

Older people's perception of hearing health promotion

Percepção de idosos na promoção da saúde auditiva

Percepción del mayor en la promoción de la salud auditiva

Graziela Bernardo* 

Dayane Potgurski* 

Daniela Silva* 

Janaina Souza* 

Ivonete Heidemann* 

Aline Arakawa-Belaunde* 

Abstract

Objective: To analyze, from the perspective of health promotion, older people's reflections on hearing health experiences shared in Cultural Circles. **Method:** Qualitative participant action study based on Paulo Freire's line of research, comprising three stages: topic investigation, coding and decoding, and critical unveiling. Four Cultural Circles were carried out with 13 older people from an Open University for Older People in a municipality in Southern Brazil. The unveiling was based on Freire's methodology, which indicates the analytical process. **Results:** The participants pointed out in oral and written debates and reflections their perceptions of hearing. Altogether, 22 generating topics were investigated, as they revealed perceptions, transformations, fears, difficulties with acceptance, and overcoming difficulties related to topics on hearing. The participants showed interest in having auditory examinations to monitor their hearing skills. **Conclusion:** The Cultural Circles with older people revealed the possibility of obtaining more in-depth knowledge of hearing health and helping improve their quality of life.

Keywords: Auditory Perception; Hearing; Aged; Health Promotion; Qualitative Research; Aging.

* Universidade Federal de Santa Catarina – UFSC, SC, Brazil.

Authors' contributions:

GB, AAB, DP, and DS: were responsible for study conceptualization; methodology; data collection; article outline.

GB, AAB, JS, and IH: were intellectually responsible for and participated in the approval of the final version for publication.

AAB: was responsible for research supervision.

Correspondence email address: Aline Arakawa-Belaunde - arakawa.aline@ufsc.br

Received: 14/05/2021

Accepted: 04/02/2022

Resumo

Objetivo: analisar as reflexões acerca da saúde auditiva vivenciadas por idosos em Círculos de Cultura, na perspectiva da promoção da saúde. **Método:** estudo qualitativo, tipo ação participante, fundamentado no Itinerário de Pesquisa de Paulo Freire que consiste de três etapas: investigação temática, codificação e descodificação, e o desvelamento crítico. Foram realizados quatro Círculos de Cultura com 13 idosos participantes de uma Universidade Aberta da Terceira Idade de um município do sul do país. O desvelamento foi realizado com base na metodologia Freireana, que prevê o processo analítico. **Resultados:** Os participantes, por meio de debates e reflexões, expressaram por escrito e verbalmente suas percepções acerca da audição. Foram investigados 22 temas geradores que revelaram as percepções, as transformações, os medos, as dificuldades de aceitação e superação das dificuldades relacionadas à temática sobre a audição. Os participantes desvelaram interesse em realizar exames auditivos para monitorar suas habilidades auditivas. **Conclusão:** Os Círculos de Cultura realizados com idosos participantes desvelou a possibilidade de ampliar seus conhecimentos a respeito da saúde auditiva e contribuir para melhoria da sua qualidade de vida.

Palavras chave: Percepção Auditiva; Audição; Idoso; Promoção da Saúde; Pesquisa Qualitativa; Envelhecimento.

Resumen

Objetivo: analizar las reflexiones sobre la salud auditiva que viven las personas mayores en los círculos culturales, desde la perspectiva de la promoción de la salud. **Método:** estudio cualitativo, tipo acción participante, basado en el Itinerario de Investigación de Paulo Freire, que consta de tres etapas: investigación temática, codificación y decodificación y develación crítica. Se realizaron cuatro Círculos Culturales de 13 adultos mayores participantes de una Universidad Abierta para Mayores en un municipio del sur del país. La inauguración se realizó con base en la metodología freireana, que prevé el proceso analítico. **Resultados:** Los participantes, a través de debates y reflexiones, expresaron por escrito y verbalmente sus percepciones sobre la audición. Veintidós temas generadores fueron investigados, reveladoras percepciones, transformaciones, miedos, dificultades para aceptar y superar las dificultades relacionadas con el tema de la audiencia. Los participantes mostraron interés en realizar pruebas auditivas para monitorear sus habilidades auditivas. **Conclusión:** Los Círculos Culturales realizados con participantes de edad avanzada revelaron la posibilidad de ampliar sus conocimientos sobre salud auditiva y contribuir a mejorar su calidad de vida.

Palabras-clave: Percepción Auditiva; Audición; Anciano; Promoción de la salud; Investigación cualitativa; Envejecimiento.

Introduction

Brazil currently has a considerable percentage of older people, which will continue to grow in upcoming years because of epidemiological transitions. This indicates changes in morbimortality profiles and poses a challenge to health systems¹. Life expectancy, which was 69.8 years in the last census, may reach 81.2 years by 2050, due to demographic transformations, epidemiological profile changes, socioeconomic characteristics, and biotechnological advancements and discoveries².

Hearing is one of the senses that suffer detectable functional losses with advancing age. Losing

the ability to hear is a disabling condition that limits or hinders older people's full and integrated participation in social roles. This may result in quality-of-life loss and social isolation, as communication is a vital human necessity³. Due to the impact of impairments caused by the aging process, those who are in this stage face challenges to live a healthy, independent, and autonomous life⁴.

Considering the need for a sector focused on the development of health policies for older people, the Ministry of Health takes measures through the National Health Policy for Older People. Its objective is to recover, maintain, and promote the autonomy and independence of older people, ad-

addressing collective and individual health measures in agreement with the principles and guidelines of the Unified Health System (SUS)⁵.

Health promotion is the process of enabling the community to improve its health and quality of life, including their greater participation in controlling this process⁶. Thus, the Ministry of Health defined in regulation the concept of health promotion as a set of strategies and methods aimed at producing health in individual and collective contexts, characterized by coordination and cooperation within and between sectors, forming the healthcare network and aiming to coordinate its actions with the other social security networks, with broad social participation and control⁷.

In this sense, understanding older people's actual perceptions of aging helps plan health prevention and promotion approaches. Hence, health professionals can carry out activities aimed at maintaining older people's autonomy and independence⁸.

Given the above, the objective of this study was to analyze, from the perspective of health promotion, older people's reflections on hearing health shared in Cultural Circles.

Method

This is a qualitative participant-action study. Paulo Freire's line of research was used as a methodological reference, as Cultural Circles were conducted in three interdependent stages: topic investigation, coding and decoding, and critical unveiling⁹. This study is part of a research project approved by the Human Research Ethics Committee of the Federal University of Santa Catarina, under CAAE: 98757118.6.0000.0121.

Population

The study sample comprised 13 older people who participated in the Center for Studies with Older People at the Federal University of Santa Catarina (NETI/UFSC). The Center was founded in March 1982 to conduct studies with older people in the community. It is an Open University for Older People with workshops and activities intended for older people in the community, to recreate, systematize, and socialize knowledge on gerontology¹⁰.

Topic investigation (data collection)

Freire's line of research, which was used to outline the present study, was carried out in four Cultural Circles between April and May 2019. Cultural Circle is a term created by Freire to refer to a dynamic setting for learning and knowledge exchange. The subjects gather in the education process to investigate topics of interest to the group. Real-life situations/problems are brought up, leading them to reflect on their reality and then decode and recognize them⁹.

The coordinators at NETI/UFSC were previously contacted to schedule the meetings, clarify the purpose of the study, and organize the activities for the older people. The Cultural Circles were audio-recorded to register both the relevant topics in the participants' manifestations and the organization and development of the methodological stages in the four approximately 90-minute weekly meetings.

After presenting the study to the participants, they signed an informed consent form and answered a sociodemographic questionnaire developed by the researchers to characterize the group. To ensure anonymity, they were referred to by names of flowers.

The inclusion criteria were as follows: older people aged 60 or more years, of both sexes, who voluntarily agreed to participate in the study. Participants who missed two or more Cultural Circles were excluded.

The initial approach in the first Cultural Circle was a dynamic fun activity to get them acquainted with each other, introducing all participants with the help of a yarn. On this occasion, each one shared what led them to participate in the Cultural Circles, seeking to build rapport between participants and mediators (two speech-language-hearing undergraduate students and two speech-language-hearing therapists).

In the Topic Investigation stage, the generating topics were brought up based on the participants' reality. Some guiding questions were used to help identify topics, such as "What do you understand as hearing?" and "What did you stop doing because of hearing difficulties?". In a debate, each participant shared their reflections and perceptions of hearing health based on five significant topics, namely: physiology of hearing, perception of changes, fear of isolation, difficulties with acceptance, and overcoming difficulties.

The generating topics were coded and decoded in discussions, and then unveiled in subsequent Cultural Circles, providing the participants with an understanding of hearing health promotion. Critical unveiling leads participants through an action-reflection-action process so they can seek to transform reality together. The topics the older people coded, decoded, and unveiled were written in paper clouds, which were taped onto a whiteboard and afterward read in the meetings so they could be discussed by everyone, including the Cultural Circle researchers/moderators.

Hence, the relevant topics reflecting their perceptions of hearing health promotion were defined. A face scale was presented in the last meeting to assess their self-perception of hearing³ (Figure 1). The scale, presented in an enlarged figure to make it more visible, has five stylized faces to assess the capacity to represent self-reported hearing difficulties. Yelling speech bubbles were also prepared, in which they could express fragilities they had experienced. This critical unveiling was meant to arouse the group to seek better hearing health for themselves and those around them, as proposed in Paulo Freire's line of research.



Source: Google

Figure 1. Subjective face scale

Data analysis

The topic unveiling took place along with topic investigation, following Paulo Freire's methodology, which indicates the analytical process⁹. This stage, traditionally called data analysis in Freire's line of research, is a process involving all participants in a Cultural Circle with reflection on and interpretation of significant topics. To make unveiling easier, the topics expressing the main issues to be analyzed were placed on separate boards.

Results

The Cultural Circles were conducted at the Center with the participation of 13 older people (10 females and three males), aged 60 to 78 years. Six of them were married, three were divorced, and four were widowed. Also, 11 had a higher education degree, one had not completed their undergraduate studies, and one had not completed middle school.

Topic Investigation

The topic investigation took place in the first and second Cultural Circles, when the older people's knowledge of hearing was discussed, based on the following question: "What do you understand as hearing?". The topics that they brought up were written in thought bubbles, in which participants expressed their perceptions of the initial questions. Hence, they shared the following ideas: "One of the basic needs for a good quality of life" (Carnation); "Connection with the external world. Preservation of physical health and inclusion" (Orchid); "Connection with life and the world, through which we can identify the sounds of everything where people belong (Lily) (Figure 2). In this stage, participants brought up some topics that were investigated and discussed throughout the Cultural Circles. Altogether, 22 generating topics were brought up. The ones the group was most interested in were joined and organized by similarity, then coded and decoded in five major topics, namely: "Physiology of hearing", "Perception of changes", "Fear of isolation", "Difficulties with acceptance", and "Overcoming difficulties".



Source: Research material.

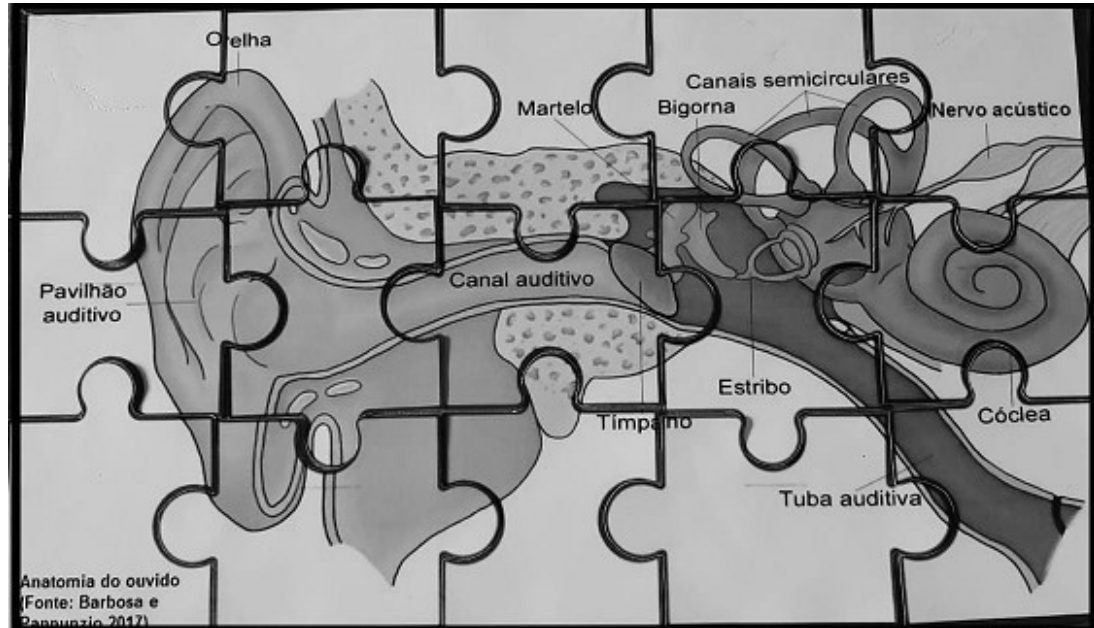
Figure 2. Topic investigation on “What do you understand as hearing?”, presented in thought bubbles

Coding and Decoding

The first topic – “Physiology of hearing” – was discussed, coded, and decoded in the third Cultural Circle, based on the group’s needs. In a dynamic activity, the mediators used a puzzle with an image of the auditory system (Figure 3). Numerous questions and statements arose from this discussion in the Cultural Circle, expressed as follows: “If you’re constantly losing balance, can it be a brain or ear problem?” (Rose); “I’d like to know about earwax, why it is formed? Some people say it is important”;

“Where do calcifications form?” (Violet), “What is it that solidifies ossicles, hindering its transmissions?” (Orchid). This topic led participants to discuss with the mediators to answer their questions regarding how the auditory system works.

Issues on cultural, social, and scientific changes – which led to greater longevity and lower mortality rates in recent years – were also brought up. As participants discussed with mediators, they showed interest in the relationship between aging and auditory processing.



Source: Research material.

Figure 3. Coding and decoding dynamic activity using a puzzle with the auditory system

The second topic approached in this meeting was “Perception of changes”. It motivated discussions on the participants’ feelings toward changes and the impacts of hearing loss in everyday life; discomforts and changes due to aging were also discussed in the circles. Participants said: “What bothers me the most nowadays is that when I compare to myself in the past, I used to distinguish more easily in noisy environments” (Carnation); “I’m losing some of my hearing because sometimes I go out and my daughter doesn’t speak loudly, she always speaks low, but now I can’t hear anymore, when I’m at home I ask her to speak more loudly because I can’t grasp what she’s saying” (Rose).

Participants said changes take place, many of which are not understood by society or perceived by the family. Hence, aging is for many older people a phase with changes that may require constant self-evaluation, as shown in these words: “Since I started getting deaf, it embarrassed me a little in the beginning. Because you hear from people close to you ‘Are you deaf?’; so I realized that’s the way it is and I think we can’t take it too seriously; take care of your health, for sure; but take it more lightly” (Sunflower).

The third and fourth topics investigated in this meeting were “Fear of isolation” and “Difficulties with acceptance”. Participants pointed out the decline in hearing acuity as a disabling condition, which limits or hinders older people’s social participation as they would desire it, causing them to withdraw from social activities. This was made clear in words such as: “I stopped going out to noisy places, like bars, where there’s loud music and tinnitus gets worse, and some shows I used to like going to, with a lot of people, because there’s too much noise” (Sunflower); “It’s hard to admit we’re getting deaf. What I’m most afraid of is spinning, when I get dizzy like this” (Sunflower); “What I’m afraid now is that it gets worse – because it’ll get worse; I’m afraid it’ll be sudden” (Sunflower); “I was so devastated this weekend, because one daughter said I was deaf, and the other said: ‘Mom, instead of buying a new car, you should just sell this one and take an Uber because you’re not driving well’ (Orchid). The Cultural Circles debates revealed that society and particularly the family limit older people from choosing and deciding for an activity. They also highlighted their loss of autonomy; their decision power is limited

because they are considered unable to take care of and answer for themselves.

The last topic to be decoded – “Overcoming difficulties” – led Cultural Circle participants to share their feelings, which are present in the life of many older people. They were glad to share their experiences, including their difficulties and the importance of participating in groups that help them learn and reflect about their lives and share experiences, as shown in the following words: “The solution I found not to get nervous or stressed is that I simply disconnect. If it’s anything important, the person will come and say it again” (Daisy); “We have to be fine with ourselves, otherwise self-esteem gets very low” (Sunflower).

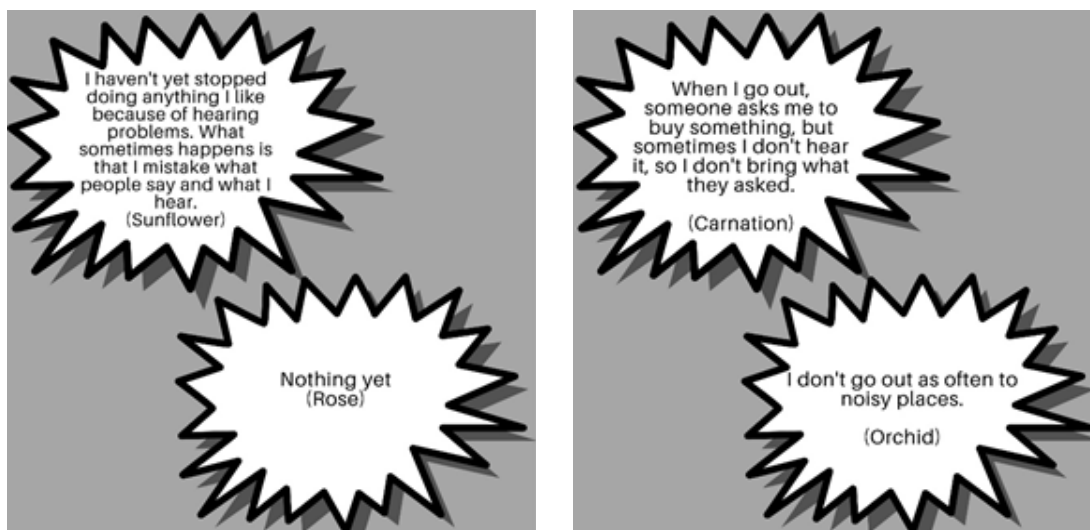
Critical unveiling

The subjective face scale was presented in the fourth and last Cultural Circle to assess their self-perception of hearing. The mediators briefly explained the faces and their differences, making sure the older people had understood and perceived the visual differences between them. Then, they were asked to choose the image that represented

their satisfaction with hearing at that moment. Most participants were satisfied with their hearing, checking the moderate face, the third drawing in the scale.

Even though it is a subjective assessment highly influenced by personal expectations and life experiences, the scale proved to be coherent with the participants’ hearing condition, comparing the words they said throughout the meetings. They were also encouraged to share, in the yelling speech bubbles, everyday fragilities due to hearing difficulties. Their words showed how each one had different views of life and how to cope with difficulties; for instance: “I stopped going out to noisy places” (Sunflower); “Sometimes I give up watching a movie because I can’t make it out” (Orchid); “Nothing yet” (Rose) (Figure 4).

The older people’s debates and reflections revealed their interest in making auditory examinations to monitor hearing and learn more about one of their senses. The relevance of hearing health promotion to provide them greater social inclusion and better quality of life was also discussed.



Source: Research material.

Figure 4. Yelling speech bubbles presenting what the older people stopped doing due to hearing difficulties

Discussion

Age-related hearing loss is one of the most frequent and disabling physiological changes in the human aging process. It diminishes older people's social life and may affect their health status, leading to social isolation¹¹.

Studies point to significant impacts of age-related hearing loss on older people's quality of life and well-being, relating them to depression and isolation. From a psychological standpoint, hearing loss may cause not only depression but also negative feelings such as frustration, embarrassment, or guilt for not being able to communicate effectively. Furthermore, having low self-esteem, feeling excluded, and being socially isolated are related to older people's difficulties hearing other people in conversation¹².

Afterward, participants brought up how aging is a stigma that permeates society and family, evidently leading them to social isolation and emptying their perspectives for the future. It was made clear that the impact of such stigma influences various aspects of everyday life and motivates their interpretation of self in relation to the world. The stigma was verified as a significant trace in their experience with the aging process¹³.

As they were being listened to, participants reported their perceptions of the physiological and psychological changes taking place in this stage of life. They also reported a relevant aspect of their experience – that promoting active aging helps improve their quality of life and social interaction. Based on this understanding, studies in speech-language-hearing therapy started to address aging beyond organic aspects, emphasizing social participation, autonomy, and active aging¹⁴. Promoting active and healthy aging prevents functional capacity loss. Hence, the older population strives to maintain physical, mental, and psychic independence, promoting their physical, mental, and social well-being and ensuring their healthcare¹⁵.

The participants' interest in auditory system degeneration and the extent to which auditory changes may impact their social life must be highlighted. As they discussed, participants showed interest in more in-depth knowledge of the aging process associated with pathologies and functional losses. A study verified older people's perception of the communication process in advanced age, and its authors pointed out the subjects' interest in

talking about the changes that led to communication issues¹⁶.

In this group, the word “change”, often misunderstood, triggered countless reflection moments on the role of society and relatives. Some older people, due to a lack of life perspective, renounce their projects for the future and any improvement in their quality of life, affecting both their physical and mental health. A study¹⁷ verified that older people have a negative perception of the loss of occupational roles and reliable functional capacity due to aging, triggering various degrees of anxiety. On the other hand, a positive self-perception may help lessen their difficulties, as they face them as a privilege they obtained (the new phase in life) for being active, healthy, and autonomous.

Longevity has brought about improvements in older people's living and health conditions and helped them achieve autonomy and freedom. Nevertheless, they must have others with whom they can share their everyday life – children, grandchildren, people without affective bonds, or even experience-sharing relationships. These factors are predictive of active aging¹⁸.

This is exemplified in studies that considered cognitive and emotional aspects to describe older people's happy experiences, which they concluded to be family well-being, a pleasant occupation, spirituality, social relations, good overall health status, and healthy habits¹⁹. Data like these lead to the belief that aging is an experience that holds a new place in present-day society, especially thanks to the inclusion of older people in sport, art, education, and work activities, active involvement with family functioning, and knowledge of the healthy aging process.

Their statements revealed that aging can be a positive experience. In this perspective, reflections point out what is necessary to live advanced age with a positive attitude, considering vulnerabilities and losses inherent to this process. Hence, it is important to remember that older people can react differently to the aging process, depending on their personal and social history and, most of all, the affective support they have built up throughout their life. It takes a collective effort to allow everyone to age with health and dignity²⁰.

As participants unveiled their thoughts on hearing health, statements pointed out that aging can be lived with a positive attitude. Older people's self-perception of hearing may depend on various issues

involving their life experience, culture, educational attainment, cognition, and the context to which they belong. These can influence their capacity to adapt to and accept disabilities and the aging process¹⁰.

The relationship between participants provides moments of learning as they draw near each other and exchange experiences – which may have positive effects on family and social life. Thus, this study played an influencing role in the life of those who received knowledge through discussions and experiences, giving them a sense of belonging to the group and bringing new meaning to the aging process²¹.

Given the above, aging means not only the number of days one has lived but also maintaining dignity as one grows older with plenty of joyful experiences. This agrees with points the older people highlighted in the discussions, who demonstrated in their words the importance of seeking means to promote hearing health and maintain their quality of life, thus coping with a negative aspect of aging.

Conclusion

Throughout the Cultural Circle discussions, the older people showed interest in and got involved with the topic at hand, reflecting on the role of hearing, everyday difficulties caused by hearing loss, and impacts on social relationships due to hearing deprivation. Moreover, they obtained more in-depth knowledge of hearing health and the aging process.

As they identified themselves as a group, they felt comfortable in the meetings to talk about their insecurity about the natural aging process and gradual hearing loss. They also brought up the importance of coping with this stage and developing potentialities to ensure their autonomy and promote health.

It is also important to point out that few studies have addressed hearing health promotion from older peoples' perspectives. Further studies should be carried out to bring about and promote older people's health.

References

1. Canêdo AC, Lopes CS, Lourenço RA. Prevalence of and factors associated with successful aging in Brazilian older adults: frailty in Brazilian older people Study (FIBRA RJ). *Geriatr Gerontol Int*. 2018; 18(8): 1280-5.

2. Nunes BP, Batista SRR, Andrade FB, Souza Junior PRB, Lima-Costa MF, Facchini LA. Multimorbidity: the Brazilian longitudinal study of aging (ELSI-Brazil). *Rev Saude Publica*. 2018; 25:52Suppl 2(Suppl 2):10s. Acesso em 2020 nov 13. Disponível em: 10.11606/S1518-8787.2018052000637.

3. Costa-Guarisco LP, Dalpabel D, Labanca L, Chagas NHS. Percepção da perda auditiva: utilização da escala subjetiva de faces para triagem auditiva em idosos. *Ciênc. saúde coletiva*. 2017; 22 (11) 3579-88

4. Lange C, Heidemann ITSB, Castro DSP, Pinto AH, Peters CW, Durand MK. Promoting the autonomy of rural oldes adults in active aging. *Revista Brasileira de Enfermagem*. 2018; 71(5): 2411-7.

5. Brasil. Portaria n. 2598 de 19 de outubro de 2006. Ministério da Saúde. Aprova a Política Nacional de Saúde da Pessoa Idosa. Ministério da Saúde. 2004. Acesso em 2020 nov 13. Disponível em: http://bvsmms.saude.gov.br/bvs/saudelegis/gm/2006/prt2528_19_10_2006.html#:~:text=A%20Pol%C3%ADtica%20Nacional%20do%20Idoso,94%20e%20Decreto%20n%C2%BA%201.948%2F.

6. WHO. Carta de Ottawa. Conferência Internacional Sobre Promoção da Saúde. 1986. [cited 2017 mai 10]. Available from: http://bvsmms.saude.gov.br/bvs/publicacoes/carta_ottawa.pdf.

7. Brasil: Portaria n. 2446, [Internet]. Ministério da Saúde. Redefine a Política Nacional de Promoção da Saúde- 2014: (DNS). [cited 2020 nov 11].

8. Freitas MC, Queiroz TA, Sousa JAV. O significado da velhice e da experiência de envelhecer para os idosos. *Revista da Escola de Enfermagem da Usp*. 2010; 44 (2): 407-12.

9. Heidemann ITSB, Dalmolin IS, Rumor PCF, Cypriano CC, Costa MFBNA, Durand MK. Reflexões Sobre O Itinerário De Pesquisa De Paulo Freire: Contribuições Para A Saúde. *Texto & Contexto - Enfermagem*. 2017; 24 (4): 1-8.

10. NETI. Núcleo de estudos da terceira idade. 2020. Disponível em: <https://neti.ufsc.br/>. (UFSC: Universidade Federal de Santa Catarina. NETI: Núcleo de Estudos da Terceira Idade. [Internet]. Florianópolis: UFSC; 2017 [cited em 2017 Maio 2]. Available from: <http://neti.ufsc.br/>)

11. Camargo C et al. Percepção de idosos sobre a restrição da participação relacionada à perda auditiva. *Distúrbios da Comunicação*. 2018; 30 (4): 736-47.

12. Braga M, Ribas A, Moretti C, Massi G, Martins J, Rosa MR et al. Sintomas depressivos em idosos que vivem apenas ou acompanhados: o impacto da proteção auditiva. *MOJ Gerontol Ger*. 2017; 2 (1): 1-4. DOI: 10.15406 / mojgg.2017.02.00037.

13. Martins JA, Merighi MAB, Jesus MCP, Watanabe HAW. Aging with physical disabilities: experience intersected by stigma, social isolation and finitude. *Escola Anna Nery*. 2018; 22 (4): 1-7.

14. Golinelli RT, Massi G, Krüger S, Santos IB, Paisca AB Berberian, AP et al. Autopercepção de idosos a respeito de suas condições auditivas, de sua escuta e de suas estratégias de comunicação. *Distúrbios da Comunicação*. 2019; 31 (2): 317-27.

15. Souza EM, Silva DPP, Barros AS. Educação popular, promoção da saúde e envelhecimento ativo: uma revisão bibliográfica integrativa. *Ciênc. saúde coletiva*. 2021; 26(4): 1355-68.



16. Santos PA, Heidemann ITSB, Marçal CCB, Arakawa-Belaunde AM. A percepção do idoso sobre a comunicação no processo de envelhecimento. *Audiology- Communication Research*. 2019; 24 (01): 1-8.
17. Oliveira NS, Souza TS, Alencar FS, Oliveira GL, Ferreira NB, Alencar JS. Percepção dos idosos sobre o processo de envelhecimento. *Id On Line Revista de Psicologia*. 2014; 8 (22): 49-83.
18. Guedes MBOG, Lima KC, Caldas CP, Veras RP. Apoio social e o cuidado integral à saúde do idoso. *Physis*. 2017; 27(4); 1185-1204.
19. Lima MG, Barros MBA, Alves MCGP. Happiness in the elderly: an epidemiological approach in the ISA-Camp 2008 study. *Cad Saúde Pública*. 2012; 28(12): 2280-92.
20. Tavares RE, Jesus MCP, Machado DR, Braga VAS, Tocantins FR, Merighi MAB. Healthy aging from the perspective of the elderly: an integrative review. *Rev. bras. geriatr. gerontol*. 2017; 20(6): 878-89.
21. Arakawa-Belaunde AM, Góes BP, Krug BV, Cardoso L, Amorim MS. Estimulação da memória e comunicação de idosos: relato de experiência com base na promoção da saúde. *Revista Kairós Gerontologia*. 2019; 22(2): 607-20.