DOI: 10.53660/CLM-1759-23L11

Condition of Oral Health of Caregivers of Elderly Patients in Palliative Care

Condição de Saúde Bucal dos Cuidadores de Idosos em Cuidados Paliativos

Received: 2023-06-30 | Accepted: 2023-07-01 | Published: 2023-07-04

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ABSTRACT

The aim of this study was to evaluate the oral health status of caregivers of older adults in palliative care. This cross-sectional observational study comprised 54 caregivers of older adults hospitalized at a public university hospital in Recife, Brazil. The caregivers answered a questionnaire and underwent oral clinical examination. They were a mean of 45.1 years old; 87% were females and the patients' relatives, 68.2% had supragingival calculus, 51.9% wore dentures, and 96.3% had a very high DMFT index. As for the older adults, 76% had unsatisfactory oral hygiene. Hence, both preventive and rehabilitative actions must be planned for caregivers to improve their oral health and quality of life, thus also improving these in the older adults for whom they care.

Keywords: Caregivers; Oral health; Palliative care; Elderly.

RESUMO

Este trabalho avaliou a condição de saúde bucal de cuidadores de idosos em cuidados paliativos. Realizou-se um estudo observacional transversal com 54 cuidadores de idosos internados em um hospital público universitário de Recife- Pe. Aplicou-se um questionário e realizou-se um exame clínico bucal. Os cuidadores tinham idade média de 45,1 anos, 87% eram do sexo feminino e familiar do idoso, 68,2% apresentavam cálculo supragengival, 51,9% eram usuários de prótese dentárias e o índice CPO-D em 96,3% foram categorizados como muito alto. Na avaliação dos idosos, 76% apresentavam higiene oral insatisfatória. Ressalta-se assim, a importância de que haja planejamento de ações tanto preventivas quanto reabilitadoras para a população de cuidadores, com a finalidade de melhorar a saúde bucal, a sua qualidade de vida e, consequentemente, também a do idoso sob seus cuidados.

Palavras-chave: Cuidadores; Saúde bucal; Cuidados Paliativos; Idoso.

INTRODUCTION

With the increase in life expectancy and decrease in the mortality rate, population aging is a worldwide phenomenon, and in Brazil, it occurs at an accelerated rate. According to the Brazilian Institute of Geography and Statistics, between 2000 and 2025 it is estimated that the proportion of the population aged 60 years and over will increase from 8% to 15% and, subsequently, to 24% in the year 2050, resulting in changes in health services, in society and in the family (OLIVEIRA, 2013; SAAD, 2016; PLACIDELI et al., 2020; SANTANA, 2020).

Along with the increase in longevity, there is a greater involvement of chronic diseases which, in the elderly, tend to be multiple, revealing a warning sign and the need for preparation on the part of professionals, who begin to deal with a variety of risk factors and disabilities, increasing demand for services. This susceptibility to chronic diseases in these individuals occurs due to physiological changes, resulting from the aging process itself, accompanied by the decline of organic functions and, consequently, of their quality of life, which can, in this way, lead them to terminality (OLIVEIRA, 2013; FRATEZI et al., 2011; PLACIDELI et al., 2020).

In this context of end of life and an unfavorable prognosis, palliative care is inserted, which are interventions aimed at patients with terminal disease, based on a model of

comprehensive, holistic and interdisciplinary care so that patients can live as actively as possible. The focus shifts from curing the disease to quality of life. Care is performed by an interdisciplinary team, with a single objective - the well-being of the patient. They provide relief from pain and other symptoms that generate suffering, affirm life and accept death as a natural process. They do not delay or anticipate death, also providing psychosocial and spiritual support to patients and their families (ANDRADE, 2012; MENEGUIN et al., 2016; BORGHIL et al., 2013; SANTANA, 2020).

The age group of the elderly is the one that is most frequently subject to these interventions, especially those undergoing long-term therapies for chronic diseases, such as dementia, neoplasm, heart disease, lung disease and nephropathy. Initially, palliative care was developed around cancer patients and, over the last decades, patients with chronic, evolutionary, progressive and degenerative diseases that do not respond to curative treatment have also been covered (MENEGUIN et al., 2016; FONSECA, 2012; ALI, 2011; SANTANA, 2020; LEANDRO et al., 2020).

For an individual who receives palliative care, the active participation of the family in the process becomes essential. In this scenario, the main caregiver is inserted, who most of the times is a close family member, who assumes responsibility for the care of the patient in a situation of dependence, without financial compensation and, often, abdicating his own life (MENEGUIN et al., 2016; GAIOLI et al., 2012; BORGHI et al., 2013; SANTANA, 2020; LEANDRO et al., 2020).

The provision of continuous care to the sick person, especially when performed by a single responsible caregiver, can be experienced by the latter as an overload, given that most of them perform other tasks besides care. Such a routine becomes even more arduous when there is no possibility of curing the patient, which requires changes in the family routine and professional life of the caregivers, who often abdicate their own needs and desires (KLINKENBERG et al., 2004; BANDEIRA, et al., 2008; REZENDE et al., 2009).

There are several challenges faced by caregivers on a daily basis, such as the difficulty in dealing with agitation and aggressiveness of the person being cared for, with constant walking (especially at night) caused by changes in sleep and rest habits, besides, we can still mention forgetfulness, repetitiveness, stubbornness and constant requests. In addition to playing new roles and tasks associated with the patient's problem. Often, when assuming the role of caring, it is necessary to perform some activities of daily living, such as bathing, hygiene care, use of the bathroom, locomotion, food, medication, seen as the main tasks (ARAÚJO et al., 2009; REZENDE et al., 2005; MAFF et al., 2019)

Among the assistance provided by caregivers are also the execution of oral health care, as well as encouragement about the importance of daily hygiene and periodic examinations. However, work overload and lack of time make the caregivers' self-perception and oral health

care deficient, as well as those with the elderly (REZENDE et al., 2005; YASUNORI et al., 2008; MAFF et al., 2019).

In this way, the caregiver's perception and attitudes towards their own oral health influence the care they offer to the elderly, and if the first fails to maintain their oral hygiene, the tendency is for them to transfer this same deficiency to the elderly person under their responsibility. In many cases, from this scenario, the quality of care provided to the elderly can be determined (FRENKEL, 1999; SALIBA et al., 2007; GOMES et al., 2019)

Based on the above, the objective of the present study is to diagnose the oral condition of caregivers of elderly people in palliative care, in order to plan and execute preventive and educational actions for these individuals and consequently impact the oral health of both the caregiver and the elderly.

METHODOLOGY

Ethical Considerations

In this research, the ethical precepts of voluntary and consented participation were respected, according to Resolution Nº 466/12 the National Health Council, Ministry of Health, Brazil, through the completion of the Free and Informed Consent Form, obtained from all participating caregivers before the beginning of the interview. The project was approved by the Research Ethics Committee of the Instituto de Medicina Integral Professor Fernando Figueira (IMIP) on 09/22/2017 under protocol number 2.348.909, CAAE: 69241217.4.0000.5201.

Type and study location

This is an observational, cross-sectional and descriptive study, carried out in the palliative care ward of the Instituto de Medicina Integral Professor Fernando Figueira (IMIP) em Recife - Pernambuco/Brazil, with caregivers of the elderly who are hospitalized.

Sample Size and Eligibility Criteria

Inclusion criteria were people of both sexes, over 18 years old, who were exercising the activity of caregiver of elderly people in palliative care. Occasional companions were excluded. The convenience sample consisted of 54 caregivers, family members and professionals, according to the criteria mentioned above, from September to December 2017.

Research variables

Socialdemographic data:

Age considered in complete years, from the date of birth and date of data collection; gender: male or female; marital status: single, married, divorced or widowed; degree of schooling:

no schooling, incomplete elementary school, complete elementary school, incomplete high school, high school complete, complete higher education or incomplete higher education.

Data evaluated in the interview:

Time of caring, in months; care time for weeks; caregiver's kinship; oral hygiene of the elderly; when was the last time you went to the dentist; what difficulty to go back to the dentist; how many times you brush your teeth a day; how to do cleaning your own teeth and how you clean your dentures.

Data evaluated in the clinical examination:

DMF-T Index - formulated by Klein and Palmer, in 1937, it is used by the World Health Organization (WHO) to assess the prevalence of dental caries in several countries. The acronym DMF-T comes from the words “Decayed”, “Missing”, “Filled” and the T indicates that the unit of measurement is the tooth. The age of 12 years is an international reference for calculating the index because is the age in which the permanent dentition is practically complete, the WHO recommends an ideal mean DMF-T value lower than 1.1 at 12 years old, which corresponds to a prevalence of very low caries.

Condition of teeth and mucosa (whether or not there is gingivitis, dental calculus, tongue coating, oral candidiasis or plaque visible biofilm); use of prostheses and which type (total prosthesis, removable partial denture, fixed prosthesis or others); condition of the prostheses (whether or not there are missing teeth, debris, wear teeth, presence of dental calculus, stains or fracture); does not use a prosthesis, but needs it; and how is the oral evaluation of the elderly (satisfactory, regular or unsatisfactory oral hygiene).

Research data collection

The data collection instruments were a questionnaire specially designed for the study, containing multi choice questions and an observational oral clinic exam (without the use of instruments), both performed in a reserved room by two properly calibrated researchers, one examiner and the other the annotator.

The collected data were transcribed by typing, using the Excel program and the statistical calculations were performed in the SPSS 13.0 program (Statistical Package for the Social Sciences), descriptively analyzed through absolute frequencies and percentages for the categorical variables and the statistical measures: mean, standard deviation and median for the age variable and by inference through Pearson's chi-square test or Fisher's exact test when the condition for using the chi-square test was not verified ($p < 0.05$).

RESULTS

The study population had a mean age of 45.1 years, with a minimum age of 18 and a maximum of 79 years. The female gender predominated (87%), with the majority being family members of the elderly (87%). 57.4% of caregivers did not have a partner and in relation to schooling, 31.4% did not complete elementary school, 27.8% completed high school and only 9.3% had completed higher education (Table 1).

Table 1 – Demographic data.

Variables	N	%
Gender		
Masculine	7	13.0
Feminine	47	87.0
Marital status		
Single	27	50.0
Married	23	42.6
Widowed	4	7.4
Level of schooling		
Incomplete first degree	17	31.4
Complete first degree	10	18.5
Incomplete second degree	4	7.4
Complete second degree	15	27.8
Incomplete higher education	3	5.6
Complete higher education	5	9.3
	Mean ± SD	**Minimum – Maximum**
Age	45.1 ± 13.3	18.0 – 79.0

As for the time they provided care to the elderly, 42.6% had been caring for less than six months, 5.6% for at least one year, 11.1% for two years, 3.7% for three years and 25.9 % cared for more than three years. Considering the hours they dedicated to care, most (57.4%) worked part-time, sharing with other family members, and 42.6% were full-time. 18% of respondents received some gratification and 70.4% said they performed oral hygiene for the elderly.

Regarding the last visit to the dentist, 42.6% reported that they had a consultation less than a year ago, 31.5% between one and three years and 25.9%
for more than three years. 77.8% say they find it difficult to return, and lack of time (38.1%) is the main limiting factor for seeking dental treatment.

In view of hygiene habits, 25 caregivers brushed teeth/prostheses three times a day, 19 twice a day, 6 more than three times, and only 4 participants clean them once a day. The most used materials were toothbrush and toothpaste for both teeth and dentures.

Table 2 – Caregiver's oral assessment.

Variables	N	%
Mucosa and teeth conditions		
Visible dental plaque	25	56.8
Dental calculus	30	68.2
Gingivitis	14	31.8
Coated tongue	13	29.5
Oral candidiasis	5	11.4
Denture condition		
Absence of teeth	5	17.9
ood remains	14	50.0
Teeth wear	19	67.9
Stains	17	60.7
Fractures	10	35.7
Calculus	7	25.0
Denture usage		
Yes	28	51.9
No	26	48.1
If so, which type		
Removable Partial Denture	21	75.0
Complete denture	5	17.9
Fixed denture	2	7.1
No denture usage, but need one		
Yes	30	55.6
No	24	44.4

According to table 2, the most frequent dental and periodontal problems in the caregivers examined were: 68.2% dental calculus, 56.8% visible plaque and 31.8% gingivitis.

The conditions of the prostheses in use, by the caregivers, showed that teeth wear (67.9), stains (60.7%) and food remains (50%) were the most prevalent problems. The time of use of the prostheses was not evaluated. Most (51.9%) used prosthesis, with removable partial dentures and

total dentures being the most frequent with 75% and 17.9% respectively. It was recorded that 55.4% did not use any dentures, however they needed rehabilitation.

Table 3 – Elderly oral hygiene vs Caregiver oral hygiene.

	Elderly oral hygiene			
Variables	**Satisfactory n (%)**	**Regular n (%)**	**Unsatisfactory n (%)**	**p-value**
Perform the oral hygiene of the elderly				
Yes	6 (66.7)	16 (66.7)	16 (76.2)	0.756 *
No	3 (33.3)	8 (33.3)	5 (23.8)	
DMF-T* **				
Very low	0 (0.0)	1 (4.2)	0 (0.0)	1.000 **
High	0 (0.0)	1 (4.2)	0 (0.0)	
Very high	9 (100.0)	22 (91.6)	21 (100.0)	
Elderly relative				
Children	5 (55.6)	9 (37.5)	15 (71.4)	0.249 **
Spouse	2 (22.2)	5 (20.8)	1 (4.8)	
Grandchildren	0 (0.0)	5 (20.8)	1 (4.8)	
Others	1 (11.1)	1 (4.2)	2 (9.5)	
Not a relative	1 (11.1)	4 (16.7)	2 (9.5)	
Time of care each day				
Partial	7 (77.8)	15 (62.5)	9 (42.9)	0.165 *
Integral	2 (22.2)	9 (37.5)	12 (57.1)	

DMF-T: Decayed, Missing, Filled - Teeth; (*) Chi-square test (**) Fisher's exact test. (***) ($p<0.05$).

Table 3 shows the relationship between caregivers who perform the oral hygiene of the elderly and how their hygiene was when evaluated, revealing that of those who said to perform hygiene, 76% of the elderly had unsatisfactory hygiene. As for the DMF-T of caregivers, 96.3% were categorized as very high, however this index was not associated with the oral hygiene of the elderly in our study ($p=1.000$), then this indicated that the high DMF-T had no relationship with the patient's regular or poor satisfactory hygiene.

DISCUSSION

In the research, it was found that most caregivers were female and family members of the elderly. It was observed that most caregivers had supragingival calculus, although they reported having gone to the dentist less than a year ago. Regarding the use of prostheses, most used it removable partial dentures being the most prevalent. In the evaluation of the elderly, most had unsatisfactory oral hygiene, and the DMF-T index of caregivers was very high.

Confirming the literature, the majority of caregivers studied were women with a mean age of 45.1 years (GAIOLI et al., 2012; BORGHI et al., 2013; LEMOS et al., 2006; LOPES et al., 2013; LENARDT et al., 2011; OLIVEIRA et al., 2012; ZIESEMER et al., 2021). This situation seems to reflect the traditional role that society imposes on women, assigning them to the task of caring, a function inherent to the condition of mother, wife and daughter (BORGHI, et al., 2013; LEMOS et al., 2006; BRAZ et al., 2009; ZIESEMER et al., 2021). Similarly, the family is expected to take care of the elderly, which would explain the significant prevalence (87%) of family members among the caregivers found in this study (LEMOS et al., 2006). Analyzing the results, attention was drawn to the fact that one of the caregivers was seventy-nine years old and, therefore, is an elderly person taking care of another elderly person.

The vast majority of respondents did not have completed elementary school. This data is extremely important, since the low level of education can affect the quality of the service provided to the debilitated elderly, since the caregiver needs to follow prescriptions and administer medication on a daily basis (NAKATANI et al., 2003).

Regarding the time of care provided, 57.4% reported dedicating part-time to the elderly. It was considered part-time, 12 hours a day on six days a week, in which we are faced with a workload of 72 hours a week, which far exceeds what is permitted by law for workers (GAIOLI, et al., 2012; LEMOS et al., 2006; PINTO et al., 2009; MASCARENHAS et al., 2006; ZIESEMER et al., 2021). In this way, caregivers are exposed to constant risks of illness because they are always overloaded, thus compromising their self-care and care for the elderly.

When asked about the time since the last access to dental services, most respondents reported having been to the dentist less than a year ago, however 77.8% say they feel the need to return to treatment, with lack of time being the main difficulty. This is seen in the literature as a factor that affects self-perception and care for both general health and oral health (PINTO et al., 2009; MASCARENHAS et al., 2006). Emphasizing that if the caregiver fails to maintain their oral hygiene, the tendency is for them to transfer the same actions to the elderly under their care. In many cases, from this scenario, the quality of care provided to the elderly can be determined (FRENKEL, 1999; LEMOS et al., 2006; ZIESEMER et al., 2021).

It can be thought at first glance that caregivers of the elderly have good access to dentistry, as most respondents went to the dentist less than a year ago. However, if the percentages of those

whose last visit was between one and three years (31.5%) and more than three years ago (25.9%) are added together, it is possible to state that the majority do not seek dental treatment or have difficulties of access.

As for the habits of cleaning teeth and prostheses, a portion of the population studied reported doing it three times a day and using a toothbrush and toothpaste. However, the oral examination revealed that 68.2% had supragingival calculus, showing that the frequency of cleaning was not real or that the participant did not perform it properly. In some studies on the subject, it was seen that diseases of the oral cavity are preventable by the correct use of preventive measures, but little is known about the factors that condition individuals to assume or not a preventive behavior, which prevailed without preparation or qualified guidance to provide this basic care. It is clear that the maintenance of oral hygiene depends a lot on the socioeconomic conditions of each individual, changing behavior and failing to employ preventive measures correctly (GOMES et al., 2019; LEMES, 2022).

In the evaluation of the conditions of the dentures in use, it was observed that 67.9% had worn teeth, 60.7% had stains and 50% had food debris. The presence of food remains evidences the difficulty for caregivers to clean the dentures, even if cleaning them three times a day, since they, mostly made of resin, should not be cleaned using the same method used for natural teeth. Toothpaste is extremely abrasive to the resin, facilitating the deposition of food residues, consequently causing stains and also causing denture wear (PALUDO, 2014; SILVA et al., 2008; GONÇALVES et al., 2011). In addition, the soft toothbrush does not exert enough abrasion to remove the plaque that colonizes the metal structures and resin that make up removable dentures. Brushing associated with neutral soap is the most used mechanical method, as it is simple, low cost and effective. specific brushes They have a format that facilitates the reach and cleaning of the prostheses. After mechanical cleaning, it must be recommended chemical cleaning with products that do not cause damage to the material used in the prosthesis (VASCONCELOS et al., 2019). There is a need to inform this population about the most appropriate materials and methods for cleaning them.

Tooth loss was one of the main problems found in this population and it was observed that 55.4% did not use prostheses, but needed rehabilitation. Regarding the DMFT of caregivers, 96.3% were categorized as very high, thus indicating a poor oral health condition that is often associated with unfavorable socioeconomic status, difficulty in accessing health services, harmful habits and even may be linked to the overload that these caregivers face on a daily basis, leaving them with no time to take care of their own health. The lack of rehabilitation can impact on quality of life, as it makes it difficult and limits the consumption of more consistent foods, phonation, also causing aesthetic and even psychological damage, reducing their well-being (SANTOS, 2009; COLUSSI et al., 2002). Therefore, it is necessary to perform interventions, orienting them on oral hygiene or rehabilitating them.

Associating the oral hygiene of the elderly in relation to that of their caregivers, it can be noted that 76% of the evaluated elderly had unsatisfactory hygiene and almost all caregivers have poor oral health conditions, that is, if the caregiver does not have good oral habits or has a disability/difficulty in cleaning, it is expected that he will transfer the same conditions to the elderly person under his care.

Regarding the limitations of the study, it was observed that the literature is still scarce in studies that address the oral health condition of caregivers of elderly people in palliative care, hindering the theoretical basis of the research, requiring further studies on this topic. And regarding future prospects, it would be necessary to implement more dental services to serve this portion of the population.

CONCLUSION

When exercising the role of caring for the elderly in palliative care, the caregiver lives with an overload that affects their general and oral health. Playing this role for a long time with someone who increasingly depends on their care leaves them with no motivation to take care of themselves, as their time is practically all compromised. Evaluating the oral health of the caregivers studied, it is concluded that it cannot be considered good, and the importance of planning actions, both preventive and rehabilitative, with the purpose of improving oral health, their quality of life and consequently that of the elderly under their care.

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