

Evaluation of the Elderly on Oral Health in the Basic Attention

ORIGINAL

Carmem Silvia Laureano Dalle Piagge¹, Karoline de Lima Alves¹, Luípa Michele Silva², Adriana Maria Moreira Alexandre³, Mariana de Lacerda Siqueira Brasileiro¹, Cariles Silva de Oliveira¹, Jacqueline Duarte Rocha¹, Mônica Rocha Rodrigues Alves¹, Ana Giovana Medeiros de Oliveira¹, Maria do Socorro Costa Feitosa Alves⁴, Antonia Oliveira Silva¹

Abstract

Background: For aging healthy, the prevention and maintenance of oral health is essential in the general health of the individual.

Objective: Thus, we sought to evaluate the elderly's perception of themselves, associating this information with their reported quality of life.

Methods: This is an exploratory descriptive study with a quantitative approach. It was held in the Family Health Units in the city of João Pessoa-Paraíba-Brazil, in 2015. The Geriatric Oral Health Assessment Index questionnaire was used to assess the Socio Dental Indicator.

Findings: Were 258 elderly, mostly female, married, who perceive their oral health positively, although they report having suffered limitations, being them physical, psychological, pain or discomfort.

Conclusion: In the face of the evidence, measures are suggested to minimize the gaps, adopting more public policies aimed at the health of the elderly. These measures will ensure better conditions of service and development of projects with the aim of providing ageing with quality of life, to this age group. The results of this study may contribute to educational actions aimed at improving the care of the elderly.

- 1 Federal University of Paraíba. Member of the International Group for Research on Aging and Social Representations of the Federal University of Paraíba, Joao Pessoa, Paraíba, Brazil.
- 2 School of Nursing of Ribeirão Preto/ USP. Member of the International Group for Research on Aging and Social Representations of the Federal University of Paraíba, Joao Pessoa, Paraíba, Brazil.
- 3 Social Worker. Municipal Hospital of Jaguaruana, Ceará, Brazil. Member of the International Group for Research on Aging and Social Representations of the Federal University of Paraíba, Joao Pessoa, Paraíba, Brazil.
- 4 Teacher at the Federal University of Rio Grande do Norte, Natal, Rio Grande do Norte, Brazil. Member of the International Group for Research on Aging and Social Representations of the Federal University of Paraíba, Joao Pessoa, Paraíba, Brazil.

Contact information:

Karoline de Lima Alves.

Address: Federal University Paraíba, João Pessoa, PB, Brazil. CEP: 58059-900.

Tel: (83) 3216-7248.

 krol_lima_17@hotmail.com

Keywords

Dentistry; Aged; Primary Health Care.

Introduction

Population aging is due in large part to the considerable increase in the life expectancy of Brazilians, being associated with the drop in mortality rate, increasing the relative proportion of elderly people in the population [1].

Old age is usually marked by a decline in biological, social, intellectual and functional functions that, depending on the context in which they occur, can lead to important changes in the quality of life and independence of the elderly [2].

The aging process poses some challenges for health, such as: disease prevention, health maintenance, independence and autonomy of the elderly population. These require approval and development of political actions, i.e., it is not enough to live longer, it is necessary to have quality of life, dignity and well-being [3].

Growing aging has altered the morbidity and mortality profile of the population, increasing the rate of chronic non-communicable diseases, to the detriment of previously prevalent infectious diseases [4].

For aging healthy, the prevention and maintenance of oral health is essential in the general health of the individual. The longer the average life of the population, the more important the concept of quality of life becomes, and oral health has a relevant role in this context. Committed oral health can affect the nutritional level, physical and mental well-being and decrease the pleasure of an active social life [5].

The role of Dentistry in relation to this age group is to keep patients in oral health conditions that do not compromise daily nutrition, nor does it have negative repercussions on the general health and psychological state of the individual [6]. Some diseases common to the elderly patient present oral consequences for which the dental surgeon must be attentive in order to minimize interferences in the dental treatment [7].

The Epidemiological Survey of the Oral Health Conditions of the Brazilian Population, Brazil Oral Health Project (2010) conducted by the Ministry of Health evidenced a critical picture of elderly oral health, in which they present high percentages of edentulism [5]. The promotion of oral health in the elderly seeks to ensure well-being and improvement in quality of life and self-esteem, improving mastication, aesthetics and the possibility of communication.

Edentulism is the result of a number of complex determinants, such as the precarious living conditions, the low supply and coverage of services, the predominant assistance model of mutilation practice, and cultural characteristics that have a significant influence on the way tooth loss is assimilated [6].

Individuals with systemic diseases require follow-up and medical opinion to perform dental treatment. Most of the medicines have side effects in the oral cavity (e.g., metallic taste, lack of taste and xerostomia). The interaction of professionals is necessary to discuss the revision of prescriptions. In clinical examination, observe pre-existing injuries, as they may be signs of cancer, whose treatment success depends on the precocity of diagnosis [8].

Family or caregivers involvement, and the multidisciplinary interaction with the health team, are part of the process of elderly health care. In the oral health care of the elderly, it is fundamental the joint work of the health team, being important the work with the doctors, nurses, physiotherapists and psychologists [9].

In order to diagnose the main oral needs of the elderly, it is necessary to know not only their objective (clinical) needs but also those subjective (reported) [10]. For this, the elderly need to have the opportunity to express their feelings and their needs, which are often hidden and repressed in the daily routine of objective assessments of clinical practice.

Without the subjective evaluation, the health professional cannot diagnose health and its priority ne-

eds in a global way, making it impossible to provide to the elderly patients a better quality of life [11].

The quality of life of the elderly is related to self-esteem and personal well-being, covering a series of aspects such as functional capacity, emotional state, self-care and health status, lifestyle and personal satisfaction. A personal evaluation is directly influenced by social, economic and psychological reasons, which can only be understood when patients are heard and their opinions are taken into consideration [10].

Even in countries that maintain free dental programs targeted at the elderly, the main reason for not seeking the dental service is because they do not realize its need. Generally, older people attribute positive values to their health, even with unfavorable clinical conditions. On the other hand, the variables related to the impact of oral health on quality of life commonly appear associated with self-perception.

Thus, this study sought to evaluate the elderly's perception of themselves, associating this information with their reported quality of life.

Methods

This was an exploratory, descriptive study with a quantitative approach, aiming to evaluate the self-perception of the oral health of the Elderly in Primary Health Care. This research was held in the Family Health Units in the city of João Pessoa-Paraíba-Brazil, in 2015.

The research sample consisted of 258 elderly, Primary Health Care users, aged 60 years old or more, of both genders, with cognitive and mental capacity preserved and which were chosen at random.

The elderly voluntarily accepted to participate in the study, after formalized consent by each elderly, in compliance with the recommendations set forth in Resolution 466/2012, of the National Health Council of the Ministry of Health, on research involving human beings, after approval by the committee of

ethics in research at the Health Science Center of the UFPB, Protocol CEP / HULW n° 261/09 and CAEE 0182.0.126.000-09.

The Geriatric Oral Health Assessment questionnaire (GOHAI) was applied [12] for evaluation of the Socio Dental Indicator, where the twelve items that compose it with information about the influences of health problems in three dimensions, physical, psychological and pain or discomfort can be observed. The level of measurement of these items is categorized so that the answers "always", "sometimes" and "never" were assigned weights 1, 2 and 3, respectively. The results were presented in tables, and for the development of the database and analysis, the programs Excel and Statistical Package for the Social Sciences (SPSS for Windows, version 20.0, SPSS Inc, Chicago, IL, USA) were used, proceeded to the frequency distribution of the variables and bivariate analysis, through the Chi-square test, with a significance level of $p < 0.05$.

Results

A total of 258 elderly, men and women, 70.5% (182) of the female gender and 29.5% (76) of the male gender, participated in the study. With regard to age, 73.3% (189) of the elderly were aged 60 to 79 years old and 26.7% (69) were older than 80 years.

On marital status, 44.7% (115) were married, 33.2% (85) were widowed, 14% (36) were single, 6.2% (16) were divorced, and 1.9% (5) of elderly did not respond. They reported that 51.6% (132) were white, 38.6% (99) brown, 8.2% (21) black, whereas 1.2% (3) reported being yellow and only 0.4% (1) were indigenous.

In terms of years of studies, the majority interviewed had 40.3% (104) over 8 years of study, 29.8% (77) had 4 years of study and 29.8% (77) were between 5 and 7 years of study.

It is worth noting that 69.7% (177), most of the elderly, reported being heads of household, another

Table 1. Distribution of sociodemographic variables of the elderly. João Pessoa-Paraíba-Brazil, 2015.

Variables	FA	FR
Age group		
60 to 79 years old	189	73.3
<80 years	69	26.7
Total	258	100.0
Elderly gender		
Feminine	182	70.5
Masculine	76	29.5
Total	258	100.0
Self-referenced color		
White	132	51.6
Medium brown	99	38.6
Black	21	8.2
Yellow	3	1.2
Indigenous	1	0.4
Total	256	100.0
Years of study		
Up to 4 years	77	29.8
Between 5 and 7 years	77	29.8
Over 8 years	104	40.3
Total	258	100.0
Marital Status		
Married	115	44.7
Widower	85	33.2
Single	36	14.0
Divorced	16	6.2
Separated	5	1.9
Total	257	100.0
Who is the head of the family		
The elderly	177	69.7
Spouse	48	18.9
Son/Daughter	18	7.1
Another family member	10	3.9
Not a family member	1	0.4
Total	254	100.0
Health service that uses		
Unified Health System	203	78.1
Health Insurance	44	16.9
Particular	11	4.2
Total	258	100.0

Source: Research, 2015.

FA: Absolute Frequency FR: relative frequency

18.9% (48) the spouse, 7.1% (18) son/daughter, 3.9% (10) another family member and 0.4% (1) not being a family member, however four elderly people did not respond who is the head of their family.

Table 1 shows, in relation to the socio-demographic profile of the interviewed elderly, the health services that the subjects of the study use, in which 78.1% (203) use the Unified Health System (SUS), 16.9 % (44) use health insurance and 4.2% (11) prefer the private service.

In the conception of the elderly for oral health, the researched reality shows that in the evaluation of the self-perception of the elderly in relation to oral health, the GOHAI questionnaire was used as a measurement instrument [12] and the relative frequencies of the components can be seen in **Table 2**.

Analyzing **Table 2**, we can observe the twelve items that make up the GOHAI index [12] consisting of information about the influences of oral health problems in three dimensions: physical, psychologi-

Table 2. Distribution of the answers given by the elderly according to each component question of GOHAI index. João Pessoa-Paraíba-Brazil, 2015.

In the last three months, how often did you...	Always	Sometimes	Never
	%	%	%
Limit the type and amount of food you eat due to problems with your teeth or dentures?	6.2	45.7	48.1
Have problems biting or chewing food like solid meat or apple?	11.6	44.6	56.2
Was able to swallow comfortably?	63.8	29.2	7.0
Your teeth or dentures prevent you from speaking the way you wanted to?	5.8	25.6	68.6
Was able to eat something without feeling discomfort?	49.4	43.2	7.4
Limited your contacts with other people due to the conditions of your teeth or dentures?	2.9	16.5	80.6

In the last three months, how often did you...	Always	Sometimes	Never
	%	%	%
Feel pleased or happy with the appearance of your teeth or dentures?	55.0	30.6	14.5
Use drugs to relieve pain or discomfort related to the mouth?	2.1	36.3	61.7
Worried or had care of your teeth, gums or prosthesis?	62.9	31.3	5.8
Feel nervous or took consciousness of problems with your teeth, gums or prosthesis?	11.2	33.9	55.0
Feel discomfort when eating in front of other people due to problems with your teeth or dentures?	6.2	23.1	70.7
Have sensitivity in your teeth or gums when in contact with heat, cold or sweets?	8.3	39.8	51.9

Source: Research, 2015. %: percentage

cal, pain or discomfort. "The level of measurement of these items is categorized so that responses are generated as follows: "always", "sometimes" and "never" were assigned weights 1, 2 and 3, respectively.

Of the 258 elderly surveyed, 48.1% reported that they never limited the type or amount of food they eat because of problems with their teeth or dentures. In item 2, 56.2% of elderly reported that they never had problems biting or chewing food like meat or apple. Next, we observed that most of the elderly reported that they swallowed food comfortably, totaling a percentage of 63.8%. It was also found that 68.6% of the elderly never felt uncomfortable in the way of speaking due to their situation of teeth or prosthesis.

In component five, most of the elderly respond that they are always able to eat anything without discomfort and, in reference to the psychological dimension, in item six, most of them answered that they have never reduced their social support net-

work because of their condition of using dentures or teeth, by a percentage of 80.6%.

It was found that most of them (55%) feel happy with the aspects of their teeth or dentures and also, regarding the dimension of discomfort and pain, it was reported that 61.7% of the elderly never used or use drugs to relieve pain or discomfort due to mouth problem. Most of the elderly respond that they need to take care of their teeth, gums or dentures, making a total of 62.9%.

The elderly reported that they already felt some discomfort when feeding in front of other people due to problems with their teeth or dentures, totaling a percentage of 70.1%. Finally, in the last question, 51.9% of elderly reported that they had problem in their teeth or gums when in contact with heat, cold or sweets.

Table 3 shows the variables studied in this study according to the GOHAI scale score.

Although the statistical analysis showed that there was no statistical relevance with respect to the chi-square test, we can consider the reports of the elderly during the study, such as the existence of discomfort when feeding in front of other people

Table 3. Distribution of the variables according to the GOHAI score. João Pessoa-Paraíba-Brazil, 2015.

Variables	GOHAI Score			Total	p
	Low	Moderate	High		
Age					
60 to 79 years old	180	8	1	189	0.520
<80 years	64	5	0	69	
Total	244	13	1	258	
Gender					
Masculine	70	6	0	76	0.328
Feminine	174	7	1	182	
Total	244	13	1	258	
Presence of companion					
With partner	107	8	0	115	0.310
Without partner	136	5	1	142	
Total	243	13	1	257	

Variables	GOHAI Score			Total	p
	Low	Moderate	High		
Years of study					
Up to 4 years	72	5	0	77	0.536
Between 5 and 7 years	72	5	0	77	
Over 8 years	100	3	1	104	
Total	244	13	1	258	
Health service that uses					
Particular	11	0	0	11	0.536
Health Insurance	41	3	0	44	
SUS	192	10	1	203	
Total	244	13	1	258	

Source: Research, 2015. *p*: significance level of $p < 0.05$.

due to problems with their teeth or prostheses, and the fact that the elderly say they have had problems with their teeth or gums when in contact with heat, cold or sweets.

The results of this study may contribute with the educational activities, as well as in the performance of health professionals and the planning of oral health service, aiming at the improvement in care to the elderly person.

Discussion

Thus the importance of the functional capacity of elderly people to their quality of life, it becomes relevant to assess the ability for oral self-care by correlating with the socioeconomic, environmental and cultural conditions, which are described as structural determinants of health or as determinant social factors of inequalities in health, which may significantly influence the health of the elderly [13].

Socioeconomic data can contribute to the level of information of the elderly, determined the access to health services, the practice of preventive actions and self-care actions adopted in the daily life [14].

In this context, the prevention of oral diseases, most of the time, is related to the procedures of good oral hygiene. Consequently, motor limitations will interfere with daily oral care. Faced with this

fact, the maintenance of autonomy and independence, especially in aging, should be stimulated by health professionals [15].

Thus, the study points out a concern about the perception of the elderly, not having an appropriate judgment of their oral health, and this self-perception can proceed as an important subjective indicator in the evaluation and care of the elderly [16].

The study shows that the supervision of oral health in the elderly population is deficient, since the lack of knowledge about oral health and the propagation of ambiguous information leads to probable situations of lack of care in the elderly [17].

Many dental problems found in the elderly are, in fact, complications of pathological processes accumulated during the whole life of the individual, due to poor oral hygiene, iatrogeny, lack of orientation and interest in oral health and lack of access to dental care services [6].

With regard to oral health problems, edentulism results in functional problems, difficulties in chewing, swallowing and phonation, contributing to the appearance of systemic problems. Faced with this problem, dental prostheses can significantly improve the quality of life of the elderly [16].

According to the results of the GOHAI scale on food limitation and mastication, the results corroborate a study carried out with elderly individuals on the self-perception of oral health conditions of the elderly in a medium-sized municipality in the Northeast of Brazil, which characterized a positive perception of oral health conditions [18].

However, the elderly do not seek dental care because they do not know their oral health problems, specific to the aging process. In this context, there is a need for better promotion and prevention of oral health related to the elderly population. The study points out the need for better access to dental services or the difficulty of specialist services throughout the Brazilian national territory [19].

Conclusion

Through this study, it is concluded that the majority of the elderly positively perceive their oral health, however they report having suffered limitations, being physical, psychological, pain or discomfort, and that they are happy with the aspect of their teeth or prostheses.

The results show the need to multiprofessionally resize the work on the health of the elderly, especially oral health. In the face of the evidence, measures are suggested to minimize the gaps, adopting more public policies aimed at the health of the elderly.

Qualification in elderly care is of fundamental importance, both for dentists and other health professionals, either in the private clinic or in the teams of the basic health care network. These measures will ensure better conditions of service and development of projects with the aim of providing ageing with quality of life, to this age group.

It is highlighted as a limitation of the study the characterization of the studied sample, since the results found in this research refer to the elderly attending the Primary Care of the Family Health Program, and cannot be generalized for the entire elderly population of the Municipality of João Pessoa-Paraíba- Brazil.

Contribution of authors

CSLDP, KLA, LMS, AMMA, MLSB, CSO, JDR, MRRA and AGMO worked in all the phases of article elaboration, from the conception, design, analysis and interpretation of the data, writing of the manuscript; CSLDP, KLA and LMS have prepared the database; CSLDP, KLA and LMS held the critical review of the manuscript; MSCFA and AOS carried out the orientation of the manuscript and the approval of the final version to be published.

Interest Conflict

The authors declare no conflict of interest.

References

1. Carneiro, RS, et al. Qualidade de vida, apoio social e depressão em idosos: relação com habilidades sociais. *Psicol. Reflex.crist.* Porto Alegre. 2007; 20: 200.
2. Da Silva Giro, AJN, Paúl, C. Envelhecimento sensorial, declínio cognitivo e qualidade de vida no idoso com demência. In: *Actas de Gerontologia: Congresso Português de Avaliação e Intervenção em Gerontologia Social.* 2013.
3. Veras, RP. Experiências e tendências internacionais de modelos de cuidado para com o idoso. *Ciênc Saúde Coletiva.* 2012; 17: 231-238.
4. Zago, AS, et al. Trabalho multiprofissional: necessidades reais e as políticas públicas na atenção da população idosa. *Rev Ciência Atual.* 2015; 5: 02-12.
5. Ministério da Saúde. Projeto SB. Brasil, 2010: resultados principais. Brasília. Ministério da Saúde, 2010.
6. Rovida, TAS, et al. O conceito de saúde geral e bucal na visão dos cuidadores de idosos. *Odontologia Clínico-Científica.* 2013; 12: 43-46.
7. Catão, MHCV, Gonzaga, AKG, Peixoto, LR. Associação do processo de envelhecimento com o surgimento da doença periodontal. *Revista da Faculdade de Odontologia de Lins.* 2013; 23: 53-60.
8. Bertotti MEZ, Souza AR, Almeida DV, Macias Seda J, Popim RC. Autopercepção da saúde bucal de idosos em interface com doenças crônicas e uso de medicações. *Arq Med Hosp Fac Cienc Med Santa Casa São Paulo.* 2015;60:54-60.
9. Rocha, DA, Miranda, AF. Atendimento odontológico domiciliar aos idosos: uma necessidade na prática multidisciplinar em saúde: revisão da literatura. *Rev. Bras. Geriatr. Gerontol.* 2013; 16: 181-189.
10. Resende CM, Alves AC, Coelho LT, et al. Quality of life and general health in patients with temporomandibular disorders. *Braz Oral Res.* 2013; 27(2):116-21.
11. Jones, KM, Souza, JGS, Pordeus, IA. Associação entre impactos funcionais e psicossociais das desordens bucais e qualidade de vida entre idosos. *Ciência & Saúde Coletiva.* 2014; 19(8):3461-3478.
12. Atchison KA, Dolan TA. Development of the Geriatric Oral Health Assessment Index. *Journal of Dental Education* 1990; 54(11):680-687. In: Costa EHM, Saintrain MVL. Vieira APGF. Autopercepção da condição de saúde bucal em idosos institucionalizados e não institucionalizados. *Ciência & Saúde Coletiva.* 2010; 15(6): 2925-2930.

13. Geib, LTC. Determinantes sociais da saúde do idoso Social determinants of health in the elderly. *Ciência & Saúde Coletiva*. 2012; 17: 123-133.
14. Patrício, ACFA. Alves, KL. Santos, JS. Albuquerque, KF. Bezerra, VP. Moreira, MASP. Silva, AO. Rodrigues, TP. Serviço prestado pelo idoso na Estratégia Saúde da Família. *Arquivos Internacionais de Medicina*. 2016; 9.
15. Vargas, AMD. Saúde Bucal: atenção ao idoso. Belo Horizonte: Nescon/UFMG, 2012; 76.
16. Agostinho, ACMG, Campos, ML, Silveira, JLG. Edentulismo, uso de prótese e autopercepção de saúde bucal entre idosos. *Rev Odontol UNESP*. 2015; 44(2): 74-79.
17. Pereira, KCR, et al. Percepção, Conhecimento e Habilidades de Cuidadores em Saúde Bucal de Idosos Acamados. *Saúde & Transformação Social/Health & Social Change*. 2015; 5(3): 34-41.
18. Vasconcelos, LCA, et al. Autopercepção da saúde bucal de idosos de um município de médio porte do Nordeste brasileiro. *Cad. saúde pública*. 2012; 28(6): 1101-1110.
19. Moura, LKB, et al. Produção científica sobre saúde bucal de idosos no Brasil. *Revista Interdisciplinar*. 2015; 7(4): 179-188.

Publish in International Archives of Medicine

International Archives of Medicine is an open access journal publishing articles encompassing all aspects of medical science and clinical practice. IAM is considered a megajournal with independent sections on all areas of medicine. IAM is a really international journal with authors and board members from all around the world. The journal is widely indexed and classified Q2 in category Medicine.