

**ORIGINAL ARTICLE****ORAL ASSESSMENT AND NURSING INTERVENTIONS AMONG NIGERIAN NURSES-KNOWLEDGE, PRACTICES AND EDUCATIONAL NEEDS****Azodo CC<sup>1</sup>, Ezeja EB<sup>2</sup>, Ehizele AO<sup>1</sup>, Ehigiator O<sup>3</sup>****ABSTRACT**

**BACKGROUND:** Assessment of oral condition, oral care, and informing the attending doctor of unusual oral findings for possible consultation or referral to a dentist are the advocated roles of hospital nurses. The objective of the study was thus to assess the roles of Nigerian nurses in the assessment of oral conditions of hospitalized patients.

**METHODS:** This questionnaire-based cross-sectional survey of all nurses caring for hospitalized patients in the University of Benin Teaching Hospital was conducted in the first half of 2010.

**RESULTS:** Of the 384 studied participants, 94.3% considered oral care as an important aspect of nursing care and 73.4% had oral health component in their nursing school curriculum. A total of 80.7% reported suspicious and abnormal findings in hospitalized patients to the attending doctor. Amongst the respondents, 38.0% reported ability to conduct good oral tissue examination. Only 28.1% demonstrated good knowledge of common oral diseases. Three-quarters (73.4%) thought that it is compulsory for nurses to assess the oral condition of hospitalized patients. The 67.7% and 21.9% of the respondents did the assessment on admission and discharge respectively. The majority (90.1%) desired training on oral care of hospitalized patients.

**CONCLUSION:** There is a need to improve the skill and competence of nurses in the assessment of oral condition to make them a substantive partner in the oral care of hospitalized patients.

**KEYWORDS:** hospitalized patients, nurses, oral condition, roles

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**INTRODUCTION**

Treatment of the medical, surgical, or dental conditions and administration of medications are the primary reasons for hospitalization (1-4). However, hospitalization may serve as an avenue for health information, education and communication (IEC), reinforcement of positive health practices, and total reorientation toward a healthy lifestyle. Total healthcare encompassing oral care, is the standard care during hospitalization. Oral care of hospitalized patients

has implications for nutrition, recovery, patient outcome and prevention of infections (5-8).

Hospitalization may serve as the first opportunity for the assessment of the oral condition of an individual in developing countries like Nigeria where preventive dental visits are low (9). Assessment of oral condition, oral care, and informing the attending doctor of abnormal oral findings for possible consultation or referral to a dentist are the advocated roles of hospital nurses.

The shortage of oral healthcare manpower in Nigeria, relatively a high number of nurses with their long hours of contact with hospitalized

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patients and their caring nature, characteristically position them as non-dental professionals that can effectively deliver primary and secondary preventive oral health roles.

The multidisciplinary collaboration in oral health care delivery can yield positive and commendable results if adequately implemented. Assessment of the oral cavity reveals a patient's hydration state, general physical condition, overall health status, and above all, the general dental health which can lead to the identification of periodontal disease, thrush, oral cancers, and stomatitis. Identification of incipient lesion and assurances of favorable outcome can motivate a hospitalized patient in subsequently seeking dental care.

Detection of suspicious lesions early may contribute to prompt treatment and care. However, there is a scarcity of literature on the assessment of oral conditions of hospitalized patients by nurses in developing countries. The hospital setting serves as good opportunity for oral assessment as it eliminates the principal barriers to dental care like access, cost, fear, and someone's belief that he/she does not need to see a dentist. The objective of the study was to assess the roles of Nigerian nurses in the assessment of oral conditions of hospitalized patients.

## MATERIALS AND METHODS

After approval was obtained from Ethics Committee of the University of Benin Teaching Hospital, a questionnaire-based cross-sectional survey of all nurses caring for hospitalized patients in the University of Benin Teaching Hospital was conducted in the first half of 2010. Exclusion criteria were nurses working in outpatient clinics, immunization units, and administrative units of the hospital. Informed consent was obtained from each participant prior to the survey, and participation was voluntary.

The self-administered questionnaire was hand-delivered and collected in unmarked envelope to maintain the anonymity of the survey. It was a two-page questionnaire which was divided into five sections. The first section was

used to obtain information on demographic characteristics like age, gender, hospital ward, and professional experience. The second section was employed to collect data on knowledge of common diseases and quality of oral examination. The knowledge of common oral diseases was assessed and graded as 'good', 'fair', or 'poor'. The enumeration of less than three common oral and dental diseases was assigned poor knowledge. The enumeration of three to five oral and dental diseases was assigned 'fair knowledge'. The enumeration of more than five oral and dental diseases was assigned 'good knowledge'. The quality of oral examination was also assessed and graded as 'good', 'fair', or 'poor'. The third section was meant for the assessment of oral conditions of hospitalized patients. The assessment of the oral conditions of hospitalized patients and documents during admission and discharge was done. The tendency to report suspicious and abnormal findings among hospitalized patients was assessed with a 'yes' or 'no' response. The fourth section was composed of four questions: 1) Was oral health a component of your nursing school curriculum? 2) Do you consider oral care as an important aspect of nursing care? 3) Do you desire more information on oral assessment of hospitalized patients? 4) If 'yes', in what form would you prefer it? The fifth section was composed of three questions. The first question was prepared to assess the frequency of contact with denture wearing hospitalized patients. The remaining two questions assessed denture care and denture advice for hospitalized patients. The data were analyzed using descriptive statistics with statistical Package for the Social Sciences (SPSS) version 17.0 software, and the results were presented as frequencies and percentages in tabular form.

## RESULTS

A total of 384 nurses caring for hospitalized patients filled out the questionnaire giving a 96% response rate. The majority of the participants were females, aged 21-50 years and they were working in surgical wards (Table 1).

**Table 1: Demographic characteristics of the respondents**

	Age (years)					Total
	<21	21-30	31-40	41-50	>50	
Gender						
Female	6	102	118	114	22	362
Male	0	6	4	8	4	22
Years of experience						
≥10	0	2	66	116	26	210
<10	6	106	56	6	0	174
Hospital ward						
Surgical	0	38	52	38	10	138
Medical	0	34	34	32	4	104
Obyn & Gynaecology	0	10	22	26	4	62
Paediatric	6	12	10	4	4	36
New accident	0	8	2	12	2	24
Psychiatric	0	2	2	8	2	14
Intensive care	0	4	0	2	0	6

A total of 28.1% of the participants had good knowledge of common oral diseases (Table 2).

Table 2: Knowledge of common oral diseases among the respondents.

Level of knowledge	Frequency (n)	Percent (%)
Good knowledge	108	28.1
Fair knowledge	72	18.8
Poor knowledge	204	53.1
<b>Total</b>	<b>384</b>	<b>100.0</b>

Amongst the respondents, 38.0% self-reported the ability to conduct a good oral tissue examination (Table 3).

Table 3: Self-reported quality of oral examination among the respondents.

Quality of examination	Frequency (n)	Percent (%)
Good examination	146	38.0
Fair examination	40	10.4
Poor examination	176	51.6
<b>Total</b>	<b>384</b>	<b>100.0</b>

A total of 80.7% of the participants reported suspicious and abnormal findings in hospitalized patients to the attending doctor. Three-quarters (73.4%) thought that it is compulsory for nurses to assess the oral condition of hospitalized patients. The 67.7% and 21.9% of respondents did the assessment on admission and discharge

respectively (Table 4). The majority (94.3%) considered oral care as an important aspect of nursing care but only 73.4% had oral health component in their nursing school curriculum. The majority (90.1%) desired more information on oral assessment of hospitalized patients (Table 4).

Table 4: Perceived needs and assessment of oral conditions of hospitalized patients among the Respondents.

Question	Yes (%)	No (%)
Is oral health a component of your nursing school curriculum?	73.4	26.6
Do you consider oral care as an important aspect of nursing care?	94.3	5.7
Do desire more information on oral care of hospitalized patients?	90.1	9.9
Is it compulsory for nurses to assess oral conditions of hospitalized patients	73.4	26.6
Do you assess of the oral condition of hospitalized patients during admission	67.7	32.3
Do you assess of the oral condition of hospitalized patients during discharge	21.9	78.1
Do you report suspicious and abnormal findings in hospitalized patients	80.7	19.3

The most preferred modes of training were seminar and workshops (Table 5).

Table 5: Preferred mode on the training on assessment oral health status among the respondents.

Mode of training	Frequency (n)	Percent (%)
Seminar	188	54.3
Workshop	90	26.0
Classroom lecture	26	7.5
Pamphlet/posters	26	7.5
Multiple modes	16	4.6
<b>Total</b>	<b>346</b>	<b>100.0</b>

Although only 15.1% attended to denture wearing patients on a regular basis (Table 6), more than three-quarters rendered good denture hygiene and advice: specifically, 93.7 % clean patient's mouth

without artificial teeth inside the mouth, and 92.2 % do not allow patient to sleep with artificial teeth inside their mouth.

Table 6: Frequency of contact with denture wearing patients among the respondents.

Timing	Frequency (n)	Percent (%)
Never	90	23.4
Rarely	156	40.6
Sometimes	62	16.1
Often	18	4.7
Regularly	58	15.1
<b>Total</b>	<b>384</b>	<b>100.0</b>

## DISCUSSION

The majority of the nurses were aged between 21 and 50 years. This falls within the active age range in the Nigerian public service sector. There were more nurses who had worked in surgical ward because the studied hospital had more surgical wards, some being for general surgical problems while others for specialized surgical problem like ophthalmic and neurosurgical conditions.

Oral care is a component of total healthcare and this explained why the majority of the respondents in this study considered oral care as an important aspect of nursing care. A comprehensive and systematic assessment of the oral cavity should be performed on the initial and subsequent assessment of all patients regardless of their clinical status. This oral assessment is expected to occur on admission as it is needed to identify and initiate interventions and evaluate progress.

Patient assessment must focus on the patient's ability to perform oral hygiene, including both brushing and dental flossing. Early assessment and intervention reduces the incidence of infection and oral complications, while inadequate assessment and poor knowledge leads to uninformed choice of equipment and techniques of oral care (10). Proper assessment of the oral cavity is vital; a well-planned, multidisciplinary and regularly evaluated approach to mouth care is essential (11).

In this study, three-quarters (73.4%) of the participants thought that it is compulsory for nurses to assess the oral condition of hospitalized patients. The assessment of oral condition was performed by 67.7% of the respondents on patient admission, while 21.9% of the respondents performed it on patient discharge. However, only 38.0% of the participants reported that they can conduct oral examinations. The low proportion (28.1%) of the respondents that exhibited good knowledge of common oral diseases and the non-inclusion of oral health in some nursing school curricula may account for the level of adherence. This collaborated with another study that attributed deficient assessment to inadequate training or skill in this task and lack of motivation among nurses (12). However, the positive attitude and intention of nurses to serve as partners in oral care delivery of hospitalized patients may be utilized by providing the necessary training and skill. The desire for more information on oral care of hospitalized patients among the majority of the respondents mostly in the form of seminar and workshops is a demonstration of commitment and interest. An earlier study on surgical and medical wards in a district general hospital in Ireland indicated the need for educational updates for qualified nurses, adequate supply of oral care equipment and promotion of formal assessment tools usage in the hospital setting (13). A brief educational intervention among nurses resulted in short-term improved performance of oral health assessments. However, this, associated with increased invisibility of dental staff in the facility, is also a contributory factor (14, 15).

Proper assessment and early intervention often prevent serious complications before they can compromise therapeutic outcomes. Nurses are able to recognize early changes in patient status and problems. In this study, a high proportion (80.1%) of the participants reported suspicious

and abnormal findings in hospitalized patients to the attending physician/surgeon. This would possibly lead to early consultation with a dentist and delivery of prompt treatment and care which would obviate the adverse consequences of delayed presentation. It is also contributory to eliminating barriers to routine dental examination and preventive assessment which are physical, personal, and economic issues.

Care for denture affects the functions and desired benefits among wearers. Denture wearers are prone to developing complications related to improper use of denture and inadequate oral hygiene which include stomatitis, periodontitis, and rarely to death. Proper denture advice is aimed to remind or assist hospitalized patients to remove their dentures at night in order to prevent bacterial accumulation and the development of oral mucosal lesions. Although, the regular contact among hospitalized patients with denture was low; the denture hygiene and advice was good.

In conclusion, there is a need to improve the skill and competence of nurses in the assessment of oral conditions to make them a substantive partner in oral care of hospitalized patients. The mode of the training could be in the form of seminars and workshops.

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