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Current Status of Oral Care Provided by Psychiatric Nurses for Hospitalized Patients

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Abstract: *The present study aimed to clarify the actual status of oral care administered by psychiatric nurses to hospitalized patients. We investigated psychiatric nurses in the present study. A total of 129 valid responses were analysed. The results revealed that most psychiatric nurses felt the importance of oral care. Approximately 80% of psychiatric nurses self-evaluated the oral care being performed as insufficient. Approximately half self-evaluated the oral care as not conducted in collaboration with dentists. Psychiatric nurse who worked in collaboration with dentists cited 'poor oral condition' and 'insufficient knowledge' as reasons for insufficient oral care, suggesting that collaborating with dentists may lead to an awareness of insufficient oral care. Along with the enhancement of collaboration with dentists, our results suggest that psychiatric nurses need to take steps to improve the quality of oral care.*

Keywords: *Oral care, Psychiatric nurses, Hospitalized patients, Current status, Dentists*

1. Introduction

Oral care is classified as organic oral care to maintain a clean oral cavity or functional oral care to maintain or restore oral function [1]. Oral care is important to maintain the health of the oral cavity [2,3]. Oral health is involved in not only physical health of ingesting nutrition but also psychological and social health such as eating pleasure and communication. In recent years, research has elucidated the relationship between the oral cavity and general health [4]; it has been shown that oral health has effects concerning prevention of aspiration pneumonia [2], prevention of endocarditis [3], activation of the brain [5], and so on. Under the revision of medical treatment fees, since 2012, it has become possible for medical fees related to the prevention of postoperative complications such as oral function management coordinated by a medical or dental department to be covered [6].

With the growing importance of oral health concerns, individuals with mental disorders have problems with oral hygiene and oral function due to a decrease in social life skills associated with psychological symptoms and side effects of pharmacotherapy such as psychotropic drugs [7]. The oral care provided by psychiatric nurses [8] and 'specialized oral care' provided by dentists appears to be effective for oral health problems [9]. Kouzuma et al. previously showed that collaboration between psychiatric nurses and dentists improves the maintenance of a clean oral environment and preservation of mastication and swallowing functions in individuals with mental disorders, thereby improving the favourability of dental examination [10]. Based on the above findings, it appears that, when psychiatric nurses administer oral care, collaboration with a dentist improves the quality of the oral care.

The present study aimed to clarify the actual status of oral care administered by psychiatric nurses to hospitalized patients. Moreover, because it is effective for psychiatric nurses to collaborate with dentists [8,10-13], the state of collaboration is also included in the actual state of oral care. In Japan, no surveys have been conducted on the current status of psychiatric nurses, as in the present study. It is our hope that the results of the present study will become a resource for initiatives to improve the quality of oral care practiced by psychiatric nurses.

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2. Research Methods

1) Study Participants

The participants were 190 psychiatric nurses who worked in psychiatric wards from two psychiatric hospitals.

2) Data Collection Methods

The nursing chief of the psychiatric ward where the study participants worked explained the purpose, significance, research methods, and ethical considerations of the present study, and consent was obtained. We distributed survey forms and questionnaires to study participants via the nursing chief. The study participants were told in writing the purpose, significance, methods, and ethical considerations of the present study as well as contact information concerning the study and were given a guarantee of freedom to withdraw from the study at any time and told that submission of the survey form would be regarded as consent to participate. After the questionnaires were completed, the forms were individually collected and sealed in envelopes, and participants were asked to place the questionnaire in a collection box inside of the hospital. The responses to the questionnaire were anonymous. We have done enough ethical consideration and researched it. The present study was approved by the institutional review board of Fukuoka Dental College/Fukuoka College of Health Sciences (approval no. 290). The period of investigation was March 9-31, 2016.

3) Investigation Items

The investigation items of oral care performed by psychiatric nurses on hospitalized patients were examined by the researchers based on previous studies [10,14,15]. Under supervision from a dentist or dental hygienist, 'importance of oral care' and 'self-evaluation of oral care being performed' were selected. We investigated the reasons why oral care could not be sufficiently performed. There were multiple response items concerning the reason oral care could not be sufficiently performed: 'refusal by patient', 'refusal by family members', 'poor oral status', 'insufficient goods', 'problems related to expenses', 'no time', 'insufficient human resources', 'insufficient knowledge', 'undeveloped techniques', and 'no system of cooperation with other professions'.

The Dentist Collaboration Scale developed by researchers was used to examine collaboration with dentists [16]. The Dentist Collaboration Scale is a self-assessed measure of collaboration with dentists by ward nurses with established reliability and validity. The scale consists of 10 items and three factors; scores are made using a five-point scale (often 4-0 points), and a higher score indicates a higher degree of collaboration. The total score ranges from 0 to 20 points. The factors that were self-evaluated concerning collaboration in providing oral care were as follows: Factor 1 (Exchange of opinions on oral care), four items (0-16 points); Factor 2 (Sharing information concerning patients and their family members), four items (0-16 points); and Factor 3 (Issues regarding collaboration), which indicates the desire for self-evaluation and collaboration concerning tasks for future oral care, two items (0-8 points).

4) Data Analysis Methods

Statistical analytical software (SPSS Version23.0J for Windows) was used to analyse the obtained data. We analysed the investigation items concerning oral care administered by psychiatric nurses to hospitalised patients and the Dentist Collaboration Scale [16]. The results of a Kolmogorov-Smirnov test confirmed that there was no normality of data. For this reason, a nonparametric test was performed, but the results are expressed as mean value and standard deviation.

3. Results

1) Overview of Participants

Responses were received from 158 psychiatric nurses (return rate: 83.2%). A total of 129 valid responses were received (valid response rate: 81.6%). The study participants comprised 50 men and 79 women, mean age was 41.29 ±8.79 years, and mean number of years of nursing experience was 14.53 ±8.97.

2) Current Status of Oral Care

A total of 126 psychiatric nurses felt the importance of oral care (97.7%). Three did 'not really feel' the importance of oral care (2.3%). Regarding self-evaluation of oral care administered to hospitalized patients, of the psychiatric nurses who gave an evaluation that they could administer care, 1 responded that she could 'sufficiently perform' it (0.8%), and 24 responded that they 'could perform' it (18.6%) (total: 25 individuals; 19.4%). Of the psychiatric nurses who gave a self-evaluation of being unable to sufficiently perform oral care, 82 responded that their care was 'somewhat insufficient' (63.6%), and 22 re-

Table 1. The reason oral care could not be sufficiently performed

n = 129

Reason	n	%
Refusal by patient	68	52.7
No time	40	31.0
Undeveloped techniques	31	24.0
Insufficient goods	25	19.4
Insufficient human resources	24	18.6
Insufficient knowledge	23	17.8
Poor oral status	18	14.0
No system of cooperation with other professions	10	7.8
Problems related to expenses	5	3.9
Refusal by family members	0	0

Table 2. The dentist collaboration

n = 129

The dentist collaboration scale	No collaboration		Reported collaboration		mean ± SD
	n	%	n	%	
Dentist collaboration score	45	34.9	84	65.1	8.79 ± 9.03
Factor 1 (Exchange of opinions on oral care)	67	51.9	62	48.1	2.57 ± 3.35
Factor 2 (Sharing information concerning patients and their family members)	49	38.0	80	62.0	3.75 ± 4.19
Factor 3 (Issues regarding collaboration)	57	44.2	72	55.8	2.47 ± 2.64

sponded that it was ‘insufficient’ (total: 104 individuals; 80.7%) (Table 1).

The most common reason for being unable to perform sufficient oral care was ‘refusal by patient’ (68 individuals, 52.7%). This was followed by ‘no time’ (40 individuals; 31.0%), ‘undeveloped techniques’ (31 individuals; 24.0%), ‘insufficient goods’ (25 individuals; 19.4%), ‘insufficient human resources’ (24 individuals; 18.6%), ‘insufficient knowledge’ (23 individuals; 17.8%), ‘poor oral status’ (18 individuals; 14.0%), ‘no system of cooperation with other professions’ (10 individuals; 7.8%), and ‘problems concerning expenses’ (5 individuals; 3.9%). No psychiatric nurses gave the reason of ‘refusal by family members’.

The total mean score on the Dentist Collaboration Scale (dentist collaboration score) was 8.79 ± 9.03 points; 45 individuals (34.9%) reported no collaboration (0 points), and 84 (65.1%) reported collaboration. The total mean score of Factor 1 (Exchange of opinions on oral care) was 2.57 ± 3.35 points; 67 individuals (51.9%) reported no collaboration (0 points), and 62 (48.1%) reported collaboration. The total mean score of Factor 2 (Sharing information concerning patients and their family members) was 3.75 ± 4.19 points; 49 individuals (38.0%) reported no collaboration (0 points), and 80 (62.0%) reported collaboration. The total mean score of Factor 3 (Issues regarding collaboration) was 2.47 ± 2.64 points; 57 individuals (44.2%) reported no collaboration (0 points), and 72 (55.8%) reported collaboration (Table 2).

3) Reasons Why Oral Care Cannot Be Sufficiently Performed and Relationship with Coordination with Dentists (Table 3)

A relationship between the items of ‘poor oral status’ and ‘insufficient knowledge’ as reasons why oral care and collaboration with dentists was noted as follows. No relationship was noted for other items.

(1) Relationship between ‘poor oral status’ and dentist

Table 3. Reasons why oral care cannot be sufficiently performed and relationship with coordination with dentists

n = 129

Reason	Dentist collaboration	Presence of reason	mean ± SD	p
Poor oral status	Dentist collaboration score	Made a reason	13.89 ± 9.60	0.014*
Made a reason n=18		Not make it reason	7.96 ± 8.71	
Not make it reason n=111	Factor 1 (Exchange of opinions on oral care)	Made a reason	4.00 ± 3.61	0.042*
		Not make it reason	2.34 ± 3.26	
	Factor 2 (Sharing information concerning patients and their family members)	Made a reason	6.00 ± 4.65	0.028*
		Not make it reason	3.39 ± 4.01	
	Factor 3 (Issues regarding collaboration)	Made a reason	3.89 ± 3.20	0.031*
		Not make it reason	2.23 ± 2.48	
Insufficient knowledge	Factor 3 (Issues regarding collaboration)	Made a reason	3.70 ± 2.96	0.024*
Made a reason n=23		Not make it reason	2.20 ± 2.50	
Not make it reason n=106				

Mann-Whitney's U test *p < 0.05

collaboration

Regarding Dentist Collaboration Score, the total mean score of psychiatric nurses who gave the reason of 'poor oral status' was 13.89 ± 9.60 points, and the total mean score of psychiatric nurses who did not do so was 7.96 ± 8.71 points. A significant difference for collaboration with dentists was noted for individuals who gave the reason ($p < 0.05$). Regarding Factor 1 (Exchange of opinions on oral care), the total mean score of psychiatric nurses who gave a reason was 4.00 ± 3.61 points, and the total mean score of psychiatric nurses who did not do so was 2.34 ± 3.26 points. A significant difference in collaboration with dentists was noted for individuals who gave the reason of 'poor oral status' ($p < 0.05$). Regarding Factor 2 (Sharing information concerning patients and their family members), the total mean score of psychiatric nurses who gave a reason was 6.00 ± 4.65 points, and the total mean score of psychiatric nurses who did not do so was 3.39 ± 4.01 points. A significant difference in collaboration with dentists was noted for individuals who gave the reason ($p < 0.05$). Regarding Factor 3 (Issues regarding collaboration), the total mean score of psychiatric nurses who gave a reason was 3.89 ± 3.20 points, and the total mean score of psychiatric nurses who did not do so was 2.23 ± 2.48 points. A significant difference for collaboration with dentists was noted for individuals who gave the reason ($p < 0.05$).

(2) 'Insufficient knowledge' and relationship with coordination with dentists

With regard to Factor 3 (Issues regarding collaboration), the total mean score for the psychiatric nurses who gave 'insufficient knowledge' as the reason sufficient oral care could not be performed was 3.70 ± 2.96 points, and the total mean score for the 106 ward nurses who did not give a reason was 2.20 ± 2.50 points. A significant difference in collaboration with dentists was noted for individuals who gave the reason ($p < 0.05$).

'Insufficient knowledge' and Dentist Collaboration Score. No significant differences were noted for Factors 1 (Exchange of opinions on oral care) and 2 (Sharing information concerning patients and their family members).

4. Discussion

The results revealed that most psychiatric nurses felt the importance of oral care. Moreover, approximately 80% gave a self-evaluation that oral care being administered to hospitalized patients was insufficient. These results are almost the same as the study results for nurses working in hospitals with a department of dental surgery [15]. Psychiatric nurses feel the importance of oral care but appear to be in a situation in which they are unable to

provide sufficient oral care.

To improve the quality of oral care, it is effective for psychiatric nurses to collaborate with dentists [9,10], but the results of the present study revealed that approximately 30% of psychiatric nurses reported no collaboration with dentists. By factor also, approximately 50% reported no collaboration regarding Factor 1 (Exchange of opinions on oral care), approximately 40% for Factor 2 (Sharing information concerning patients and their family members), and approximately 40% for Factor 3 (Issues regarding collaboration). The results suggest the need for initiatives to allow psychiatric nurses to work in collaboration with dentists to improve the quality of oral care. A relationship between dentist collaboration and 'poor oral status' and 'insufficient knowledge' as reasons for insufficient oral care was noted. Psychiatric nurses who were working in collaboration with dentists mentioned 'poor oral status' as the reason sufficient oral care could not be performed. When the state of the patient's oral cavity was severe, it was speculated that psychiatrist nurses cooperated with dentists, which resulted in them being aware that the oral care was insufficient. This appears to be based on the results of self-evaluation of self-oral care based on professional oral care by a dentist as a standard [9]. If the condition of the patient's mouth is severe, it is important to collaborate with a dentist beyond the range of oral care provided by nurses [9]. In the future, it will be necessary for psychiatric nurses to be able to assess oral status, whether the oral care provided by the nurses is sufficient, and whether the technical oral care provided by a dentist is needed. Psychiatric nurses who cited 'insufficient knowledge' had higher scores for the third factor of collaboration with dentists (collaboration-related issues). When psychiatric nurses performed a self-evaluation concerning insufficient knowledge and insufficient oral care, it was revealed that there was a tendency to hope for collaboration with dentists. Psychiatric nurses thought that collaboration with dentists who are responsible for 'professional oral care' in team medicine leads to improvement in insufficient knowledge concerning oral care [9].

With regard to the 'insufficient techniques' concerning why sufficient oral care could not be performed, because there were differences in removal of contaminating substances using oral care techniques, it appeared necessary for psychiatric nurses to have the knowledge of various oral care techniques [17].

Approximately half of the psychiatric nurses cited 'patient refusal' as the most common reason for insufficient oral care. Factors for refusal of oral care were that the patient feels embarrassment about having his or her mouth seen and anxiety concerning not knowing what treatment will be performed, past unpleasant experience of oral care, and organic difficulty in opening the mouth [18]. Furthermore, in the psychiatric ward, there are cases in which this may be influenced by psychiatric symptoms [19]. It was suggested that it was necessary to acquire oral care method [18] that psychiatry nurse can do efficiently when patient's rejection prevents oral care sufficiently. 'Lack of goods', 'shortage of personnel', and 'problems related to expenses' are related to the organizational management/management aspects such as maintenance of goods necessary for oral care, securing of personnel, and securing of expenses; thus, a systematic approach is needed [9,20].

5. Conclusion

As a conclusion of this study, it became clear that most of the psychiatric nurses who studied the subject felt the importance of oral care. Approximately 80% of psychiatric nurses self-evaluated the oral care being performed as insufficient. Approximately half self-evaluated the oral care as not conducted in collaboration with dentists. The most common reason for being unable to perform sufficient oral care was 'refusal by patient', next, 'no time', 'undeveloped techniques', 'insufficient goods', 'insufficient human resources', 'insufficient knowledge', 'poor oral status', 'no system of cooperation with other professions', and 'problems concerning expenses'. No psychiatric nurses gave the reason of 'refusal by family members'. Psychiatric nurse who worked in collaboration with dentists cited 'poor oral condition' and 'insufficient knowledge' as reasons for insufficient oral care, suggesting that collaborating with dentists may lead to an awareness of insufficient oral care. Along with the enhancement of collaboration with dentists, our results suggest that psychiatric nurses need to take steps to improve the quality of oral care.

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