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ORIGINAL ARTICLE

CC Azodo
EB Ezeja
JO Omoaregba
BO James

Oral health of psychiatric patients: the nurse's perspective

Abstract: *Objective:* To assess nurses' perspectives on character, prevalence and cause of oral diseases among psychiatric patients and also their approach and suggestions in relation to the care of oral problems. *Materials and Methods:* A questionnaire-based cross-sectional survey of all cadres of nurses (n = 136) at the Federal Psychiatric Hospital, Benin City, Nigeria, was conducted between December 2010 and January 2011. *Results:* Two-thirds (67.6%) of the respondents reported that psychiatric in-patients in comparison with the general population have a higher occurrence of oral and dental problems. Commonly cited reasons for the poor oral health of patients included as follows: sedation for long periods, lack of care by family, psychopathological symptoms, poor access to dentists and lack of oral hygiene advice. The common oral health complaints received by the respondents included toothache, pain from the gums and inability to open the mouth. Majority (91.4%) of respondents claimed to be presently involved with oral care of psychiatric in-patients but oral care delivery is however bedevilled with lot of barriers like uncooperativeness of patients and lack of oral care materials. *Conclusion:* Oral complaints received are frequent and numerate with limited palliative action rendered. Attaching dentists to psychiatric hospitals and regular training of psychiatric nurses on oral care delivery are recommended to comprehensively cater for the oral health problems of psychiatric in-patients.

Key words: nurses; oral health; perspective; psychiatric patient

Authors' affiliations:
CC Azodo, Department of Periodontics, University of Benin, Benin City, Edo State, Nigeria
EB Ezeja, Department of Preventive Dentistry, University of Benin Teaching Hospital, Benin City, Edo State, Nigeria
JO Omoaregba, Department of Clinical Services, Federal Psychiatric Hospital, Benin City, Edo State, Nigeria
BO James, Department of Clinical Services, Federal Psychiatric Hospital, Benin City, Edo State, Nigeria

Correspondence to:
CC Azodo
UBTH, Periodontics
New Dental Complex
P.M.B. 1111 Ugbowo
Benin City 300001
Nigeria
Tel.: +2348034051699
E-mail: clementazodo@yahoo.com

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Introduction

Oral diseases particularly periodontal disease is common in Nigeria as exemplified by prevalence rates of 15–58% for periodontal disease with deep periodontal pocket among individuals aged above 15 years (1). The mean decayed missing filled teeth (DMFT) is below 4 in most communities which varied from higher values in urban areas to lower values in rural areas signifying low caries experience (1). Despite the low caries prevalence, the restorative index is extremely low with most carious teeth, unrestored (1). The poor oral health awareness plus scanty and unequally distributed oral health services available mainly in urban areas are contributory to increasing trends of oral diseases.

In comparison with the general population, psychiatric patients have poor oral health and dental health behaviours. This has been documented in several studies (2–11) and can be attributed to the fact that psychiatric disorders and its treatment negatively affect oral health. Oral care has also remained largely an unmet treatment need among psychiatric patients (7, 12). Psychiatric patients with more hospital admissions

are more likely to report dental symptoms and indulge in irregular dental habits (3). Lack of preventive care over the length of hospitalization because of the unavailability of personnel is a contributing factor (13). Patients at the psychiatric hospital without a full-time dental care facility are also more likely to have had higher DMFT scores, and infrequent dental visits (14).

Increasing length of hospitalization (7) as well as a longer illness episodes (8) is positively correlated with worsening periodontal health and caries, respectively. The extent of dental disease among inpatients as measured by both the simplified oral hygiene index (OHI-S) and DMFT scores was directly related to the length of hospitalization (15). Hede (1995a) (5) in his study, reported that the presence of actual decayed surfaces was associated with the neglect of tooth brushing, subjective symptoms of xerostomia and participation in the hospital dental programme.

Despite the fact that the psychiatric in-patient setting serves as an important opportunity for oral health promotion and intervention, oral care has remained a neglected component of in-patient care (14). Impediments to optimum oral hygiene practices among individuals with mental illness include symptoms like fatigue and lack of motivation on the one hand and treatment side effects like xerostomia and sedation on the other. It is therefore important that mental health professionals give considerable attention to the promotion of preventive oral health habits among psychiatric patients.

Registered nursing is a full-time 3-year training programme after secondary school (high school) education which may be followed with specializing in different areas like psychiatric, ophthalmic, perioperative and intensive care nursing, and nursing education is regulated by Nursing Council of Nigeria. The care of the mouth which is usually performed as part of the routine general hygiene of a patient is considered an important nursing procedure.

The aim of this study was to assess nurses' perspective on character, prevalence and cause of oral diseases among psychiatric patients and also their approach and suggestions in relation to the care of the oral problems.

Materials and methods

Study setting

This study was conducted at the Federal Neuropsychiatric Hospital, Benin City. The facility is a regional 220-bedded tertiary hospital with approximately 150 registered nursing staff, 20 doctors (psychiatrists and trainees) and other complement of staff; pharmacists, occupational therapists and social workers.

Subjects

This cross-sectional survey included all cadres of registered nursing staff at the hospital.

Instrument

A self-administered 18-item questionnaire was designed by the authors for data collection. The questionnaire was pretested on nurses caring for psychiatric patients at the University of Benin Teaching Hospital also in Benin City. For each question item, a combination of open- and closed-ended options was provided to allow respondents an unlimited range of responses. The respondents were instructed to select more than one option if applicable. The questionnaire was used to obtain information on demography, provision of oral care and training, nature of oral health complaints received and their frequency, actions taken to ameliorate these complaints, oral care methods employed and barriers to rendering oral care to hospitalized patients.

Procedure

The questionnaires were administered to nurses at their duty post and informed consent obtained from the participants before the survey. At each ward, the pooled questionnaires were placed in designated labelled empty envelope. The envelopes were collected by the researchers at the end of 1 week.

Ethical concerns

Ethical approval was obtained from Ethics Committee of Federal Psychiatric Hospital, Benin City, Nigeria. Written informed consent was obtained from nursing staff who agreed to participate in the study. Anonymity was assured all respondents.

Data analysis

Data obtained were analysed using the Statistical Package for Social Sciences (SPSS version 17.0; SPSS Inc., Chicago, IL, USA) and summarized using descriptive statistics and presented as frequencies and percentages. Comparisons between some categorical and continuous data were undertaken using the chi-square and independent t-tests, respectively. Level of significance was set at $P < 0.05$.

Results

Of 152 questionnaires administered to the nurses, 136 questionnaires were filled and returned giving a 89.5% retrieval rate. Eighty-one (59.6%) of the respondents were <41 years of age, with a majority (64.7%) being of the female gender. More than half (60.3%) of the respondents had ≥10 years working experience (Table 1). The mean working years of experience was significantly higher among men (17.25 ± 10.05 years) in comparison with the women (10.47 ± 7.05 years) ($P \leq 0.001$).

A total of 128 (94.1%) of the respondents reported assisting hospitalized psychiatric patients in cleaning their mouth while 112 (82.4%) of the respondents admitted helping patients in caring for their artificial teeth. The tooth cleaning materials reported were toothbrush, toothpaste, gauze, mouthwash and

Table 1. **Socio-demographic characteristics of respondents**

Variable	*n* (%)
Age class (years)	
≤30	20 (14.7)
31–40	61 (44.9)
41–50	38 (27.9)
>50	17 (12.5)
Gender	
Male	48 (35.3)
Female	88 (64.7)
Duration of working experience (years)	
<10	53 (39.3)
≥10	83 (60.7)
Receipt of training on mouth care delivery	
Yes	92 (67.6)
No	44 (32.4)
Total	136 (100.0)

warm saline mouth bath. Eighty-five (62.5%) of the respondents reported impediments in rendering oral care to their patients. Two-thirds (67.6%) of the respondents had not received any training on mouth care delivery for psychiatric patients, after qualification. A majority, $n = 127$ (93.4%), thought that regular training on meeting the oral health needs of patients is required and 97 (71.3%) thought it necessary for a dentist to be attached to the psychiatric hospital. Delivery of oral care was not impeded among 51 (37.5%) of the respondents. Eighty-five (62.5%) reported different barriers. Identified barriers among the respondents in this study were uncooperative patients, lack of cleaning materials, communication problems, lack of time, inadequate number of nursing staff and perceived lack of benefit to the patient (Table 2).

Almost a third (67.6%) of the respondents reported that psychiatric patients in comparison with the general population have higher prevalence of oral and dental problems. Nursing staff who were women ($X^2 = 4.403$, $P = 0.04$), and aged over 40 years ($X^2 = 3.78$, $P = 0.05$), reported that oral diseases occur commonly among psychiatric patients than male nurses and

Table 2. **Respondents identified barriers to rendering oral care to patients***

Barriers	Frequency (no.)	Percent (%)
Uncooperative patients	63	74.1
Lack of materials	37	43.5
Patient refusal of oral care	26	30.6
Communication problems	23	27.1
Patient refusal to open mouth	20	23.5
Inadequate number of nurse	10	11.8
Lack of time	9	10.6
Patient biting on toothbrush	5	5.9
Perceived lack of benefit to patient	1	1.2
Patient have more pressing problems	1	1.2
Unspecified	2	2.4

*Respondents received more than one barrier.

Table 3. **Respondents perceived reasons for increased oral and dental problems among psychiatry patients***

Reason	Frequency (no.)	Percent (%)
Sedation for long period	52	56.5
Lack of care by family and relations	17	20.7
Mental illness	15	16.3
Poor access to dentist	12	13.0
Lack of advice on oral hygiene	12	13.0
Dry mouth	7	7.6
Lack of fund	5	5.4
Inability to maintain good oral hygiene	2	2.2
Unspecified	2	2.2

*Respondents reported more than one reason.

aged ≤40 years. No significant relationship was observed when duration of working experience was compared ($X^2 = 0.011$, $P = 0.92$). The major reasons given for higher occurrence of oral problems among psychiatric patients were sedation for long periods, lack of care by family and relations, symptoms of mental illness, poor access to dentists and lack of advice on oral hygiene (Table 3). A total of 80.1% of the respondents had received oral health complaint from patients and 19.9% had not received oral health complaint from patients. The complaints received by the respondents from psychiatric in-patients include toothache, pain from gums and inability to close the mouth. The frequency of oral health complaints reported to the respondents by the patients was as follows: always (8.8%), sometimes (25.7%), occasionally (28.7%), rarely (26.5%) and never (10.3%) (Table 4). The most commonly taken action was recommending warm saline mouthwash for patients with complaints (Table 5). Reduction in drug dose (41.2%) and frequent sipping of water (30.9%) were the most common reported ways of specifically managing xerostomia (Table 6).

Discussion

Oral care is an important nursing procedure that is expected to be performed consistently as part of the routine general hygiene of a patient. The importance of adequate oral care in facilitating the ability of hospitalized patients to eat and talk comfortably, feel happy with their appearance, maintain

Table 4. **Oral health Complaint reported by the patients to the respondents***

Complaint	Frequency (no.)	Percent (%)
Toothache	58	53.2
Pain from gum	37	33.9
Inability to open mouth	25	22.9
Mouth odour	21	19.3
Hole on the tooth	17	15.6
Dry mouth	13	11.9
Ulcer	4	3.7

*Respondents received more than one complaint.

Table 5. **Respondents recommended action regarding oral health complaint by the patients***

Action taken	Frequency (no.)	Percent (%)
Advice on warm saline mouth bath (WSMB)	51	44.3
Brought to the physician attention	39	33.9
Advice patient on toothbrushing	23	20.0
Recommended referral to dentist	22	19.1
Analgesics	5	4.3
Advice patient to start using chewing stick	5	4.3
Recommended chewing gum	2	1.7
Advice to take more fluid	1	0.9
Advice to avoid toothpick use	1	1

*Respondents recommended more than one action.

Table 6. **Respondents Recommendations for patients with dry mouth**

Recommendation	Frequency (no.)	Percent (%)
Don't know	7	5.1
Reduction of drug dose	56	41.2
Frequent sipping of water	42	30.9
Chewing gum	9	6.6
Saliva substitute	5	3.7
Cholinergic drug	2	1.5
Multiple	10	7.4
Unspecified	5	3.7
Total	136	100.0

self-esteem and normal standards of hygiene cannot be overemphasized (16, 17). In this study, majority of the respondents performed oral care for psychiatric in-patients with or without dentures using methods ranging from toothbrush, toothpaste, gauze, mouthwash and warm saline mouth bath. This highlights the vital role nurses play in providing effective oral care and promoting oral hygiene among hospitalized patients. The routine use of gauze in the oral care of in-patients is not recommended except when toothbrushing is not possible (18) and mouthwash cannot be used because it is ineffective in removing debris (19). The delivery of oral care by respondents in this study was limited by barriers like the uncooperativeness of patients and a lack of oral care materials, and this was similar to the findings of Ezeja *et al.* 2010 (20) and Kambhu and Levy (1993) (21) among nurses in another tertiary hospital in Nigeria and directors of nursing of intermediate care facilities in Iowa, respectively.

The non-receipt of training on mouth care delivery for psychiatric patients as collaborated with previous studies (22, 23) may explain their inability to overcome these patient-related barriers. This also explained why a majority thought that they require regular training on the job to satisfy the oral health needs of their patients. The lack of oral care materials may be ascribed to the fact that relatives ascribe less importance to the oral health needs of their relatives in comparison with the significant or distressing behavioural change that an episode of mental illness warranting admission brings. Furthermore, the non-provision of oral hygiene materials by hospital authorities is a cause for concern. Moving forward, the provision of oral care materials for in-patients can be made compulsory as part of items to be provided by relatives, or incorporated into hospital bills.

In this study, a majority of the respondents reported that psychiatric patients in comparison with the general population have a higher prevalence of oral and dental problems. The poorer oral health and dental health behaviour is in tandem with the fact that psychiatric disorders and its treatment negatively affect oral health. The commonly cited reasons in this study were prolonged sedation, lack of care by family, poor access to dentists and symptoms of mental illness. Prolonged sedation with anti-psychotic drugs and its inherent anti-cholinergic effects result in decreased salivary quantity and quality (14). Decreased saliva obviates its protective role leading to oral and dental diseases. Some symptoms of mental illness such as fatigue, loss of interest in self and lack of motivation are impediments to optimum oral hygiene practice. It therefore means that in some cases, the responsibility of maintaining proper hygienic practices is dependent on relatives and/or mental health professionals. The financial burden, stigma and discrimination associated with mental illness are possible reasons why the respondents believed that oral diseases in psychiatric patients can be ascribed to lack of family care. Poor access to dentists, which is prevalent in Nigeria, was also proffered as an explanation as to why oral care has remained largely an unmet treatment need among psychiatric patients (7, 12).

In this study, the respondents reported that toothache and pain from gum were the major oral health complaint among the psychiatric patients. Others include inability to open the mouth, hole on the tooth, mouth odours and ulcers. The inability to open the mouth may be a side effect of antipsychotic drugs while the other complaints could be ascribed to the poor oral hygiene and decreased salivary flow from the anti-cholinergic effects of these medications. The variety and frequency of oral and dental problems described by respondents which was 50% (sometimes or occasionally) highlight the magnitude of suffering that in-patients undergoing treatment experience. The studied nursing staffs opinionated that hospitalized patients with mental illness have extensive untreated dental disease with unmet dental and prosthetic needs and their opinion tallied with clinical findings among psychiatric patients in Italy (7), Spain (13) and Turkey (24). The frequency and the numerate oral and dental problems received by the respondents may have led the respondents into thinking it necessary to attaching dentist to the psychiatric hospital. Access to dentists is essential for advice, support with individual care and treatment when necessary. The role of this oral health expertize in the comprehensive care of oral and dental problems of hospitalized patients will help in reducing suffering, hospital stay and improving the overall quality of life as on-site dental services have been found to be more effective than outsourced services in improving dental health (12). A dedicated in-patient dental clinic for an inner-city in-patient psychiatric population in the United Kingdom also resulted in improvements in patients'

perception of oral health, behaviour directed at oral hygiene and knowledge of accessing services (25). A previous study has suggested the development of an integrated mental health and dental care service with emphasis on the prevention of dental problems, although this was for older people (11). However, other health professions could become as good advisers as dentists if they get knowledge and is a valuable strategy where there a lack of dentists. In this study, the palliative care recommended for the patients was majorly warm saline mouthwash. The relief from the soothing and bacteriostatic effect may have encouraged its recommendation. Less number of nurses recommended referral to dentist for patients with oral problems and brought the attention of such to doctor who prescribed antibiotics or analgesics. This suggests that oral health problems of hospitalized psychiatric patients are not receiving enough attention as attending nurses may have accorded it, a low priority. However, resource availability, institutional policy and overall treatment goal may have influenced the actions of the respondents. Immediate reporting of patients' oral health problems to the physician and referral to the dentist for comprehensive oral health management should be recommended. Further studies to determine how effective the recommended treatment among the respondents has been in control the oral health problem of in-patients are needed.

Conclusion

Nurses contribute enormously to oral care delivery of in-patients with or without dentures, but face several barriers. Oral complaints received are frequent and numerate with limited palliative action rendered. The introduction of regular training on oral care delivery among nurses and attachment of dentist to comprehensively care for the oral health problem of hospitalized psychiatric patients would be instrumental to meeting the oral health needs of this group.

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