



## Health condition and oral hygiene combined with quality of life of institutionalized elderly women

<https://doi.org/10.56238/homeIIsevenhealth-129>

**Andressa Nunes Oliveira**  
**Luana Mussi Marques**  
**Gilmar Antoniassi Junior**

### 1 INTRODUCTION

Between 2012 and 2021 the Brazilian population suffered a drop in the number of people under 30 years of age, while in all groups above this age group there was an increase in the same period. Considering this information, the share of people aged 60 or over jumped from 11.3% to 14.7% of the population (IBGE, 2022) and, according to the projection graphs of the Brazilian Institute of Statistical Geography (2022), this index tends to continue increasing in the coming years. It can be said that this increase in the elderly population is mainly a consequence of the decline in birth rates and the increase in life expectancy, resulting from technological progress in the fields of science, especially in the health area (HEIN; ARAGAKI, 2012, p. 2142).

When we talk about population aging it is worth mentioning that this issue generates an impact in relation to the country's public health problems, caused mainly by the increase in chronic-degenerative diseases and their consequences, which are common to this public (FERREIRA et al., 2012, p. 75).

These diseases, such as Alzheimer's, Parkinson's, Diabetes and many others directly affect the functional and intellectual capacity of the elderly, making it difficult to perform basic daily activities such as walking, dressing, eating and even oral hygiene, very important for maintaining health. This causes a need for monitoring and creation of related public policies, as well as the construction and structuring of long-term institutions, since many end up being forced to reside in these shelters due to the need for greater care and lack of independence.

The loss of teeth is also a worrying factor of this age group, despite all the resources that Dentistry offers to mitigate the damage caused by this loss, such as the use of prostheses for example, the lack of financial resources, lack of knowledge and help from relatives and professionals in the area prevent the use of these resources (OLIVEIRA, 2013).

With regard to oral health, institutionalized elderly have a greater precariousness in relation to the rest of the inhabitants. Edentulism is the most frequent problem and can lead to difficulty in



chewing, speaking and swallowing, as well as mucosal bleeding problems, decreased salivation, as a side effect of medications, presence of fungi in dental prostheses, increased periodontitis and gingivitis and this condition tends to worsen as these patients begin to have physical and motor difficulties (BELK, 2019).

In addition to considering dental problems as a cause of pain and discomfort, we must also pay attention to the generalized harm to health that can lead to the development of infectious diseases such as endocarditis pneumonia dietary restrictions with consequent weight loss and malnutrition and damage to self-esteem and relationships with other individuals, generating social isolation and depressive states (AGUIAR *et al.*, 2017).

Taking into account all the issues addressed, there is still a determining factor for the health care of the elderly, which is their self-perception. Self-assessment can directly affect survival and can be classified as a mortality indicator. People with a worse perception have a higher risk of death, be it from any cause, in reference to people who report excellent health. In addition, this perception can also be related to the reduction of its functionality, since physical, psychological, emotional and social problems generate feelings of fragility and insecurity, reflecting negatively on the performance of activities. Thus, the interaction between the points that affect the perception of the elderly interferes with their quality of life, concluding that it is necessary to ensure greater longevity, as well as happiness, well-being and personal satisfaction (BORGES *et al.*, 2014).

According to the Resolution of the Collegiate Board of the National Health Surveillance Agency - RDC/ANVISA No. 283, of September 26, 2005 (BRASIL, 2005) there is a regulation for long-term institutions (ILPI) to act, and should provide a service that guarantees health and quality of life to residents. For this, it is necessary a multidisciplinary team that must be composed of nurse, nursing technician, doctor, nutritionist, psychologist, social worker, physiotherapist, physical educator, caregivers and responsible for general services and these professionals must act in a complementary way according to the degree of dependence of each elderly (SILVA; SANTOS, 2010). In addition to the body of trained professionals, the ILPI must also have adequate infrastructure and accommodation to serve this public, as well as leisure, educational, cultural and sports activities.

The nursing team is responsible for ensuring that all elderly people receive adequate assistance to perform basic activities such as personal hygiene, because impurities and microorganisms present in the body can cause infections, unpleasant odors in addition to the bath promotes relaxation for this individual (LENARDT *et al.*, 2006). Some elderly people need to wear diapers, due to the inability sometimes physical, sometimes intellectual to move around or even control the physiological needs, and need to be changed from time to time to avoid diaper rash, appearance of diseases and stench. Help is needed to change them because with advancing age, movements become increasingly limited and there may be a risk of falling and possible fractures since the bone condition is also impaired by this



advance. It is these professionals who will also observe signs and symptoms of possible diseases, perform the administration and control of medications, make dressings and assess the vital signs of each patient (SANTOS *et al.*, 2008).

Adequate nutrition is one of the most important aspects for quality health and maintenance of life (KÜMPEL *et al.*, 2013), for this reason the performance of the nutritionist is indispensable within the institutions because it is he who will diagnose the nutritional status and prescribe the diet according to the health status of each one, since it is common to have physiological, bodily changes and chronic pathologies related to this public (QUADROS; PATROCINIO, 2015).

As previously reported, as the person ages, he becomes more vulnerable in relation to his health and this vulnerability does not only concern physiology itself, but also psychosocial factors, which can lead to cognitive disorders, psychomotor and intellectual is where it becomes essential the action of the psychologist within the institution because it is he who will treat these deficits and disorders, promote individual and group psychotherapies as well as cognitive rehabilitation, guidance and counseling to family members and psychological support to professionals who care for the elderly (CARDOZO, 2009).

According to the World Health Organization (WHO, 2005) physical exercise has the ability to reduce chronic degenerative diseases, heart, respiratory, hearing, prevent stroke and diabetes, so it is an adjunct to improving the quality of life. It is important to remember that elderly residents in ILPIs are usually very debilitated, which makes it necessary to carry out specific monitoring that must be done by physiotherapists and physical educators, considering that many are bedridden and because they stay so long they end up losing the ability to move, they may feel pain due to joint diseases and the practice of physical activity can enhance their muscular actions, stimulate the members rescuing self-esteem and autonomy, so the importance of remaining physically active (GUIMARÃES *et al.*, 2017).

## 2 OBJECTIVE

In view of the facts presented, this work was concerned with verifying the health condition and oral hygiene associated with quality of life in the investigation of autonomy and self-perception of elderly people residing in long-term care institutions; pointing out how the implementation of health promotion actions guided by objective 3 and 16 of the sustainable development objectives proposed by the 2030 agenda to reduce the damage caused by advancing age, ensuring access to health in the construction of effective and responsible institutions (UN, 2023) in the care of institutionalized elderly people.



### 3 METHODOLOGY

The study proposed here is a qualitative-quantitative approach research of an applied nature of the descriptive and exploratory type that used the *action research method* for configuring the active observation of care actions with the institutionalized elderly person and promoting practices that collaborate to promote the development of skills aimed at improving the health care of the elderly.

In view of the above, the investigation took place in an ILP, located in a Medium-sized City in the interior of the State of Minas Gerais, Brazil, in the Alto Paranaíba region. According to data from the Brazilian Institute of Geography and Statistics ([IBGE] 2021), the population estimate in 2021 is 154,641 inhabitants, of which 16,359 inhabitants are aged 60 and over. The city has 3 (three) ILP with approximately 97 elderly residents in its entirety (BRASIL, 2020).

For this purpose, the study was presented to the Research Ethics Committee of Faculdade Patos de Minas. It was only carried out after the approval of the CEP/FPM through CAEE: 57804222.1.0000.8078 under opinion: 5.379.591. The study sample occurred through the non-probabilistic method in a random, intentional and convenience manner, which resulted in the participation of 16 elderly women who met the inclusion criteria defined by being residents in a long-stay institution, aged 60 years and over and who were in lucid conditions; those who did not exclusively meet the inclusion criteria were excluded.

Data collection took place through a questionnaire prepared according to studies by Camelier (2004); Lino *et al.* (2008); Nunes *et al.* (2015) and Oliveira (2019), entitled *Questionnaire for Investigation of the Health Care Condition of the Elderly*, and the participants signed the Informed Consent Form (ICF).

Initially, a previously defined day and time was established with the institution so that the researchers could attend the ILP. Two visits were made to the institution, the first visit with the purpose of collecting the information of the questionnaire and the second with the purpose of training the team of caregivers in relation to the care for oral hygiene of the elderly. To collect the information from the questionnaire, a space was made available to which the researchers could interact properly with the participants, on average the application of the questionnaire lasted approximately 30 (thirty) minutes.

To this end, the data were analyzed using SPSS software (version 21) to promote descriptive analyzes with frequencies and percentages, with the information organized in Excel spreadsheets. For the qualitative analyzes, the thematic analysis method (MINAYO, 2014) was used based on the results evidenced in the construction of assumptions that served to articulate with the observations found, to promote the reflections convenient to the purpose of the study.



#### 4 ANALYSIS AND DISCUSSION OF RESULTS

Considering the study participants, with regard to the elderly 100% (n = 20) are women, with an average age of 73.125 years being between 60 and 94 years; regarding the multidisciplinary team of professionals of the institution, it has 3 caregivers, 6 nursing technicians, 2 nurses, 2 psychologists and 2 social workers.

With regard to the knowledge of the team about oral hygiene care for the elderly, there was a possible lack of knowledge of how to precede. In view of this finding, the team was proposed a moment of training on brushing methods for dentate, edentulous, prostheses and bedridden; with the participation of all professionals of the institution as well as the trainees who attend there. During the meeting, it was discussed with the team that oral hygiene can be done by the patient if he has physical and motor conditions to perform it, one should only follow the procedure and in case of need it should be performed for them.

The first guideline was based on saying that initially, the patient should be raised in a straighter way in order to avoid choking during hygiene, brushing is done gently, using a soft bristle brush, always remembering that a large amount of toothpaste is not necessary, syringes with serum or water can be used to clean the remnants of toothpaste. Pecly (2017) states that the elevation of the patient can also reduce the risk of aspiration of both water and saliva and toothpaste foam, as this aspiration by the elderly patient can lead to aspiration pneumonia, requiring attention and care during the brushing process.

The greater the amount of toothpaste on the brush, the greater the amount of foam is produced, this can cause a false sense of cleanliness, decreasing the brushing time, in addition, fluoride is an abrasive product that can cause enamel wear if used excessively (DUCATTI, 2021). Fluoride is present in most toothpastes available on the market today and is a toxic product to the body if ingested too much. The amount of fluoride used during brushing must be within the limits that health surveillance allows to ensure its effectiveness in controlling caries (GESTEIRA *et al.*, 2003) when this limit amount is not respected the chance of swallowing by the patient is great and this ingestion can cause liver damage, stomach problems, calcium deficiency and even lethal poisoning (FERREIRA *et al.*, 2013).

Due to the characteristics of the possibility of the institution having bedridden patients and some having difficulties opening their mouths, the team was instructed to use chlorhexidine 0.12%, which can be used in an amount of 10ml to the mouth by means of a syringe, use gauze, or cotton swab, moistened in it, cleaning the place, wait 30 seconds to 1 minute and remove.

Chlorhexidine gluconate is proven to be the most effective microbial chemical agent for bacterial control in the oral cavity. It hinders the formation of plaque, has antiseptic action that can assist in the cleaning of dentures, helps in the control of gingivitis and is considered anti-caries. For



this reason it is an important substance for maintaining the health of bedridden elderly (AMORIM *et al.*, 2009).

Cleaning the tongue with gauze soaked in chlorhexidine after meals helps to recover the patient's taste ability, promoting better adherence to balanced nutrition, which is of paramount importance for maintaining the health of these elderly (BENATTI; MONTENEGRO, 2008).

It was also discussed with the team the need to use a soft bristle brush and when performing the brushing process, it should be positioned at 45° and sweep the residues out, as well as the need to use dental floss and clean the tongue. As for the hygiene of the prostheses, it was oriented the need to sanitize internally, to remove fungi and bacteria, using larger brushes and with coconut soap.

In relation to dentate patients (common in the elderly population) the use of these brushes, as well as the gentle movements avoid traumatizing the gingival tissues and allow greater capacity to sanitize interproximal areas (SANTOS *et al.*, 2003). Toothbrushes with medium and hard bristles should not be used because they cause scratches on the prostheses which favors accumulation of bacteria and fungi for this reason the soft bristles are the most indicated (CHARMAN *et al.*, 2009). The brushing technique described, called Bass technique showed more effective results in removing plaque, gingival bleeding and decrease of *Lactobacilli*, which are associated with the onset of caries, than compared to other techniques such as the technique of Fones, for example (CHIARELLI; GUIMARÃES; CHAIM, 2001).

Regarding the cleaning of the oral cavity, if not performed correctly, the accumulation of food between the prosthesis and the mucosa, between the teeth or on the tongue can favor the proliferation of microorganisms such as *Candida Albicans*, leading to infectious conditions. Considering that many of the elderly have systemic problems, these infections can aggravate the condition (BIACHI *et al.*, 2016.).

Cleaning with coconut soap is indicated because it is more neutral when compared to other chemical agents and has a low cost. O+s dentifrices also have abrasive agents in their composition so that they can act by removing stains from enamel and biofilm, but prolonged use in prostheses can cause damage to the material such as loss of shine, loss of adaptation and roughness that favor the accumulation of biofilm, for this reason its use was not indicated (PALUDO, 2014). Everything indicates that with regard to care with the oral hygiene of the elderly population requires attention and care by caregivers because the motor capacity of this population is weakened (FREITAS *et al.*, 2012).

In this sense, when investigating the performance of daily activities through the Katz scale, it was possible to identify in the sample of research participants that 70% of the elderly women have a level of dependence (between mild, moderate and total), and 75% are at a level of fragility (between fragile and pre-fragile state) according to data identified in the verification scale of the state of fragility; however, table 1 presents the stratified indicators found in the scales. However, 100% of the elderly



women indicated worsening in their quality of life regarding their health condition according to indicators evidenced in the SF-12 questionnaire.

Table 1. Distribution of indicators of performance of daily activities and level of frailty of the sample of older women participating in the research.

<b>Variables</b>	<b>Frequency</b>
Performance indicators:	
Mild Dependence	15% (3)
Moderate Dependence	15% (3)
Total Dependency	40% (8)
Independence	30% (6)
Indicators of frailty status:	
Fragile	65% (13)
Pre-fragile	20% (4)
Not fragile	15% (3)

Source: Survey data.

Considering the Katz index to analyze the degree of dependence, activities such as bathing, dressing, using the toilet, moving around and eating were observed. In view of the results of table 1, it could be seen that most of the residents, 70%, have some degree of dependence and only 30% are independent.

This information is similar to that obtained in a study carried out in the city of Montes Claros (MG), in which 125 elderly people from 3 institutions were analyzed, mostly women, taking into account the higher female life expectancy in Brazil, where almost 60% of the elderly had levels of dependence (MARINHO *et al.*, 2013).

Frailty was also a factor analyzed, addressing the reduction in grip strength, where the elderly woman reported feeling weaker or stronger in the last 12 months, weight loss, reduced walking speed or movements, low physical activity and reported fatigue where it was described if a great effort was required to perform her routine activities or if she had difficulty completing any task started.

The indicators varied between frail, pre-frail and non-frail based on these activities and an even higher percentage was identified when compared to dependence, according to table 1 it was found that 65% of the elderly were classified as frail, 20% as pre-frail and only 15% as non-frail, that is, 85% had some type of frailty, results similar to a study carried out with 56 elderly residents of ILPI in Ribeirão Preto (SP) where a predominance of 75% of frail elderly was verified (FLUETTI *et al.*, 2018). These are high rates for such a vulnerable public and a subject that requires attention from the responsible bodies.



## 5 FINAL CONSIDERATIONS

Looking in general lines it is evidenced that there is a high rate of dependence and fragility of the elderly residing in long-term institutions, which can lead to damage to both emotional and physical health, predisposing this individual to depressive conditions, hospitalizations and even death.

It is important to note that this study was conducted with a small part of the institutionalized population presenting results for this group, so generalizations require attention and caution.

With advancing age, health care in general becomes more important and essential and the elderly deserve due attention at this time of vulnerability, so the issue of the elderly in Brazil should be treated as a priority by public health services in order to incorporate preventive treatments to ensure greater autonomy, functional independence and, as a consequence, quality of life.

It is thus concluded that a multiprofessional team trained to serve this population is indispensable, in addition to programs that encourage social, cultural, motor and playful activities. Thus, the objective of the study is that the information presented here can contribute to better attention and care for this specific group.





## REFERENCES

- AGUIAR, M. C. A.; PINHEIRO, N. C. G.; MARCELINO, K. P.; LIMA, K. C. Halitosis and associated factors in institutionalized elderly persons. **Revista Brasileira de Geriatria e Gerontologia**, Rio de Janeiro, v. 20, n. 6, p. 856-868, dez. 2017. <http://dx.doi.org/10.1590/1981-22562017020.170160>. Disponível em: <https://www.scielo.br/j/rbgg/a/y3qzrZbdZtrhgn3c7WH55pQ/?lang=en>. Acesso em: 03 set. 2022.
- AMORIM, F.; MELLO, A. L. S. F.; CASTRO, R. G.; AMANTE, C. J.; ERDMANN, A. L. Cuidado à saúde bucal de idosos institucionalizados em Florianópolis: aproximando enfermagem e odontologia. **Extensivo Ufsc**, Florianópolis, v. 6, n. 7, p. 18-28, 7 jan. 2009. Disponível em: <https://periodicos.ufsc.br/index.php/extensio/article/view/1807-0221.2009v6n7p17/10386>. Acesso em: 17 mar. 2023.
- BELKE, T. V. **Autopercepção da saúde bucal em idosos moradores de uma instituição de longa permanência na cidade de Porto Alegre / RS**. 2019. 38 f. TCC (Graduação) - Curso de Odontologia, Universidade Federal do Rio Grande do Sul, Porto Alegre, 2109. Disponível em: <https://www.lume.ufrgs.br/bitstream/handle/10183/205714/001111892.pdf?sequence=1&isAllowed=y>. Acesso em: 02 set. 2022.
- BENATTI, F. G.; MONTENEGRO, F. L. B. A intervenção odontológica colaborando na diminuição das afecções respiratórias dos idosos. **Laboratório Nicolau Online**, São Paulo, v. 9, n. 2, p. 1517-4611, jun. 2008. Disponível em: <http://www.nicolau.com.br/lninforma/montenegro04.htm>. Acesso em: 14 nov. 2022.
- BIACHI, C. M.; BIANCHI, H. A.; TADANO, T.; PAULA, C. R.; HOFFMAN, S. H. D.; LEITE JÚNIOR, D. P. Factors related to oral candidiasis in elderly users and non-users of removable dental prostheses. *Rev Inst Med Trop. São Paulo*, v. 58, n. 17, páginas, 2016. Disponível em: <https://www.scielo.br/j/rimts/a/DXVWbmVtBXxjpdwvWYkP35b/?format=pdf&lang=en>. Acesso em: 31 out. 2022.
- BORGES, A. M.; SANTOS, G.; KUMMER, J. A.; FIOR, L.; MOLIN, V. D.; WIBELINGER, L. M. Autopercepção de saúde em idosos residentes em um município do interior do Rio Grande do Sul. **Revista Brasileira de Geriatria e Gerontologia**, Rio de Janeiro, v. 17, n. 1, p. 79-86, mar. 2014. <http://dx.doi.org/10.1590/s1809-98232014000100009>. Disponível em: <https://www.scielo.br/j/rbgg/a/zLwV8P4ppTrwx67Lz6D7GtM/?format=pdf&lang=pt>. Acesso em: 03 set. 2022.
- BRASIL. Ministério da Mulher, da Família e dos Direitos Humanos. Auxílio Emergencial às ILPIs - Lei 14.018/20: Retificação resultado final ILPIs habilitadas. 2020. Disponível em: <https://www.gov.br/mdh/pt-br/navegue-por-temas/pessoa-idosa/auxilio-emergencial-as-ilpis-lei-14-018-20>. Acesso em: 14 nov. 2022.
- BRASIL. Resolução de Diretoria Colegiada - RDC nº 283, de 26 de setembro de 2005. Regulamento técnico para o funcionamento de instituições de longa permanência para idosos. Diário Oficial da República Federativa do Brasil, Poder Executivo, Brasília, DF, 26 set. 2005. Disponível em: <https://sbgg.org.br/wp-content/uploads/2014/10/rdc-283-2005.pdf>. Acesso em: 20 jan. 2022.
- CAMELIER, A. A. Avaliação da qualidade de vida relacionada à saúde em pacientes com DPOC: estudo de base populacional com o SF-12 na cidade de Pão Paulo-SP. [Tese]. São Paulo (SP): Universidade Federal de São Paulo; 2004.
- CARDOZO, J. P. **As Atuações do Psicólogo em Instituições de Longa Permanência Para Idosos**. 2009. 70 f. TCC (Graduação) - Curso de Psicologia, Centro de Ciências da Saúde, Universidade do



Vale do Itajaí, Itajaí, 2009. Disponível em:

<http://siaibib01.univali.br/pdf/Jessica%20Pereira%20Cardozo.pdf>. Acesso em: 21 out. 2022.

CHARMAN, K. M.; FERNANDEZ, P.; LOEWY, Z.; MIDDLETON, A. M. Attachment of Streptococcus oralison acrylic substrates of varying roughness. **Letters In Applied Microbiology**, [S.L.], v. 48, n. 4, p. 472-477, abr. 2009. Wiley. <http://dx.doi.org/10.1111/j.1472-765x.2008.02551.x>. Disponível em: <https://sfamjournals.onlinelibrary.wiley.com/doi/epdf/10.1111/j.1472-765x.2008.02551.x>. Acesso em: 02 nov. 2022.

CHIARELLI, M.; GUIMARÃES, A.; CHAIM, L. A. F. Avaliação da eficácia das técnicas de escovação dental de Bass e Fones em relação à remoção de placa, diminuição do sangramento gengival e quantidade de Estreptococos Mutans e Lactobacilos na saliva. **Abo Nacional**, São Paulo, v. 9, n. 2, p. 88-93, abr. 2001. Disponível em: <http://www.drchaim.com.br/bass.pdf>. Acesso em: 02 nov. 2022.

DUCATTI, S. A. R. **Excesso de pasta de dente é sinônimo de mais limpeza?** 2021. Disponível em: <https://simpatio.com.br/excesso-pasta-dente/>. Acesso em: 13 nov. 2022.

FERREIRA, F. P. M.; MIRANDA-RIBEIRO, A.; RIANI, J. L. R.; MARINHO, K. R. L.; CAMARGOS, M. C. S. População e políticas: tendências e cenários para Minas Gerais. **Cadernos BDMG**, Belo Horizonte, v. 21, p. 1-85, out. 2012. Semestral. Disponível em: <https://www.bdmg.mg.gov.br/wp-content/uploads/2018/10/Cadernos-BDMG-Ed.-21-Outubro-2012.pdf> Acesso em: 29 ago. 2022.

FERREIRA, R. G. L. A.; MARQUES, R. A. A.; MENEZES, L. M. B.; NARVAI, P. C. Múltiplos aspectos do uso do flúor em saúde pública na visão de lideranças da área de saúde. **Ciência & Saúde Coletiva**, Rio de Janeiro, v. 18, n. 7, p. 2139-2146, jul. 2013. Disponível em: [https://www.scielo.org/article/ssm/content/raw/?resource\\_ssm\\_path=/media/assets/csc/v18n7/29.pdf](https://www.scielo.org/article/ssm/content/raw/?resource_ssm_path=/media/assets/csc/v18n7/29.pdf). Acesso em: 13 nov. 2022.

FLUETTI, M. T.; FHON, J. R. S.; OLIVEIRA, A. P.; CHIQUITO, L. M. O.; MARQUES, S. The frailty syndrome in institutionalized elderly persons. **Revista Brasileira de Geriatria e Gerontologia**, Rio de Janeiro, v. 21, n. 1, p. 60-69, fev. 2018. <http://dx.doi.org/10.1590/1981-22562018021.170098>. <https://www.scielo.br/j/rbagg/a/dQ8FsRKJBkLVD8N4HYcSCKN/?format=pdf&lang=pt>. Acesso em: 14 nov. 2022.

FREITAS, C. V.; SARGES, E. S. N. F.; MOREIRA, K. E. C. S.; CARNEIRO, S. R. Evaluation of frailty, functional capacity and quality of life of the elderly in geriatric outpatient clinic of a university hospital. **Revista Brasileira de Geriatria e Gerontologia**, Rio de Janeiro, v. 19, n. 1, p. 119-128, fev. 2016. <http://dx.doi.org/10.1590/1809-9823.2016.14244>. <https://www.scielo.br/j/rbagg/a/7SMQwFksdwq7FtBRFY9XLGc/?format=pdf&lang=pt>. Acesso em 17 mar. 2023.

GESTEIRA, C. M. M. **A fluoretação em água de abastecimento público no município de Salvador**. 2003. 32 f. Monografia (Especialização) - Curso de Vigilância Ambiental da Saúde, Núcleo de Estudos de Saúde Coletiva, Universidade Federal do Rio de Janeiro, Rio de Janeiro, 2003. Disponível em: [http://www.cems.saude.gov.br/visa/publicacoes/arquivos/monog\\_visa\\_ambiental\\_colet%C3%A2nea.pdf#page=309](http://www.cems.saude.gov.br/visa/publicacoes/arquivos/monog_visa_ambiental_colet%C3%A2nea.pdf#page=309). Acesso em: 13 nov. 2022.

GUIMARÃES, A. C.; DUTRA, N. S.; SILVA, G. L. S.; SILVA, M. V.; MAIA, B. D. L. C. Atividades grupais com idosos institucionalizados: exercícios físicos funcionais e lúdicos em ação transdisciplinar. **Pesquisas Práticas e Psicossociais**, São João del Rei, v. 11, n. 2, p. 443-452, 18 jan.



2017. Disponível em: [http://www.seer.ufsj.edu.br/revista\\_ppp/article/view/1758/1245](http://www.seer.ufsj.edu.br/revista_ppp/article/view/1758/1245). Acesso em: 21 out. 2022.

HEIN, M. A.; ARAGAKI, S. S.; Saúde e envelhecimento: um estudo de dissertações de mestrado brasileiras (2000-2009). **Ciência & Saúde Coletiva**, Rio de Janeiro, v. 17, n. 8, p. 2141-2150, ago. 2012. Disponível em:

[https://www.scielosp.org/article/ssm/content/raw/?resource\\_ssm\\_path=/media/assets/csc/v17n8/24.pdf](https://www.scielosp.org/article/ssm/content/raw/?resource_ssm_path=/media/assets/csc/v17n8/24.pdf). Acesso em: 27 ago. 2022.

INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA - IBGE. Cidades. Rio de Janeiro, 2021. Disponível em: <https://cidades.ibge.gov.br/brasil/mg/patos-de-minas/panorama>. Acesso em: 14 nov. 2022.

INSTITUTO BRASILEIRO DE GEOGRAFIA ESTATÍSTICA - IBGE. **População cresce, mas número de pessoas com menos de 30 anos cai 5,4% de 2012 a 2021**. Rio de Janeiro, 2022. Disponível em: <https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/34438-populacao-cresce-mas-numero-de-pessoas-com-menos-de-30-anos-cai-5-4-de-2012-a-2021>. Acesso em: 27 ago. 2022.

INSTITUTO BRASILEIRO DE GEOGRAFIA ESTATÍSTICA - IBGE. Projeção da população do Brasil e das Unidades da Federação. Rio de Janeiro, 2022. Disponível em: <https://www.ibge.gov.br/apps/populacao/projecao/index.html>. Acesso em: 27 ago. 2022.

INSTITUTO DE PESQUISA ECONÔMICA APLICADA – IPEA. Características das instituições de longa permanência para idosos: Região Sudeste. <https://repositorio.ipea.gov.br/handle/11058/3263>. **Acesso em: 03 set. 2022.**

KÜMPEL, D. A.; SILVEIRA, M. M.; ROCHA, J. P.; JESUS, N. M. L.; BENETTI, F.; PASQUALOTTI, A. Avaliação nutricional e consumo alimentar de idosos institucionalizados: relato de experiência. **Contexto & Saúde**, Ijuí, v. 11, n. 20, p. 777-782, 07 ago. 2013. Disponível em: <https://revistas.unijui.edu.br/index.php/contextoesaude/article/view/1655>. Acesso em: 21 out. 2022.

LENARDT, M. H.; WILLIG, H. M.; SILVA, S. C.; SHIMBO, Y. A.; TALLMANN, C. A. E.; MARUO, G. H. O idoso institucionalizado e a cultura de cuidadores profissionais. **Cogitare Enfermagem**, Curitiba, v. 11, n. 2, p. 117-123, 2006. <https://www.redalyc.org/pdf/4836/483648987004.pdf>. Acesso em: 20 jan. 2022.

LINO, V. T. S.; PEREIRA, S. R. M.; CAMACHO, L. A. B.; FILHO, S. T. R.; BUKSMAN, S. Adaptação transcultural da Escala de Independência em Atividades da Vida Diária (Escala de Katz). **Cad. de Saúde Pública**, v.24, n.1, p.103-112, 2008.

MARINHO, L. M.; VIEIRA, M. A.; COSTA, S. M.; ANDRADE, J. M. O. Grau de dependência de idosos residentes em instituições de longa permanência. **Revista Gaúcha de Enfermagem**, Porto Alegre, v. 34, n. 1, p. 104-110, mar. 2013. <http://dx.doi.org/10.1590/s1983-14472013000100013>. <https://www.scielo.br/j/rgenf/a/ZMcCHLgn79qBZF8cx4PTftS/?format=pdf&lang=pt> Acesso em: 14 nov. 2022.

MINAYO, M. C. S. O desafio da pesquisa social. In Minayo, Maria Cecilia de Souza; Deslandes, Sueli Ferreira; Gomes, Romeu. **Pesquisa social: Teoria, método e criatividade**. p. 9-29, 2013.

NUNES, D. P.; DUARTE, Y.A.; SANTOS, J. L.; LEBRÃO, M. L. Screening for frailty in older adults using a self-reported instrument. **Rev Saude Publica**, v. 49, n. 2, p. 1-9., 2015.



OLIVEIRA, F. T. S. **O impacto do edentulismo na qualidade de vida dos idosos**. 2013. 26 f. Monografia (Especialização) - Curso de Odontologia, Universidade Federal de Minas Gerais, Campos Gerais, 2013. Disponível em: <https://ares.unasus.gov.br/acervo/html/ARES/7614/1/4125.pdf>. Acesso em: 03 set. 2022.

ORGANIZAÇÃO DAS NAÇÕES UNIDAS - ONU. Como as nações unidas apoiam os objetivos de desenvolvimento sustentável no Brasil. Brasília, DF, 2023. Disponível em: <https://brasil.un.org/pt-br/sdgs> acesso em: 20 out. 2022

ORGANIZAÇÃO MUNDIAL DA SAÚDE - OMS. Prevenção de doenças crônicas: um investimento vital. Genebra, 2005. Disponível em: <https://www.nescon.medicina.ufmg.br/biblioteca/imagem/1852.pdf>. Acesso em: 21 out. 2022.

PALUDO, F. M. **Higienização de próteses dentárias removíveis**: uma revisão de literatura. 2014. 57 f. TCC (Graduação) - Curso de Odontologia, Universidade Federal de Santa Catarina, Florianópolis, 2014. Disponível em: <https://repositorio.ufsc.br/bitstream/handle/123456789/123838/TCC%20Vers%C3%A3o%20Final%20BU.pdf?sequence=1&isAllowed=y>. Acesso em: 02 nov. 2022.

PECLY, M. L. G. **Higiene bucal em demência e disfagia**: protótipo de aplicativo para cuidadores. 2017. 54 f. TCC (Graduação) - Curso de Fonoaudiologia, Instituto de Saúde de Nova Friburgo, Universidade Federal Fluminense, Nova Friburgo, 2017. Disponível em: <https://app.uff.br/riuff/bitstream/handle/1/16402/TCC%20Mariana%20de%20Lima%20Goulart%20Peclly%20-%20vers%C3%A3o%20final%20pdf.pdf?sequence=1&isAllowed=y>. Acesso em: 02 nov. 2022.

QUADROS, M. R. S. S.; PATROCINIO, W. P. O cuidado de idosos em Instituições de Longa Permanência e em Centros-Dia. **Kairós Gerontologia**, São Paulo, v. 18, n. 18, p. 77-97, 03 jun. 2015. Disponível em: <https://revistas.pucsp.br/kairos/article/view/26601>. Acesso em: 21 out. 2022.

SANTOS, P. A.; RODRIGUES, J. A.; GARCIA, P. P. N. S. Conhecimento sobre prevenção de cárie e doença periodontal e comportamento de higiene bucal de professores de ensino fundamental. **Cienc Odontol Bras**, [S.L.], v. 6, n. 1, p. 67-74, mar. 2003. Disponível em: <https://bds.ict.unesp.br/index.php/cob/article/view/195/141>. Acesso em: 01 nov. 2022.

SANTOS, S. S. C.; SILVA, B. T.; BARLEM E. L. D.; LOPES, R. S. O papel do enfermeiro na instituição de longa permanência para idosos. **Revista de Enfermagem UFPE On Line**, Pernambuco, v. 2, n. 3, p. 291, 29 jun. 2008. Disponível em: <https://repositorio.furg.br/bitstream/handle/1/1537/PDF%20n%C2%BA%2018.PDF?sequence=1&isAllowed=y>. Acesso em: 21 out. 2022.

SILVA, B. T.; SANTOS, S. S. C. Cuidados aos idosos institucionalizados: opiniões do sujeito coletivo enfermeiro para 2026. **Acta Paulista de Enfermagem**, São Paulo, v. 23, n. 6, p. 775-781, 2010. <https://www.scielo.br/j/ape/a/jPZNH9W5kpwL8GxMqm8nTgc/?lang=pt> Acesso em: 03 set.