

SELF-PERCEPTION OF ORAL HEALTH BY THE ELDERLY ASSISTED BY THE PUBLIC SYSTEM OF A MUNICIPALITY IN MINAS GERAIS

Autopercepção de saúde bucal por idosos atendidos pelo sistema público de um município de minas gerais

Autopercepción de salud bucal por ancianos atendidos por el sistema público de una ciudad de minas gerais

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How to quote this article:

Ferreira IR, Silva PLN, Oliveira E, *et al.* Self-perception of oral health by the elderly assisted by the public system of a municipality in minas gerais. Rev Fun Care Online.2020. Jan./Dec.; 12:1290-1295. DOI: <http://dx.doi.org/10.9789/2175-5361.rpcfo.v13.9755>

ABSTRACT

Objective: To analyze the self-perception of oral health by the elderly assisted by the public system of a municipality in Minas Gerais. **Methods:** descriptive, cross-sectional study with a quantitative approach, carried out with 100 elderly people during dental care in a public clinic and in a reference center. The data were treated using simple descriptive statistical analysis. **Results:** it was observed that the changes not noticeable by the elderly were: dry mouth sensation, decreased taste, decreased salivary flow and increased gingival problems. These consider it impossible to avoid tooth loss, however they reported that care for the remaining teeth and periodic consultation with the dentist are necessary. The reasons for seeking the professional were: toothache, gum pain, need for dental treatment and mouth injury. **Conclusion:** the elderly showed a satisfactory perception of their oral health. You are aware of oral changes resulting from aging, as well as care.

Descriptors: Perception, Oral health, Health of the elderly, Geriatric dentistry, Public health.

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RESUMO

Objetivo: Analisar a autopercepção de saúde bucal por idosos atendidos pelo sistema público de um município de Minas Gerais. **Métodos:** estudo descritivo, transversal, com abordagem quantitativa, realizada com 100 idosos durante o atendimento odontológico em uma clínica pública e em um centro de referência. O tratamento dos dados se deu por meio de análise estatística descritiva simples. **Resultados:** observou-se que as alterações não perceptíveis pelos idosos foram: sensação de boca seca, diminuição do paladar, diminuição no fluxo salivar e aumento dos problemas gengivais. Estes consideram ser impossível evitar a perda dentária, todavia relataram que cuidados com os dentes remanescentes e consulta periódica ao dentista são necessários. Os motivos da procura pelo profissional foram: dor de dente, dor na gengiva, necessidade de tratamento dentário e lesão na boca. **Conclusão:** os idosos apresentaram uma percepção satisfatória de sua saúde bucal. Tem ciência das alterações bucais advindas do envelhecimento, bem como dos cuidados.

Descritores: Percepção, Saúde bucal, Saúde do idoso, Odontologia geriátrica, Saúde pública.

RESUMEN

Objetivo: Analizar la autopercepción de salud bucal por ancianos asistidos por el sistema público de una ciudad de Minas Gerais. **Métodos:** estudio descriptivo, transversal, con enfoque cuantitativo, realizado con 100 ancianos durante la atención odontológica en una clínica pública y en un centro de referencia. Los datos fueron tratados mediante análisis estadístico descriptivo simple. **Resultados:** se observó que los cambios que los ancianos no notaron fueron: sensación de boca seca, disminución del sabor, disminución del flujo salival y aumento de los problemas gingivales. Estos consideran imposible evitar la pérdida de dientes, pero informaron que es necesario cuidar los dientes restantes y consultar periódicamente con el dentista. Las razones para buscar al profesional fueron: dolor de muelas, dolor de encías, necesidad de tratamiento dental y lesiones en la boca. **Conclusión:** los ancianos mostraron una percepción satisfactoria de su salud bucal. Tiene consciencia de los cambios orales resultantes del envejecimiento, así como de la atención.

Descriptorios: Percepción, salud bucal, Salud del anciano, Odontología geriátrica, Salud pública.

INTRODUCTION

The population is aging all over the world. Aging can be defined as a unique process for each individual, in order to cause an increase in the elderly population due to the improvement of life habits during their senile phase (senescence). This phase is a biological process, which is also a social and cultural factor, and should be understood as a stage of life in which biopsychosocial changes can affect the individual in his general context.¹⁻²

In Brazil, the senile process of the population occurs quickly and intensely, with a notable increase in life expectancy in the coming decades.³ This growth is due to the improvement in quality of life (QOL) among the elderly, with a focus on biopsychosocial aspects. Knowing the physiological process of senescence, as well as having a self-critical perception of it, contributes to healthy aging.⁴

Self-rated health is an understanding that a person makes of their health status and experiences in the context of their daily lives. This conduct is based, in general,

on information and accessible knowledge of health and disease, mediated by previous experience and the social, cultural and historical context. This type of knowledge in relation to the health of the population helps to guide political and social decisions that aim at QOL and not only physical health. Knowing the determinants of self-rated oral health (OH) is very important to understand the behavior of individuals and how they weigh their needs. In individual dental care, the routine investigation of self-rated health is important to increase individuals' adherence to healthy behaviors. Among the elderly, this is even more relevant, because even in countries that have programs specifically targeted at this age group, the main reason for this group not to seek dental services is not to analyze their own need.⁵

Generally, elderly people attribute positive values to their OH, even with unfavorable clinical conditions. The variables referring to the impact of OH on QOL, on its hand, commonly appear associated with self-perception, although it is still necessary to better understand the basic elements that determine this self-perception of OH.⁶

The relation between OH and general health is complex, especially in the elderly. Some unfavorable health conditions in general, more prevalent in this age group, can act as predisposing factors for impairment of OH, such as diabetes mellitus (DM), which can induce dry mouth and reduce salivary flow. Oral conditions more prevalent among the elderly, such as tooth loss and periodontal disease, can act as predisposing factors for malnutrition and restriction on food intake. In this scenario, care with OH is an essential condition for healthy aging. Therefore, it is important to focus on the relation between self-perceived OH in the elderly and their general health condition.⁷⁻⁸

Thus, the objective was to analyze the self-perception of elderly people seen at a public dental clinic and at a reference center in a municipality in Minas Gerais regarding their OH.

METHODS

Monograph article entitled "Mitos e verdades sobre o envelhecimento: percepção de idosos" presented to the Department of Dentistry of the Universidade Estadual de Montes Claros/UNIMONTES. Montes Claros (MG), Brazil. 2015.

This is a descriptive, cross-sectional study, with a quantitative approach, carried out with 100 elderly people of both sexes attended in dental offices during the course of Integrated Clinic III of the Dentistry course at the Universidade Estadual de Montes Claros (UNIMONTES) and at the Reference Center for Elderly Health Care (Centro de Referência em Atenção à Saúde do Idoso — CRASI) in the municipality of Montes Claros, Minas Gerais.

The following inclusion criteria were adopted for participation in the study: being elderly (60 years old or

older); have registration at UNIMONTES dental clinics and at CRASI; having the OH monitored by the referred institutions; and be able to answer the proposed questions. The following exclusion criterion was adopted: elderly people with cognitive, understanding, reasoning and/or communication difficulties.

A letter of introduction and a Term of Institutional Agreement (Termo de Concordância Institucional — TCI) were sent to the Coordination of the Dental Clinic of UNIMONTES, as well as to the Coordination of CRASI, for authorization of the study. The institutions were duly informed about the research guidelines and they signed the TCI in order to authorize the research. Data collection was carried out in the second semester of 2015, during the period from September to December, by the responsible researcher, through the application of a semi-structured questionnaire, containing subjective and objective questions, prepared by the authors, in the form of an interview.

A semi-structured questionnaire, adapted and validated, was used as an instrument for data collection. It was structured in six domains in which they were categorized as follows: (1) Profile of the elderly in the Integrated Clinic III (age, sex, marital status, color, income, education and origin); (2) Perception of OH (not feeling pain in the mouth, good teeth, treated teeth); (3) Perceived oral changes (decreased taste, decreased saliva, dry mouth, increased gum problems); (4) Reasons and frequency that lead the elderly to dental appointments (wound in the mouth that does not heal, toothache, gum pain, need for dental treatment, frequency of consultation with the dentist); (5) Perception of OH and systemic health (loss of teeth causes damage to your health; it is impossible to avoid loss of teeth); (6) Care for OH reported by the elderly in the Integrated Clinic III of UNIMONTES (need to brush your teeth, need to floss every day, hard brush cleans your teeth better).

After data collection, descriptive statistical analysis was performed using the *Predictive Analytics Software* (PASW) 22 program, the results being expressed in tables. A Chi-Square test (χ^2) was performed, with p-value < 0.05, to verify the association of the elderly's profiles with the self-perception variables.

The participants were duly informed about the study guidelines in which they signed the Free and Informed Consent Form (Termo de Consentimento Livre e Esclarecido — TCLE) in order to authorize the research.

The study followed the ethical precepts established by Resolution No. 510, of April 7, 2016, of the National Health Council (Conselho Nacional de Saúde — CNS), which regulates the conduct of research involving human beings.⁹ The research project was assessed and approved by the Research Ethics Committee of the State University of Montes Claros (Comitê de Ética em Pesquisa da Universidade Estadual de Montes Claros — CEP UNIMONTES) under

the substantiated approval No. 1.322.464/2015, Certificate of Presentation for Ethical Appreciation (Certificado de Apresentação para Apreciação Ética — CAAE) No. 50668915.1.0000.5146.

RESULTS AND DISCUSSION

There was a prevalence of elderly women (n=64; 64%), aged 70-79 years (n=45; 45%), married/cohabited (n=63; 63%), the majority declared themselves white (n=57; 57%), had family income between 1-2 minimum wages (n=90; 90%), completed high school (n=42; 42%) and were originated from other municipalities in Minas Gerais (n=55; 55%) (Table 1).

Table 1 – Socioeconomic and demographic profile of the elderly attended at UNIMONTES dental offices and at CRASI. Montes Claros, 2015. (n=100)

Variables	n	%	
Sex	Male	36	36.0
	Female	64	64.0
Age group (years)	[60-69]	31	31.0
	[70-79]	45	45.0
	[80-89]	18	18.0
	≥90	06	6.0
Marital status	Single	12	12.0
	Married/Cohabited	63	63.0
	Divorced	17	17.0
	Widowed	08	8.0
Color/Ethnicity	White	57	57.0
	Black	13	13.0
	Brown	30	30.0
	Asian	00	0.0
	Indigenous	00	0.0
Income	No income or <01 MW	05	5.0
	1-2 MW	90	90.0
	3-4 MW	05	5.0
	≥ 05 MW	00	0.0
Scholarity	Illiterate	07	7.0
	Incomplete elementary school	13	13.0
	Complete elementary school	11	11.0
	Incomplete middle school	05	5.0
	Complete middle school	08	8.0
	Incomplete high school	10	10.0
	Complete high school	42	42.0
	Incomplete higher education	01	1.0
Origin	Complete higher education	03	3.0
	Montes Claros	45	45.0
	Others	55	55.0

Source: Own authorship, 2015.

Regarding the perception of the elderly about OH, most of them associate it with the absence of pain (n=67; 67%), having good teeth (n=96; 96%) and having their teeth treated periodically (n=84; 84%) (Table 2). With this, the study sample presents a satisfactory perception of its OH, however it is not restricted only to local sensory perceptions or the dental structure, in order to relate the systemic health with the OH.

Table 2 – Perception of OH of the elderly attended at UNIMONTES dental offices and at CRASI. Montes Claros, 2015. (n=100)

Variables	YES		NO		p-value
	n	%	n	%	
Do not feel mouth pain	67	67.0	33	33.0	0.2917
Good teeth	96	96.0	04	4.0	
Treated teeth	84	84.0	16	16.0	

Source: Own authorship, 2015.
p<0.05.

During the aging process, the presence of physiological changes in the oral region resulting from this phase is noticeable. The majority of the sample seen in the office reported the perception of a decrease in salivary flow (n=51; 51%), xerostomia in which it corresponds to the feeling of dry mouth (n=79; 79%) and an increase in gingival problems (n=54; 54%). Regarding decreased taste, most reported not having it (n=58; 58%) (Table 3)

Table 3 – Oral changes perceived by elderly people seen at UNIMONTES dental offices and at CRASI. Montes Claros, 2015. (n=100)

Variables	YES		NO		p-value
	n	%	n	%	
Decreased taste	42	42.0	58	58.0	0.3061
Decreased salivary flow	51	51.0	49	49.0	
Dry mouth sensation (xerostomia)	79	79.0	21	21.0	
Increased gum problems	54	54.0	46	46.0	

Source: Own authorship, 2015.
p<0.05.

OH care must be performed at all stages of the life cycle. The elderly, in turn, do not have routine care with their OH, so they seek dental services in very specific situations. In this study, the elderly were motivated to seek a dental appointment in which they reported a wound in the mouth difficult to heal (n=90; 90%), toothache (n=80; 80%), gum pain (gingivitis) (n=85; 85%) and the need for some dental treatment (n=85; 85%). For this, most consultations were carried out every six months (n=50; 50%) (Table 4). The loss of teeth, the use of dental prostheses, poor oral hygiene, cavities, among others, are some of the most recurrent causes for the development of the clinical symptoms described, as well as for motivating people to seek an appointment with the dentist.

Table 4 – Motivation and frequency of the elderly regarding the search for dental care in UNIMONTES clinics and CRASI. Montes Claros, 2015. (n=100)

Variables	YES		NO		p-value	
	n	%	n	%		
Motivation	Wound in the mouth that does not heal	90	90.0	10	10.0	0.3184
	Toothache	80	80.0	20	20.0	
	Gum pain	85	85.0	15	15.0	
	Need for dental treatment	85	85.0	15	15.0	
	Others	45	45.0	55	55.0	
Frequency	Once a semester	50	50.0	50	50.0	0.9687
	Once a year	30	30.0	70	70.0	
	Once in each two years	10	10.0	90	90.0	
	≥ 36 months	05	5.0	95	95.0	
	When necessary	05	5.0	95	95.0	

Source: Own authorship, 2015.
p<0.05.

The majority of the elderly in this sample understand that, in relation to the general health view, the loss of teeth causes damage to their health (n=85; 85%) and that it is possible to avoid losing them (n=60; 60%).

Table 5 – General health perception reported by elderly people seen at UNIMONTES dental offices and at CRASI. Montes Claros, 2015. (n=100)

Variables	YES		NO		p-value
	n	%	N	%	
Tooth loss brings harm to your health	85	85.0	15	15.0	0.1566
It is possible to prevent tooth loss	60	60.0	40	40.0	

Source: Own authorship, 2015.
p<0.05.

As for the care with OH reported by the elderly, the need for toothbrushing (n=100; 100%) and the use of dental floss every day (n=90; 90%) are stated by the majority of the sample. Cleaning the teeth using a hard toothbrush is not done by most of the sample. They reported using soft bristle toothbrushes for their oral hygiene.

Table 6 – Care with OH reported by elderly people seen at UNIMONTES dental offices and at CRASI. Montes Claros, 2015. (n=100)

Variables	YES		NO		p-value
	N	%	N	%	
Need to brush teeth	100	100.0	-	-	1.1552
Need to floss every day	90	90.0	10	10.0	
Hard toothbrush cleans teeth better	40	40.0	60	60.0	

Source: Own authorship, 2015.
p<0.05.

The perception of OH is associated with the physical and subjective aspects related to the oral cavity, being influenced by socioeconomic factors, such as the age, sex and social class of the individual.¹⁰ Thus, it is important that the socioeconomic characteristics are investigated. Thus, regarding the profile of the elderly, it was found that the female sex was predominant (n=64; 64%). Corroborating this study, other authors^{2,11-12} demonstrated in their research a “feminization” of old age, with a predominance of females, due to the life expectancy of this group being higher than that of males. Regarding the age group, most of the interviewees were over 70 years old, married, had schooling and low family income. It is important to note that socioeconomic and cultural factors can evidence the level of information of individuals, interfering in the adoption of healthy behaviors and the importance given to OH. Thus, it is perceived by the elderly in this study that the absence of mouth pain, having good teeth and treating them periodically favors the maintenance of their OH and provides an increase in QOL. This finding corroborates with another study¹¹ in which has been described that there is a correlation of OH with the absence of pain and the presence of good teeth.

Among the clinical changes resulting from the aging process, there is a reduction in taste capacity and changes in the salivary glands.¹³ These same authors describe that the taste is altered, as there is a significant decrease in the taste buds in the papillae, especially after seventy years of age. In contrast to the literature, the majority of respondents in this study, who were over 70 years old, reported that with the aging process they do not perceive changes or decreased taste. Still, according to the study¹³, the salivary glands undergo an advanced degeneration process with aging, with a functional loss of 20-30%, which causes a reduction in salivary flow and makes saliva more viscous. The results of the literature corroborate this study, in which

the majority of the elderly interviewed stated that there is a decrease in saliva and a feeling of dry mouth (xerostomia).

As for the reasons that led the elderly to dental consultations, it is clear that the gum pain and the need for dental treatment contributed greatly to the demand for the dentist. However, the majority reported that oral wounds that delay the healing time are a major factor in increasing the demand for dentists. Scholars claim that approximately 85.26% of the elderly have dental complaints such as: presence of pain; lack of teeth; and sore in the mouth.¹⁴ When investigating the dental conditions of Brazilian elderly people, positive self-perceived OH was detected, despite the precarious dental conditions of these elderly people who needed dental treatment, and showed painful sensitivity of teeth and gums.⁵ Regarding the frequency of consultation with the dentist, most of the interviewees reported consulting the dentist every six months. It is worth mentioning that, in old age, visits to the doctor increase, contrary to what happens with visits to the dentist. This low frequency of visits to the dentist may be related to the setback of access to dental services or an analysis of no need due to edentulism.¹⁵ However, it is wrong to say that the lack of teeth makes the need for preventive measures disappear, just as the idea that the elderly lose their teeth with advancing age is incorrect.

The elderly interviewed are aware that tooth loss causes damage to their health, however they believe it is impossible to prevent this loss. The condition of OH in the Brazilian elderly is still in a very delicate situation. There is an increase in the number of edentulous individuals that characterize the elderly population who are at a disadvantage in terms of masticatory capacity and, consequently, interfere negatively in QOL.¹⁶ Considering that tooth extractions are definitive, it should be noted that, for this group of elderly people, the loss of teeth causes other health problems, and edentulism after 60 years affects chewing, taste, digestion, language, phonation and aesthetic that will intervene in their biopsychosocial aspects.¹⁷

It is interesting to report that all the elderly in this study stated that there is a need to brush their teeth. This perception demonstrates that the interest in cleaning teeth has always been present to a greater or lesser extent in the history of mankind.¹⁸ In many societies, cleaning teeth has been recognized as a desirable social habit, as well as a way to ward off diseases. Through the history of oral hygiene, it was observed that the reasons that lead individuals to clean their teeth are: the search to relieve the discomfort caused by the impact of food, the attempt to become more sensual through perfumed breath, religious demands, vanity and care for bodily health. Since 1987, it has been announced in a study that the maintenance of OH can lead to an increase in self-esteem and an effective social interaction, which raises the QOL of individuals.¹⁹ Among the care with OH reported by most of the elderly studied, there is the need for daily flossing. Properly used dental floss effectively replaces

the popular toothpick, which in addition to harming the gums, still excessively forces the space between neighboring teeth and does not remove plaque, the great villain of oral diseases.⁷ Simple oral hygiene habits such as flossing and toothbrushing prevent the two oral diseases responsible for tooth loss, which are caries and periodontal disease. With regard to the use of brushes, most of the elderly studied said that hard brushes do not clean teeth better. It is found by other authors that soft brushes are more suitable for dental hygiene, since hard bristles can prove wear and gingival recession.²⁰ With advancing age, care with OH decreases and that the elderly report feeling satisfied with their OH condition, in addition, the subjects reported that the total absence of teeth does not necessarily attribute negative values to this condition.²¹

CONCLUSIONS

Most elderly people have a satisfactory perception of their current OH condition. They are aware of oral changes resulting from the aging process, as well as care measures. They consider it impossible to avoid tooth loss, however, they reported that care for the remaining teeth and periodic consultation with the dentist are necessary. Thus, the perception of the elderly about OH is important, as it provides a better knowledge of their current needs presented, in addition to favoring the execution of a care plan more appropriate to this population.

REFERENCES

1. Trapé AA, Marques RFR, Lizzi EAS, Yoshimura FE, Franco LJ, Zago AS. Associação entre condições demográficas e socioeconômicas com a prática de exercícios e aptidão física em participantes de projetos comunitários com idade acima de 50 anos em Ribeirão Preto, São Paulo. *Rev. Bras. Epidemiol.* [Internet]. 2017 [cited 2018 nov 20];20(2):355-67. Available from: <http://dx.doi.org/10.1590/1980-5497201700020015>.
2. Souza EHA, Barbosa MBCB, Oliveira PAP, Espindola J, Gonçalves KJ. Impacto da saúde bucal no cotidiano de idosos institucionalizados e não institucionalizados da cidade do Recife (PE, Brasil). *Ciênc. Saúde Colet.* [Internet]. 2010 [cited 2018 nov 20];15(6):2955-64. Available from: <http://dx.doi.org/10.1590/S1413-81232010000600034>.
3. Andrade FCD, Wu F, Lebrão ML, Duarte YAO. Expectativa de vida sem depressão aumenta entre idosos no Brasil. *Rev. Saúde Pública* [Internet]. 2016 [cited 2018 nov 29];50(12):1-9. Available from: <http://dx.doi.org/10.1590/S0102-311X2006000800018>.
4. Campos ACV, Ferreira EF, Vargas AMD. Determinantes do envelhecimento ativo segundo a qualidade de vida e gênero. *Ciênc. Saúde Colet.* [Internet]. 2015 [cited 2018 dec 2];20(7):2221-37. Available from: <http://dx.doi.org/10.1590/1413-81232015207.14072014>.
5. Milagres CS, Tôrres LHN, Neri AL, Sousa MLR. Condição de saúde bucal autopercebida, capacidade mastigatória e longevidade em idosos. *Ciênc. Saúde Colet.* [Internet]. 2018 [cited 2018 dec 2];23(5):1495-1506. Available from: <http://dx.doi.org/10.1590/1413-81232018235.14572016>.
6. Rigo L, Basso K, Pauli J, Cericato GO, Paranhos LR, Garbin RR. Satisfação com a vida, experiência odontológica e autopercepção da saúde bucal entre idosos. *Ciênc. Saúde Colet.* [Internet]. 2015 [cited 2018 dec 10];20(12):3681-8. Available from: <http://dx.doi.org/10.1590/1413-812320152012.18432014>.
7. Oliveira MES, Boery RNSO, Sales ZN, Boery EN. Idosa sim, edêntula talvez. *Rev. Saúde.Com* [Internet]. 2006 [cited 2018 dec

- 11];2(2):115-26. Available from: <http://www.uesb.br/revista/rsc/v2/v2n2a3.pdf>.
8. Gabardo MCL, Moysés SJ, Moysés ST, Olandoski M, Olinto MTA, Pattussi MP. Análise em multinível da autopercepção em saúde bucal e fatores associados em adultos do Sul do Brasil: um estudo transversal. *Cad. Saúde Pública* [Internet]. 2015 [cited 2018 dec 20];31(1):49-59. Available from: <http://dx.doi.org/10.1590/0102-311X00037814>.
 9. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Resolução nº 510, de 7 de abril de 2016. Regulamenta a realização de pesquisa envolvendo seres humanos e dá outras providências. Brasília: CNS, 2016. Available from: http://bvsms.saude.gov.br/bvs/saudelegis/cns/2016/res0510_07_04_2016.html.
 10. Carvalho C, Manso AC, Escoval A, Salvado F, Nunes C. Autopercepção da saúde bucal em idosos de uma população urbana em Lisboa, Portugal. *Rev. Saúde Pública* [Internet]. 2016 [cited 2018 dec 30];50(53):1-9. Available from: <http://dx.doi.org/10.1590/S1518-8787.2016050006311>.
 11. Reis SCGB, Marcelo VC. Saúde bucal na velhice: percepção dos idosos, Goiânia, 2005. *Ciênc. Saúde Colet.* [Internet]. 2006 [cited 2018 dec 30];11(1):191-9. Available from: <http://dx.doi.org/10.1590/S1413-81232006000100028>.
 12. Agostinho ACMG, Campos ML, Silveira JLGC. Edentulismo, uso de prótese e autopercepção de saúde bucal entre idosos. *Rev. Odontol. UNESP* [Internet]. 2015 [cited 2019 jan 10];44(2):74-9. Available from: <http://dx.doi.org/10.1590/1807-2577.1072>.
 13. Pauli TP, Figueiredo DR, Barbosa AR, Castro RG, Mello ALSF. Saúde bucal de idosos com 80 anos ou mais: condição, autopercepção e utilização de serviços odontológicos. *Rev. Odontol. UNESP* [Internet]. 2018 [cited 2019 jan 30];47(5):291-7. Available from: <http://dx.doi.org/10.1590/1807-2577.08618>.
 14. Nogueira CMR, Falcão LMN, Nuto SAS, Saintrain MVL, Vieira-Meyer APGF. Autopercepção de saúde bucal em idosos: estudo de base domiciliar. *Rev. Bras. Geriatr. Gerontol.* [Internet]. 2017 [cited 2019 feb 1];20(1):7-19. Available from: <http://dx.doi.org/10.1590/1981-22562017020.160070>.
 15. Bitencourt FV, Corrêa HW, Toassi RFC. Experiências de perda dentária em usuários adultos e idosos da Atenção Primária à Saúde. *Ciênc. Saúde Colet.* [Internet]. 2019 [cited 2019 dec 10];24(1):169-80. Available from: <http://dx.doi.org/10.1590/1413-81232018241.09252017>.
 16. Andrade FB, Teixeira DSC, Frazão P, Duarte YAO, Lebrão ML, Antunes JLF. Perfil de saúde bucal de idosos não institucionalizados e sua associação com autoavaliação da saúde bucal. *Rev. Bras. Epidemiol.* [Internet]. 2018 [cited 2019 feb 19];21(suppl. 2):1-14. Available from: <http://dx.doi.org/10.1590/1980-549720180012.supl.2>.
 17. Nascimento JE, Magalhães TA, Souza JGS, Sales MSM, Nascimento CO, Lopes Júnior CWX et al. Associação entre o uso de prótese dentária total e o tipo de serviço odontológico utilizado entre idosos edêntulos totais. *Ciênc. Saúde Colet.* [Internet]. 2019 [cited 2019 dec 19];24(9):3345-56. Available from: <http://dx.doi.org/10.1590/1413-81232018249.23002017>.
 18. Brasil PRC, Santos AM. Desafios às ações educativas das Equipes de Saúde Bucal na Atenção Primária à Saúde: táticas, saberes e técnicas. *Physis (Rio J.)* [Internet]. 2018 [cited 2019 mar 3];28(4):e280414. <https://doi.org/10.1590/S0103-73312018280414>.
 19. Baiju RM, Peter ELBE, Varghese NO, Sivaram R. Oral health and quality of life: current concepts. *J. Clin. Diagn. Res.* [Internet]. 2017 [cited 2019 mar 15];11(6):ZE21-ZE26. Available from: <https://doi.org/10.7860/JCDR/2017/25866.10110>.
 20. Lago JD, Fais LMG, Montandon AAB, Pinelli LAP. Programa educacional em saúde bucal para cuidadores sobre a higiene oral de idosos dependentes. *Rev. Odontol. UNESP* [Internet]. 2017 [cited 2019 mar 15];46(5):284-91. Available from: <http://dx.doi.org/10.1590/1807-2577.23916>.
 21. Ribeiro CG, Cascaes AM, Silva AER, Seerig LM, Nascimento GG, Demarco FF. Edentulism, severe tooth loss and lack of functional dentition in elders: a study in Southern Brazil. *Braz. Dent. J.* [Internet]. 2016 [cited 2019 mar 15];27(3):345-52. Available from: <http://dx.doi.org/10.1590/0103-6440201600670>.

Received on: 05/02/2020

Required Reviews: 05/02/2020

Approved on: 10/02/2020

Published on: 31/08/2021

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The authors claim to have no conflict of interest.