IJD ISSN:1806-146X

Adult patients' profile regarding their oral health conditions and behavior

Perfil de pacientes hospitalizados quanto as atitudes e condições de saúde bucal

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ABSTRACT

To evaluate the oral conditions of hospitalized patients, using a quantitative approach of an exploratory nature. The sample consisted of 115 patients of both genders. Data collection was done through a questionnaire containing personal characteristics, reason for and period of hospitalization, and questions about oral and general health. During the interviews, the following activities were performed: bedside visits, interviews with patients, clinical exam with a wooden spatula and a clinical mirror, individual guidance on oral hygiene, supervised oral hygiene and motivational reinforcement to perform adequate oral hygiene. 80% reported that they brushed their teeth twice a day or more often, there was a bias of information, since a significant number of patients wore dentures. The findings also confirmed that 26.96% of the subjects had not been to the dentist for over ten years and revealed that the consultation was related to prosthetic dental care needs (47.48%) and tooth extractions (23.47%). The hospitalized patients required dental intervention of a curative and preventive nature with aim of restoring the health. In addition, it was necessary to adopt measures with the aim of preparing and training the nursing staff to take care of performing oral hygiene.

Key words: Dentistry; Nursing; Oral health; Hospitalization; Humanization.

RESUMO

Avaliar, em caráter exploratório e com abordagem quantitativa, as condições orais de pacientes hospitalizados. A amostra foi composta por 115 pacientes, de ambos os sexos. A coleta de dados foi feita através de questionário abordando características pessoais, dados sobre o motivo e o período de internação, e questionamentos relativos à saúde geral e bucal. Durante as entrevistas, foram desenvolvidas atividades como: visita aos leitos, entrevistas com os pacientes, exame clínico com espátula de madeira e espelho clínico, orientação de higiene bucal individualizada, higiene bucal supervisionada e reforço motivacional para a realização de uma higiene bucal adequada. 80% reportaram escovar os dentes duas ou mais vezes ao dia, havia um número significativo de pacientes portadores de prótese, caracterizando um viés de informação. Os achados confirmam, também, que 26,96% da amostra não vão ao dentista há mais de dez anos e revelaram que a busca do atendimento odontológico estava relacionada às necessidades protéticas (47,48%) e exodontias (23,47%). Os pacientes internados necessitam de intervenções odontológicas de caráter curativo e preventivo com contribuições ao restabelecimento da saúde do mesmo. Sugere-se a adoção de medidas que vise o preparo e capacitação da equipe de enfermagem para realização de cuidados quanto à higiene oral.

Palavras-chave: Odontologia; Enfermagem; Saúde bucal; Hospitalização; Humanização.

INTRODUCTION

According to the I National Conference of Oral Health, in 1986, and to the Article 196 of the Constitution of the Republic of 1988, oral health is characterized as being an integral and inseparable part of the individual's general health, and attention must be given to providing a multidisciplinary focus, since it is every citizen's right to receive, and the State's duty to provide dental services in the hospital environment[1].

Nevertheless, the importance of oral

hygiene for the hospitalized patient's well-being, prevention of systemic diseases, and improved recovery, is not something that has been widely disseminated[2]. It is known that the hospitalized individual is more concerned with the disease, which is the reason why he/ she has been hospitalized, than with oral health. Thus, it is observed that the reality in the hospital environment allows one to identify the need for special care, due to the fragility of these patients. Therefore, adequate attention to patient's clinical condition indicates the need for an integral view, essential for obtaining improvements in the systemic condition[1,3].

Studies have shown that patients' general health can be influenced by oral health, and that inadequate conditions of the oral cavity also reflect on the systemic health, interfering in the quality of life[4-9], particularly in the cases of hospitalized patients or those in the terminal stage. In turn, these patients find it difficult to maintain their oral self-care due to their physical limitations and the impact of hospitalization, with direct repercussion on the elderly population[10, 11].

Adequate oral hygiene conditions are fundamental for maintaining the normal physiological functions of individuals[11]. Due to the correlation between oral conditions and general health, the increasing role of oral care in the integral management of hospitalized patients is observed[10]. Nevertheless, when one refers to Hospital Dentistry, one immediately associates it with curative-rehabilitative treatment performed by the dentist, without an approach being made to prevention and health education[1].

Due to this fact, in Brazil, in February 2008, a project of law (#2776/2008) was presented at the House of Deputies, which establishes the mandatory presence of a dentist as a member of the multi-professional teams of hospitals. The purpose of including a dentist in the hospital environment is to assess the individual needs of each patient, to prevent and control oral pathologies that have systemic repercussions, and act as health promotors[12]. Once the dentist is present in this environment, he/ she would be responsible not only for oral health care, but also for forming links with the patients and their family members, achieving better adhesion to oral self-care[13].

Taking this information into consideration, the aim of this study was to assess the perceptions and oral conditions of hospitalized patients.

METHOD

Patients of both genders, hospitalized at Hospital Nossa Senhora da Conceição (HNSC) in Tubarão – SC, were assessed between the months of November 2008 and May 2009. HNSC is a teaching Hospital of the University of South of Santa Catarina (UNISUL) and is a reference, in the Southern region of the State of Santa Catarina, on pathologies of low, medium and high complexity.

The sample was composed of all hospitalized patients, during the period of time mentioned above, in sectors 7 and 9, responsible for patients from the Intensive Care Unit. Therefore, the exclusion criterion in the sample was characterized by patients: who were not from the ICU and/ or hospitalized in different sectors from the ones preselected.

After explaining the purpose, method, guaranteeing the confidentiality of the data, and the possibility of being able to desist at any stage of the research, the participants signed the Free and Informed Term of Consent.

The data were collected by two previously calibrated interviewers, using the structured interview technique, approaching personal characteristics, data about the reason and period of hospitalization, and questions concerning general and oral health. The questionnaire structure was based on research in the literature and adapted to the objectives of this study, after the application of a pre-test. The data collected were tabulated according to sets of descriptive categories, which allowed classification into a distribution of frequencies.

During the interviews, the following activities were performed: bedside visits, interviews with patients, clinical exam with a wooden spatula and a clinical mirror, individual guidance on oral hygiene, supervised oral hygiene and motivational reinforcement to perform adequate oral hygiene.

Intraoral clinical exam was performed to investigate patients' oral health conditions in order to provide them with guidance about their dental treatment needs. The presence or absence of lesions in soft tissues was also evaluated.

This descriptive cross-sectional study was approved by the Research Ethics Committee of UNISUL, Protocol nº 08.046.4.02.III.

RESULTS

The profile of the studied population can be observed in Table 1.

Table 1 - Distribution of hospitalized patients, according to their personal characteristics (n=115). HNSC, 2009.

Characteristic	n	%
Age (years)		
10 ├ 19	2	1.74
20 ├ 29	4	3.48
30 ├ 39	10	8.69
40 ├ 49	12	10.44
50 ├ 59	25	21.74
60 ├ 69	24	20.87
over 70	38	33.04
Gender		
Women	83	72.17
Men	32	27.83
Occupation		
Work	25	21.74
Laid off work	18	15.65
Retired	67	58.26
Do not work	18	15.65
Educational level (years)		
< 8	82	71.3
> 8	15	13.05
illiterate	16	13.91
did not answer	2	1.74

The mean age of hospitalized patients was 60 years, with patients more frequently being women (72.17%), whose occupation was characterized as retired (58.26%). Considering the educational level, it was observed that 71.3% studied fewer than 8 years, followed by 13.91% of illiterate persons, as described in Table 1.

Mean time of hospitalization was 6 days (75.65%), and the most frequent reason was cardiologic problems (30.44%). All patients were under medication, most frequently administered orally or intravenously (Table 2 and 3).

When patients were questioned about the practice and knowledge of oral health (Table 4 and 5), in spite of 80% reporting that they brushed their teeth twice a day, or more often, it was observed that 26.96% of the sample had not been to the dentist for over 10 years. However, when they did seek dental attendance, patients pointed out that they needed dentures (47.48%) or extractions (23.47%).

Table 2 – Distribution of reason for hospitalization (n=115). HNSC, 2009.

Reason for hospitalization	n	%
Cardiologic	35	30.44
Respiratory	29	25.22
Orthopedic	9	7.83
Vascular	7	6.09
Gastrointestinal	12	10.44
Neurologic	4	3.47
Dermatologic	2	1.73
Nephrologic	7	6.09
Oncologic	2	1.73
General Clinic	8	6.96

Table 3 – Distribution of specific characteristics as regards data about hospitalization period of the evaluated patients (n=115). HNSC, 2009.

Characteristic	n	%
Time of hospitalization (days)		
1 ├ 6	87	75.65
7 ├ 13	14	12.17
14 ├ 20	8	6.96
21 ├ 28	1	0.87
over 30	5	4.35
Using medications?		
yes	115	100
no	0	0
Mode of Administration*		
oral	112	53.34
Intravenous	85	40.48
intramuscular	9	4.28
subcutaneous	4	1.90

**the same patient was making use of more than one mode of administration (n=210)*

The presence of alterations in the oral mucosa, such as ulcerations, were reported by 19.13% of patients, whereas gingival bleeding was reported by 13.04%, and when bleeding was present it was more frequent during brushing (11.30%) (Table. 4).

When hospitalized, 99.13% of patients informed that they had not received oral hygiene guidance from the nursing team. The information that the patients gave about oral hygiene was obtained by dentists in 13.92% of the sample (Table. 5).

DISCUSSION

In this study, the mean age of hospitalized patients was 60 years, characterizing an elderly population. These findings confirmed reports that infirmities in this population demonstrated organic fragility and systemic complications resulting from age. When this clinical condition is not reestablished within a short period of time, recurrence of hospitalizations is observed[14,15].

Table 4 – Distribution of information related to oral health (n=115). HNSC, 2009.

Characteristic	n	%
When was the last time you went to the dentist? (years)		
less than 1	31	29.96
1 to 5	36	31.30
6 to 10	16	13.91
over 10	31	26.96
never been to a dentist	1	0.87
Why did you consult a dentist?		
extraction	33	23.47
dentistry	14	10.07
pain	7	5.03
dentures	66	47.48
endodontics	6	4.34
periodontics	2	1.44
follow up	10	7.19
not applicable	1	0.72
Do you have ulcerations in the oral cavity?		
yes	22	19.13
no	93	80.87
Do you have gingival bleeding?		
yes	15	13.04
no	100	86.96
When does it bleed?		
while eating	2	1.74
while brushing	13	11.30
not applicable	100	86.96

The main reason for hospitalization in this study was respiratory and cardiac diseases. According to the literature, respiratory diseases are one of the main causes of hospitalization, with pneumonia being the most frequent cause. In Brazil, it represents the fourth cause of hospitalization of elderly people, due to the deficit in the defense of the respiratory mucosa, making them more susceptible to this systemic condition[14,15].

When the study population was questioned about their capacity to work, the majority affirmed that they were retired. Using this information, a correlation between age and presence of teeth was made and it was observed that the majority of the individuals assessed had complete dentures, confirming the findings of Rosa et al.[16] (1992) and Frare et al.[17] (1997). Although the worldwide trend is to prolong maintenance of natural teeth with the passage of time, high prevalence of edentulism is still found in Brazil[18].

Table 5 – Distribution of specific characteristics with regard to oral health in the hospitalization period (n=115). HNSC, 2009.

Characteristic	n	%
Are you in the habit of brushing your teeth?		
yes	103	89.56
no	12	10.44
How many times a day?		
1	21	18.26
2	29	25.22
3	51	44.35
4 or more	12	10.43
I do not clean my teeth	2	1.74
Who gave you information about what to use in oral hygiene (OH)?		
dentist	16	13.92
others	19	16.52
not applicable	80	69.56
Does the nursing team give guidance on OH?		
yes	1	0.87
no	114	99.13

It is worth emphasizing that in dependent elderly patients, denture-wearing associated with deficient bacterial biofilm control due to the individual's functional incapability, serves as a reservoir of microorganisms, capable of being swallowed and aspirated, which is a means of aggravating systemic health[14]. Thus, relatives, care takers and the health team itself must be informed of the necessity of dental attention by means of daily control of oral hygiene since the oral condition can have a direct influence on the course of the patient's general health condition. Inadequate oral cavity hygiene may also cause local imbalance, such as extensive caries lesions, periodontitis, mucosal lesions, and opportunist infections[19,20].

In addition to edentulism, the presence of coronal and root caries, periodontopathies, tooth wear (friction, abrasion and erosion), soft tissue lesions (ulcerations, traumatic inflammatory hyperplasia, etc) and xerostomia were observed, confirming the findings of

previous studies[21]. Thus, one of causes of the high number of edentulous patients was the lack of seeking dental services, considering that 26.96% of the patients affirmed that their last dental consultation had taken place over ten years ago, and when the reason for the dental consultation was revealed, even in those who had consulted a dentist in a period shorter than ten years, the demand was related to the need for dentures (47.48%) and tooth extraction (23.47%).

Edentulous patients, who wore badly fitting dentures, could present ulcerative lesions in the oral mucosa, and these in turn, predispose patients to transitory bacteremia that may develop into endocarditis, particularly in patients with heart valve problems[18,22,23]. It is believed that one of the aggravating factors of mechanical plaque removal is due to the motor and cognitive limitations of the patient[18].

It is known that the level of education interferes in the access to information about the health-disease binomial[24]. Therefore, this interference can be found in the majority of the population evaluated, who presented fewer than eight years of schooling, suggesting lack of information as regards oral health, lack of access and the failure to seek dental services.

Considering those who answered they had never been to the dentist, those who had been longer than 10 years ago or between 6 – 10 years ago, they sum up 41.74%, suggesting negligence of oral health resulting from lack of information, difficulty of access, embarrassment or other reasons (Table. 4).

Daily and adequate oral hygiene is the most indicated manner to obtain satisfactory oral conditions with a view to health. To reach this goal, brushing and the use of dental floss are instruments capable of guaranteeing control of bacterial biofilm. A cleaning routine guarantees a better quality of life because it helps to prevent dental problems, and in hospitalized patients due to the complication of their systemic condition, effective health maintenance is necessary during the hospitalization period, with emphasis on the importance of multidisciplinary assistance[24].

With respect to an oral self-care routine, the patients reported that they brush their teeth an average of three times a day. However, when considering that the majority of patients evaluated wore complete dentures, a bias of the data was observed, since the probability of the etiological factors of caries disease becoming established would be insignificant, in view of the frequency of tooth brushing reported; however, the patients probably did not take ideal care, considering quality and efficacy of oral hygiene such as eating habits and some cultural aspects about the importance of the teeth in quality of life. Due to these aspects, it was observed that they needed radical dental treatment (tooth extraction).

In a survey carried out by Frare et al.[17] (1997) concerning the oral conditions of individuals over the age of 55 years, it was observed that among the patients with teeth, 34% presented gingival alteration of a morphological nature or related to color, and the majority cleaned their teeth only once a day, which emphasizes the compromise and involvement of the periodontal structures. In this study, 15 patients (10.04%) were shown to present gingival bleeding, which was normally present in 13 patients when they brushed their teeth (11.30%).

Another manifestation corresponded to involvement the oral mucosa with ulcerations resulting from traumatic lesions, use of certain medications and repercussion of systemic infirmities, and 22 patients (19.13%) reported this manifestation. Normally this compromise of the oral mucosa occurs as a result of using poorly fitting dentures and in cases of untreated candidiasis[17].

These findings reinforce that health programs must consider the aspects related to knowledge and oral health practices, in order to make the process of training the population feasible and to promote collective responsibility for health promotion at all the levels of society. Furthermore, it was verified that the goals are not achieved in the population, although dental caries and periodontal diseases are preventable[3].

With regard to the time of hospitalization, an average of 6 days was observed, confirming the data reported. This piece of information is important inasmuch as the longer the period of hospitalization, the greater the risk of the patient developing secondary complications, such as nosocomial pneumonia[24,25].

Another factor aggravating the oral condition is related to the use of drugs. All the patients interviewed reported making use of some type of medication, with the

most frequent being the use of anti-hypertensive drugs (16.8%), followed by antibiotics (8.7%). Some medications may interfere in salivary flow and pH with a direct influence on the oral mucosa (xerostomia, alterations in the sense of taste, stomatites and gingival hyperplasia associated with the use of anticonvulsive drugs), constituting risk factors for periodontal disease and dental caries[26,27].

On the other hand, it is believed that nurses have a fundamental role in taking care of hospitalized patients, being responsible for daily hygiene, providing well-being and comfort to hospitalized individuals since their capacity of performing routine functions is altered[22]. The data of this study show that according to the patients' reports, the nursing team does not perform and/or give guidance about care of the oral cavity and only one patient revealed that this type of attention had been provided.

Based on this reality, in a study conducted by Kahn et al.[8] (2007) the majority of the interviewed doctors, who worked in the cardiology and intensive care area, reported the importance of the hospital team to provide patients with oral hygiene guidance in order to improve cygontrol of oral infections. Therefore, the inclusion of a dentist in the multidisciplinary team is believed to be very important, to perform curative, preventive and educational activities for integration into the context of oral health promotion, consequently, for improving the patient's general clinical condition[1].

FINAL CONSIDERATIONS

The reality observed in the Hospital Nossa Senhora da Conceição – Tubarão/SC reveals the need for dental attention to hospitalized patients, by providing preventive and educational guidelines.

The high number of edentulous patients requiring dental interventions, demonstrated patients' lack of taking care of oral health, as well as their failure to seek a dentist and the lack of general information about the impact of oral health on general health. However, it is essential to adopt measures with the aim of changing this reality and improving the patient's health.

In addition, according to the findings in the literature, it must be considered that the reason for hospitalization as well as the period of hospitalization are relevant factors in the individual's systemic condition and in re-establishing his/her biological conditions. It is also necessary to take care of the oral cavity to obtain organic balance, as in the cases of respiratory or heart problems.

During the hospitalization process, oral health is neglected, therefore, further studies are suggested, which should discuss the inclusion of oral hygiene practices in the hospital environment, and to prepare and train the nursing with regard to providing this type of care.

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Recebido em 20/04/2010
Aprovado em 04/10/2010