indicating that there was no oral care assessment protocol in their unit. Upon inspection of the nursing protocols for this hospital, they did not specify how frequently mouth care should be provided. This is significant as standardized assessment protocols for oral health are essential for ensuring quality patient care (Andersson, Persson, Hallberg, & Renvert, 1999). Regularity of oral care and assessment is crucial for success of oral care in patients and should vary depending on the patient's condition and comfort (Evans, 2001). Comprehensive nursing oral care guidelines and standards may be required as they have shown to improve patient care (Cason, Tyner, Saunders, & Broome, 2007; Lin et al., 2011) and initial oral assessment (Andersson et al., 1999; Chan & Hui-Ling Ng, 2012).

Conclusion

This study has provided a valuable insight into this under researcher area in India. The findings show that although nurses are aware of the importance of oral health they are lacking adequate knowledge on specific aspects of the care needed. In addition, nurses are providing oral health assessments and care to their patients yet there are inconsistencies in their practice and documentation. The findings highlight the need for continuing dental training programs, provision of oral

health supplies and standardized evidenced based oral health protocols to assist hospital nurses in providing consistent and appropriate oral health care to patients who are hospitalized. Implementing such strategies could go a long way in improving the general health and wellbeing of patients.

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Appendix**Oral healthcare Practice, Awareness, Attitude study on Nurses in tertiary care setting of South India (Oral PAAN study)****Pro forma**

CODE NUMBER :

Name :

Age :

Sex : Male / Female

Mobile number :

Nurses' characteristics

Working experience as a nurse : ----- years.

Working experience in ICU : Present / Absent

Position :

First nursing qualification :

Highest nursing qualification :

Department :

KNOWLEDGE, ATTITUDE AND PRACTICE QUESTIONNAIRE**Instructions to the participant**

1. Please use pen for marking the answers. Do not use pencils
2. Avoid over writing
3. Kindly answer all questions appropriately
4. If in doubt, please contact us before answering.
5. Return the responses along with envelop given to you.
6. Kindly do not damage the coding.

CODE NUMBER:Knowledge

| | | | |
|--|---|----|----------|
| 1. Have you received any training in the assessment and provision of oral care? | yes | No | Not sure |
| 2. When did you get the training? | 1.Part of nursing degree 2.During post graduation 3.Informal "on the job" training 4.Any other | | |
| 3. Is oral care essential in inpatients? | yes | No | Not sure |
| 4. Do you think that lack of oral hygiene may lead to oral and systemic disease? | yes | No | Not sure |
| 5. Which are the diseases that may worsen with poor oral hygiene | | | |
| 6. Which are the common medications that can interfere with oral health? | | | |
| 7. Which are the common recognizable oral infections in inpatients? | | | |
| 8. What are the common precautions you use to avoid cross infections? | | | |
| 9. Which all areas in the oral cavity need routine assessment? | | | |
| 10. What do you know about care of dentures? | | | |

Attitude

| Question | Strongly disagree | Somewhat disagree | Not agree / Disagree | Somewh at agree | Strongly agree |
|---|-------------------|-------------------|----------------------|-----------------|----------------|
| Nurse is the practitioner responsible for providing oral care in inpatients. | | | | | |
| I have adequate time to provide oral care at least once a day. | | | | | |
| I have been given adequate training in providing oral care | | | | | |
| Oral care is a very high priority for mechanically ventilated patients | | | | | |
| Providing adequate oral hygiene is a worthwhile use of time in inpatients | | | | | |
| Cleaning oral cavity is a very unpleasant task | | | | | |
| Oral cavity is difficult to clean | | | | | |
| The mouth of most of the ventilated patients gets worse no matter what I do | | | | | |
| I need better supply and equipment | | | | | |
| I think that the dentist is the only person who can help patients who have oral disease | | | | | |
| Brushing teeth is a very personal thing that you should not be expected to do for somebody else | | | | | |
| In my opinion, it is better to wait until patients have a problem before asking the dentist to see them | | | | | |

Practice

| | | | |
|--|-----|----|----------|
| 1.Do you assess oral care need of inpatients within 24 hours of admission? | Yes | No | Not sure |
| 2.Do you record /document the oral findings in nursing notes | Yes | No | Not sure |
| 3.Do you have a formal unit protocol for assessment of oral care needs | Yes | No | Not sure |

| | | | |
|--|---|----|----------|
| 4. Do you have a formal unit protocol for provision of oral care needs | Yes | No | Not sure |
| 5. How frequently do you provide oral care in inpatients | Not at all Once per day Twice per day Three times per day Any other | | |
| 6. How long do you spend on providing oral care at each sitting? | No time spent Less than one minute Between 1 to 5 minutes Between 5 and 10 minutes Any other | | |
| 7. Which is the common technique used for oral hygiene procedure? | Nil Forceps and cotton Forceps and gauze Spatula and gauze Adult Tooth brush Pediatric tooth brush Tooth paste Mouth wash Any other | | |
| 8. Which are the common practices in oral care | Nil Brushing of teeth Brushing of gums Brushing tongue Cleaning of dentures Cleaning bite block\ Lubricant applied to lips Mouthwash- Chlorhexidine Povidone iodine Sodium bicarbonate Saline Water Antibiotic gel/paste Any other | | |
| Do you think that your hospital supplies adequate resources for the provision of oral care | Yes | No | Not sure |