

J Nurs UFPE on line. 2021; 15: e245188 DOI: 10.5205 / 1981-8963.2021.245188 https://periodicos.ufpe.br/revistas/ revistaenfermagem

ACTIVE AGING AND HEALTH PROMOTION
O ENVELHECIMENTO ATIVO E A PROMOÇÃO DA SAÚDE
ENVEJECIMIENTO ACTIVO Y PROMOCIÓN DE LA SALUD

Andrelise Viana Rosa Tomasi¹, Silvia Maria Azevedo dos Santos², Rafaela Vivian Valcarenghi³

ABSTRACT

Objective: to identify the scientific production on active aging. Method: this is a bibliographic, descriptive, integrative review study, without temporal delimitation, performed through searches in the LILACS, MEDLINE, CINAHL, Scopus, and SciELO Virtual Library databases. Only original articles published in indexed journals and written in Portuguese, Spanish, and English were analyzed. Descriptive procedures were adopted for the analysis of the final sample of studies. Results: the final sample consisted of 66 articles. The main results were organized into the following three categories: Perception of older adults and professionals about active aging, Health promotion for active aging, and Determinants and instruments for active aging assessment. Conclusion: it was possible to identify and analyze various interventions and outcomes on active aging through the analysis of the studies. The fragility of care actions concerning the prevention of diseases and injuries in the elderly population was observed.

Descriptors: Aging; Aged; Quality of Life; Health Promotion; Public Health; Review.

RESUMO

Objetivo: identificar a produção científica sobre o envelhecimento ativo. Método: trata-se de um estudo bibliográfico, descritivo, tipo revisão integrativa, sem delimitação temporal, a partir da busca nas bases de dados LILACS, MEDLINE, CINAHL, Scopus e Biblioteca Virtual SciELO. Analisou-se somente trabalhos publicados em periódicos indexados como artigos de pesquisas originais em língua portuguesa, espanhola e inglesa. Observa-se que os procedimentos adotados para a análise da amostra final dos estudos foram descritivos. Resultados: destaca-se que a amostra final foi composta por 66 artigos. Organizaram-se os principais resultados em três categorias: Percepção dos idosos e profissionais sobre o envelhecimento ativo; A promoção da saúde para o envelhecimento ativo e Os fatores determinantes do envelhecimento ativo e os instrumentos de medida. Conclusão: possibilitou-se identificar e analisar uma diversidade de intervenções e desfechos sobre o envelhecimento ativo, notando-se, por meio destes estudos, a fragilidade no cuidado em relação à prevenção de doenças e agravos da população idosa.

Descritores: Envelhecimento; Idoso; Qualidade de Vida; Promoção da Saúde; Saúde Pública; Revisão.

RESUMEN

Objetivo: identificar la producción científica sobre envejecimiento activo. *Método*: se trata de un estudio bibliográfico, descriptivo, tipo revisión integradora, sin demilitación temporal, a partir de la búsqueda em las bases de datos LILACS, MEDLINE, CINAHL, Scopus y Biclioteca Virtual SciELO. Solo los trabajos publicados em revistas indexadas fueron analizados como artículos de investigación orinales en portugués, español e inglés. Se observa que los procedimientos adoptados para el análisis de la muestra final de los estudios fueron descroptivos. *Resultados*: se destaca que la muestra final estuvo conformada por 66 artículos. Los principales resultados se organizaron en tres categorias: Percepción de personas mayores y profesionales sobre el envejecimiento activo; Promoción de la salud para el envejecimiento activo y Los determinantes del envejecimiento activo e instrumentos de medición. *Conclusión*: fue posible identificar y analizar una variedad de intervenciones y resultados sobre el envejecimiento activo, notando, através de estos estudios, la debilidad em la atención en relación a la prevención de enfermedades y lesiones de la población anciana.

Descriptores: Envejecimiento; Anciano; Calidad de Vida; Promoción de la Salud; Salud Pública; Revisión.

^{1,2}Federal University of Santa Catarina/UFSC. Florianópolis (SC), Brazil. ¹ https://orcid.org/0000-0003-3122-3365 ² https://orcid.org/0000-0001-9209-2894

³Santa Catarina College/FASC. São José (SC), Brazil.³ https://orcid.org/0000-0002-7083-3329

How to cite this article

Tomasi AVR, Santos SMA, Valcarenghi RV. Active aging and health promotion. J Nurs UFPE on line. 2021; 15: e245188 DOI: https://doi.org/10.5205/1981-8963.2021.e245188

INTRODUCTION

Population aging is defined as a phenomenon characterized by changes in the age structure caused by a reduction in mortality rates and an increase in the population's life expectancy.¹

Faced with this event, the challenge of achieving an increased survival with an adequate quality of life arises, so that aging can be lived with fullness. There is a need for multidimensional instruments that consider the particularities of the elderly. It is essential to consider factors related to age, health, dependence, loss of autonomy, and quality of life.²

Thus, some policies for the care of the elderly were established, such as the Active Aging Policy proposed by the United Nations (UN) and launched in Madrid, Spain, in 2002, whose main objective was to increase the life expectancy with health and quality of life. It should be noted that one of the pillars of this policy is health, whose actions aim to maintain the environmental and behavioral risk factors for chronic diseases, functional decline, and increased protection factors.³

Active aging is understood as the process of "optimizing opportunities for health, participation, and safety, to improve the quality of life as people age". Active aging is related to physical, social, and mental well-being throughout life, as well as participation in society according to the needs, desires, and capacities of the individual.

A policy of actions for aging is determined by the active aging policy, involving aspects that thoroughly assess the entire context of people's lives, such as the physical and social environments, health services, and behavioral, personal, social, and economic determinants.⁴

Today, this population is considered active, pointing out the need to promote actions aimed at the elderly in a comprehensive approach, valuing their insertion in society, self-care, autonomy, and functional independence.

OBJECTIVE

To identify scientific production on active aging.

METHOD

This is a bibliographic, descriptive, integrative review study, carried out in six stages: preparing the review protocol; establishing the guiding question and the strategies for article search and selection; critical analysis of the studies; data collection; interpretation of data; and data synthesis. ⁵⁻⁶ The study began with establishing the following research question: "What are the scientific productions on active aging in national and international databases?".

The search consisted of articles indexed in the following databases: Latin American and Caribbean Health Sciences Literature (LILACS); Scientific Electronic Library Online (SciELO); National Library of Medicine (PubMed); Cumulative Index to Nursing and Allied Health Literature

(CINAHL), and Science Direct Scopus (Scopus). The search and selection of articles were carried out in July and August 2018. We chose to analyze only original articles, published in indexed journals, written in Portuguese, Spanish, and English, and without temporal delimitation. The keywords "envelhecimento ativo", "envejecimiento activo", "active aging", "active ageing", and "active age" were used. Review articles, theoretical reflections, theses, and articles focusing on established diseases were excluded.

After removing the duplicates and applying the inclusion criteria, 256 articles were obtained. After the abstract reading, 155 articles not related to the topic were excluded and, after full-text reading, 35 articles were excluded as they did not cover active aging. The resulting sample of 66 articles made up the corpus of the study.

After this selection process, all articles were submitted to exhaustive readings for the identification and registration of the elements of interest, based on a specific form that included the following variables: title, authors, journal, year of publication, study objective, design, data collection measures, subjects, results, and final considerations. The results of the analysis were presented descriptively, and the findings were studied qualitatively.

The Preferred Reporting Items for Systematic Reviews and Meta-Analyzes (PRISMA) flow diagram was used to present the results as shown in figure 1.7

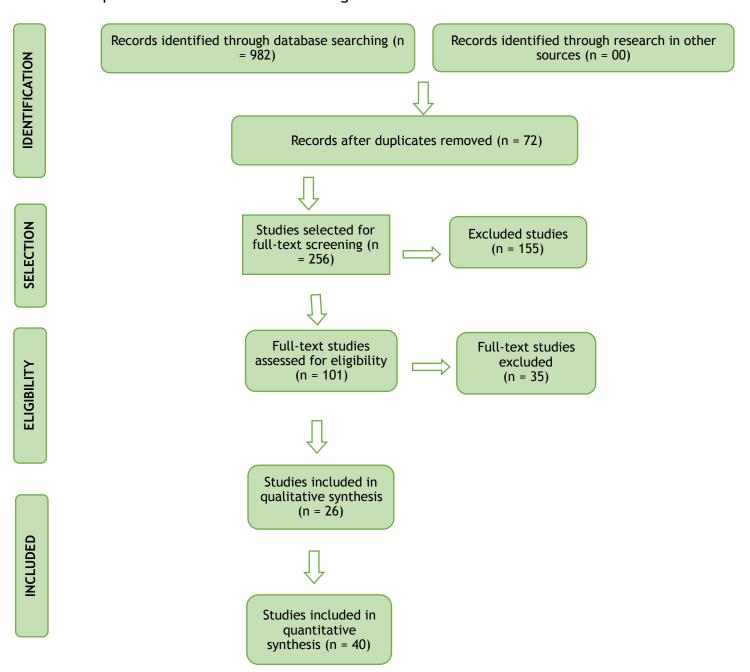


Figure 1. Preferred Reporting Items for Systematic Reviews and Meta-Analyzes (PRISMA, 2015) flow diagram of studies. Florianópolis (SC), Brazil, 2018.

RESULTS

The corpus of analysis consisted in 66 articles. Regarding the years of publication, four studies were published in 2018, six in 2017, ten in 2016 and 2014, and fifteen in 2015. It should be noted that three to five articles were published in the following years: 2010, 2011, 2012, and 2013. In 2007 and 2009 two publications were found in each year. Only one article was published in 2006 and another in 2008. Studies before 2006 were not identified since the active aging policy was created in 2005.

Concerning the methodological approaches, 40 studies used a quantitative approach and 26 a qualitative approach. Thirty-nine articles were identified in English, 24 in Portuguese, and three in Spanish. In addition, 26 studies were carried out in Europe, 26 in South America, seven in North America, five in Asia, and two in Oceania.

With the aim to promote the contribution of the review on the production of knowledge about active aging, three categories were established: Perception of older adults and professionals about active aging, Health promotion for active aging, and Determinants and instruments for active aging assessment.

Twenty-six articles were included in the category "Perception of older adults and professionals about active aging". It became evident that positive contents permeate the active aging.8 However, when the word "active" is not associated with aging, this stage of life is still represented by losses and disabilities,9 such as the absence of activity physics. The most common perceptions of active aging found in the studies are the maintenance of physical health and body functioning, leisure activities, social contacts, mental health, the act of working, functional capacity, independence, mobility, environmental support, and the ability to carry out basic and instrumental activities of daily living independently. Care related with healthy eating, non-alcohol intake, and tobacco abuse were mentioned in the articles, as well as self-medication. In other words, the studies addressed healthy aging as adopting active behaviors and achieving balance in material and financial issues.

It was noticed in another study, whose objective was to understand and interpret the experiences and meanings concerning active aging, that the impaired physical condition, the changes in the social role, the feeling of economic and physical loss, and the lack of recognition in

society and family are conditions of non-active aging, and the elderly reported that mental health keeps them alive and active.¹⁷

In another study with 52 older adults, the participants perceived active aging as having health, physical fitness, social roles and activities, and independence associated with the hypothesis that aging is more active when there are optimal levels of quality of life.¹⁸

In other studies, elderly participants highlighted that accidents, such as falls, influence their capacity for social interaction preventing them, for example, from activities such as going to church and interacting socially, impacting their independence.^{19,20}

It has been demonstrated, in other studies, that for the well-being of the elderly population to occur, it is necessary to engage in new learning, either through involvement with their networks or in the development of individual activities that help to fill everyday life, helping to project a more optimistic view of aging.²¹⁻²

Some articles in this category still show the perception of elderly subjects about public spaces, emphasizing the need to create friendly environments so that these individuals can spend more time away from home.²³⁻⁵ Activities such as going shopping and using local services, and aspects like having a quality physical infrastructure for pedestrians, having accessible public transport, and individuals' attitudes and behaviors that older people encounter²⁶ also influence activities among the elderly. When these aspects are respected, the elderly are allowed to experience social interactions and to participate in community environments.²⁷⁻³¹

In another article, specialists highlighted the role of public plazas as favorable places for carrying out various activities for elderly people. According to them, activities conducted in such places have a great potential for the promotion of well-being and health, in addition to serving as spaces for coexistence.³²

As another important aspect reported is the perception of professionals concerning the health of older adults considering the need for a multidisciplinary team, so that comprehensive care, the prevention of diseases and injuries, and the promotion of health in this population occur leading to healthy aging.³³

Fourteen articles were identified in the category "Health promotion for active aging". Five studies showed the importance of programs to promote active aging, with physical activity, nutrition, cognitive functioning, and health care being stimulated in addition to programs to avoid dependence, contributing to the development of emotional, physical and cognitive skills, emphasizing social participation to relieve the feeling of loneliness, and improving the quality of life.³⁴⁻⁸

New learning programs were also mentioned such as the implementation of an educational technology for the construction of skills and emotional state improvement contributing to autonomy, and programs aimed at reducing depressive symptoms through autobiographical memory and storytelling, increasing emotional well-being.³⁹⁻⁴²

Other articles in this category highlighted health education through lectures to encourage the elderly to identify healthy daily habits, generating a positive impact and raising awareness about how to improve brain function and promote positive lifestyle changes. Besides, it appears that these programs also contribute to the primary prevention of weaknesses, as they remove the elderly from isolation, providing health and well-being.⁴³⁻⁴

Another study highlighted the creation and implementation of a board game aimed at promoting healthy active aging, revealing that the playful element (the game) acted as an exercise of self-determination and independence for the elderly improving the memory, self-esteem, socialization processes, exchange of experiences, and shared learning.⁴⁵ Physical exercise and mental health are listed as two examples that contribute to healthy active aging, deserving more attention from individuals, health professionals, and public policies.⁴⁶

A study is added to this category that addresses the lack of health promotion actions in Primary Healthcare Units, considering that health professionals should take active positions and support initiatives to promote active aging, creating strategies aimed at improving the aging process.⁴⁷ It is proven that health education is one of the health promotion strategies. However, this practice should be spread more widely since primary care always work in a multidisciplinary way to achieve all the determining factors of active aging.

Given the above, another category was determined, namely "Determinants and instruments for active aging assessment", which addresses how the determinants of active aging are being evaluated, as proposed in the policy. It is noteworthy, among the selected articles, that 26 analyzed the determinants of the active aging as well as the instruments for its measurement.

Concerning the determinants, there is a great need to use a single measurement instrument with theoretical characteristics that represent the dimensions proposed by the Active Aging Policy. The most cited determinants in the studies were health and social determinants, ⁴⁸⁻⁵⁶ behavioral determinants, ^{52,56-9} economic determinants, ^{49,60-2} environmental determinants, ^{52,56} family, ⁶³ and cultural determinants. ⁵³

In one study, the correlates of active aging in three European countries were approached. Associations with education, marital status, and occupation suggest important factors for active aging.⁶⁴ In Spain, relationships were examined between the participants' memory, the perception of

social resources, depression, and quality of life, showing that stimulating social environments is the key to improving memory and quality of life.⁶⁵

Culturally, the family is pointed out as a support system and facilitator for the social interaction of the elderly. Social life contributes to the exercise of citizenship, the valorization and insertion of the elderly in the social environment as safe and appropriate environments for the elderly.^{3,66}

Studies carried out in Brazil have shown that factors such as advanced age over 80 years, visual impairment, low cognitive status, slow gait, and not having family life are associated with a greater chance of non-active aging and social disengagement.⁶⁷⁻⁸

Difficulties in evaluating active aging were also presented with several countries researching the subject, but so far, despite the use of instruments already validated with other variables centered on quality of life, not all determinants of active aging proposed by the World Health Organization (WHO) have been postulated.

It is observed that a Canadian study tried to use active aging models concluding, in the end, that they do not provide empirical support for the acceptance of WHO models in Canadian older adults.

69 It was pointed out, in another study carried out in Spain with 404 community elderly, that the proposed model included variables related to physical, psychological and social health, but did not fit all determinants of active aging. 70

However, a study carried out in Thailand using a composite scale was developed and proven to be culturally relevant, reliable, and valid to assess active aging in Thai older adults. It was concluded that this measurement instrument has an acceptable global validity and reliability to measure the multidimensional attributes of the active aging in the Thai context.⁷¹

In Brazil, the use of instruments assessing quality of life and active aging variables was found. This instrument was elaborated through a checklist based on the determinants of active aging and has been validated in two municipalities; however, it is not disseminated in all Brazilian regions. 4,72 These studies were carried out through the Study Group on Health Care for the Elderly, linked to a federal university in southern Brazil. Another study, also Brazilian, presented a specific method of analysis to measure active aging and tested the association with quality of life and possible determinants according to gender. However, the method was used in only one State. 73 Despite the Brazilian initiatives to propose instruments to measure active aging (as the ones found in this literature review), a national survey with psychometric tests has not yet been carried out to examine the validity and reliability of these instruments.

DISCUSSION

In the category "Perception of older adults and professionals about active aging", it is pointed out that the results found are in accordance with the WHO proposal, which classifies impaired physical condition and changes in the social role, among others, as essential factors for active aging, relating the individual to his context, characterizing, therefore, the behavioral, personal, social, economic and environmental factors.³

It is known that the WHO has encouraged the adoption of healthy lifestyles and the effective participation of individuals in their health in all stages of life. Such behaviors are understood as determinants for active aging, considering that it is never too late to adopt healthy lifestyles.³

It is argued that the findings of this integrative review are in line with what is advocated by the Pan American Health Organization (PAHO).³ It appears that health should be viewed in a broad perspective, the result of intersectoral and transdisciplinary work promoting healthy lifestyles at all ages, encouraging the practice of physical activities in daily life and leisure, access to healthy food and changes in lifestyle, such as reducing the consumption of tobacco and alcohol. It is noted that these issues are the basis for healthy aging, which means, above all, a substantial gain in quality of life and health.

Quality of life is defined, according to WHO,⁷⁴ as "an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns". Thus, it is expected that people age with quality of life and become reflective, autonomous, and socially active, expanding the possibilities of healthy living.⁷⁵

Another important aspect refers to learning which promotes intellectual, physical, emotional, and social benefits, establishing that individuals' well-being and communities' health are interdependent. It is important to allow the elderly to develop new skills, especially in areas such as the use of digital technologies.^{3,76}

It is also considered necessary to contemplate the individual characteristics of the elderly to plan environments considering the aspects that determine performance expectations and their interaction with the environment. It is known that the elderly people want to live in safe environments in which they can exercise their autonomy, and, for this, they need cozy environments that provide them with greater safety, preventing unexpected events and reducing the risk of accidents.⁷⁷

In the second thematic category, health promotion for active aging is discussed, which refers to training individuals and the community to improve their quality of life and health. Therefore, building spaces and actions aimed at promoting health are emphasized to encourage active aging. It was also reinforced, in one of the studies, the importance of health promotion in an integral way, with a multi and interprofessional approach.⁷⁸

It is noticed that programs and strategies have been gradually practiced to improve health promotion and to rescue the social identities of the elderly, seeking the best resolution of the population's health problems. It is pointed out that these programs must contain chronic non-communicable diseases, which are the leading causes of deaths in the world that lead to loss of quality of life, with a high degree of limitation in work and leisure activities, in addition to causing an impact for families, communities and society. Interventions focusing on health promotion, risk reduction, health care improvement, early detection of diseases, and timely treatment for the entire population are emphasized.⁷⁹⁻⁸¹

In the category "Determinants and instruments for active aging assessment", it is noticed that active aging depends on several determining factors involving individuals, families, and countries. Culture comprises all individuals and populations and shapes the way of aging, as it influences all determinants of active aging, while gender considers the suitability of various political options and their effect on the well-being of men and women.³ Health determinants aim to promote and prevent diseases and may involve physical activities, healthy eating, and abstinence from smoking and alcohol use, increasing longevity and quality of life, being these classified as behavioral determining factors.³

The economic determining factor is composed of family income, social protection, and work, and the elderly who have financial comfort can contribute to active aging, an aspect that favors their general well-being.^{3,62}

The determinants of active aging must be understood as goals to be achieved throughout all individuals' lives to ensure that aging is permeated by independence and autonomy.⁷² Researchers and health teams must be prepared to identify problems that compromise and weaken the elderly early. In this sense, it is necessary to develop actions for healthy aging and quality of life, rethinking and redesigning the healthcare actions for the elderly, using instruments that can make a multidimensional assessment of the determinants of active aging and aspects related to the health of the elderly.⁸²

CONCLUSION

Through this study, the scientific production on active aging was analyzed. It is pointed out that the development of scientific studies generates useful information for the implementation of measures aimed at measuring all the determinants of active aging and the well-being and quality of life of the elderly population.

It is concluded that the articles analyzed reflect health promotion related issues and that multidisciplinary action is necessary because, through studies, it is perceived that there is still weakness in health care for the prevention of diseases and injuries in this population.

Finally, this integrative review's objective was achieved since it was possible to summarize a diversity of interventions and outcomes related to active aging. The findings summarized from the analysis of the studies allow researchers and health professionals to obtain relevant information about active aging in different contexts. The importance of developing an instrument to measure active aging that is culturally sensitive to the Brazilian elderly people was also identified. This instrument must cover the aspects that need to be worked on by the elderly population and the professionals.

REFERENCES

- 1. Ministério da Saúde (BR), Organização Pan-Americana da Saúde. Atenção à saúde do idoso: aspectos conceituais [Internet]. Brasília: Ministério da Saúde; 2012 [cited 2018 July 20]. Available from: https://apsredes.org/pdf/Saude-do-Idoso-WEB1.pdf
- 2. Rodrigues RMC, Silva CFR, Loureiro LMJ, Silva SMDT, Crespo SSS, Azeredo ZAS. The oldest old: multidimensional functional assessment. Referência. 2015 Apr/June; 4(5):65-74. DOI: 10.12707/RIV14040
- 3. World Health Organization. Envelhecimento ativo: uma política de saúde [Internet]. Geneva: WHO; 2005 [cited 2018 July 20]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/envelhecimento_ativo.pdf
- 4. Vicente FR, Santos SMA. Multidimensional evaluation of determinants of active Aging in older adults in a municipality in santa catarina. Texto contexto-enferm. 2013 Apr/June; 22(2):370-8. DOI: 10.1590/S0104-07072013000200013
- 5. Ercole FF, Melo LS, Alcorofado CLGC. Integative review versus systematic review. REME Rev Min Enferm. 2014 Jan/Mar; 18(1):9-11. DOI: 10.5935/1415-2762.20140001_
- 6.Soares CB, Hoga LAK, Peduzzi M, Sangaleti C, Yonekura T, Silva DRAD. Integrative review: concepts and methods used in nursing. Rev Esc Enferm USP. 2014 Apr; 48(2):335-45. DOI: 10.1590/S0080-6234201400002000020

Galvão TF, Pansani TSA, Harrad D. Principais itens para relatar revisões sistemáticas e metanálises: a recomendação PRISMA. Epidemiol Serv Saúde. 2015 June; 24(2):335-42. DOI: 10.5123/S1679-49742015000200017

8. Daniel F, Caetano E, Monteiro R, Amaral I. Representações sociais do envelhecimento ativo num olhar genderizado. Análise Psicológica [Internet]. 2016; 4(34):353-64. DOI: 10.14417/ap.1020

- 9. Ferreira OGL, Maciel SC, Silva AO, Santos WS, Moreira MASP. Active aging from the perspective of aged individuals who are functionally independent. Rev Esc Enferm USP. 2010 Dec; 44(4):1060-4. DOI: 10.1590/S0080-62342010000400030
- 10. Bowling A. Enhancing later life: How older people perceive active ageing? Aging Ment Health. 2008 May; 12(3):293-301. DOI: 10.1080/13607860802120979
- 11. Stenner MC, McFarquhar T, Bowling A. Older people and 'active ageing': subjective aspects of ageing actively. J Health Psychol. 2011 Apr; 16(3):467-77. DOI: 10.1177/135910531038429
- 12. Marinho VT, Costa ICP, Andrade CG, Santos KFO, Fernandes MGM, Brito FM. Elderly's perception on active aging. J Nurs UFPE on line. 2016 May;10(5):1571-78. DOI: 10.5205/reuol.9003-78704-1-SM. 1005201601
- 13. Garbaccio JL, Garcia TF, Cândida DA. Evaluation of the independence of older adults attended by a family health strategy. Cogitare Enferm [Internet]. 2013 Oct/Dec [cited 2019 Aug 10]; 18(4): 637-46. Available from: https://revistas.ufpr.br/cogitare/article/view/34914/21668
- 14. Salazar-Barajas ME, Crespo ML, Cortez PLH, Reyna MLAV, Cabriales ECG, Meza MVG, et al. Factors contributing to active aging in older adults, from the framework of Roy's adaptation model. Invest Educ Enferm. 2018 May; 36(2):E08. DOI: 10.17533/udea.iee.v36n2e08.
- 15. Rantanen T, Saajanaho M, Karavirta L, Siltanen S, Rantakokko M, Viljanen A, et al. Active aging resilience and external support as modifiers of the disablement outcome: AGNES cohort study protocol. BMC Public Health. 2018 May; 18(1):565. DOI: 10.1186/s12889-018-5487-5
- 16. Techera MP, Ferreira AH, Sosa CL, Marco NV, Muñoz LA. Meanings attributed to active and healthy aging to a group of elderly people living in community. Texto contexto-enferm. 2017 Aug; 26(3):1-9. DOI: 10.1590/0104-07072017001750016
- 17. Sixsmith J, Sixsmith A, Fänge AM, Naumann D, Kucsera C, Tomsone S, et al. Healthy ageing and home: The perspectives of very old people in five European countries. Soc Sci Med. 2014 Apr; 106:1-9. DOI: 10.1016/j.socscimed.2014.01.006
- 18. Bowling A. Perceptions of active ageing in Britain: divergences between minority ethnic and whole population samples. Age Ageing. 2009 Nov; 38(6):703-10. DOI: 10.1093/ageing/afp175
- 19. Hawley H. Older adults' perspectives on home exercise after falls rehabilitation: Understanding the importance of promoting healthy, active ageing. Health Educ J. 2009 Sept; 68(3):207-18. DOI: 10.1177/0017896909339533
- 20. Gonzalez LMB, Seidl EMF. Active aging and social support among men participating in a Living Center for the elderly. Kairós. 2014; 17(4):119-39. DOI: 10.23925/2176-901X.2014v17i4p119-139

- 21. Silva PA. Individual and social determinants of self-rated health and well-being in the elderly population of Portugal. Cad Saúde Pública. 2014 Nov; 30(11):2387-400. DOI: 10.1590/0102-311X00173813
- 22. Boulton-Lewis GM, Buys L. Learning Choices, older australians and active ageing. Educ Gerontol. 2015 June; 41(11):757-66. DOI: 10.1080/03601277.2015.1039455
- 23. Aird RL, Buys L. Active aging: exploration into self-ratings of "Being Active", out-of-home physical activity, and participation among older australian adults living in four different settings. J Aging Res. 2015 Aug; 15:01-12. DOI: 10.1155/2015/501823
- 24. Bowling A, Stafford M. How do objective and subjective assessments of neighbourhood influence social and physical functioning in older age? Findings from a british survey of ageing. Soc Sci Med. 2007 June; 64(12):2533-49. DOI: 10.1016/j.socscimed.2007.03.009
- 25. Elliott J, Gale CR, Parsons S, Kuh D, HALCyon Study Team. Neighbourhood cohesion and mental wellbeing among older adults: a mixed methods approach. Soc Sci Med. 2014 Apr; 107:44-51. DOI: 10.1016/j.socscimed.2014.02.027
- 26. Cinderby S, Cambridge H, Attuyer K, Bevan M, Croucher K, Gilrov R, et al. Co-designing urban living solutions to improve older people's mobility and well-being. J Urban Health [Internet]. 2018 Apr [cited 2018 Sept 03]; 95:409-22. Available from: https://link.springer.com/content/pdf/10.1007/s11524-018-0232-z.pdf
- 27. Michael YL, Green MK, Farquhar SA. Neighborhood design and active aging. Health Place. 2006 Dec; 12(4):734-40. DOI: 10.1016/j.healthplace.2005.08.002
- 28. Navarro JHN, Andrade FP, Paiva TS, Silva DO, Gessinger CF, Bós AJG. The perception of the young and long-lived elderly 'Gauchos' (from the State of Rio Grande do Sul, Brazil) about the public spaces they live in Resumo. Ciênc Saúde Colet. 2015 Feb; 20(2):461-70. DOI: 10.1590/1413-81232015202.03712014
- 29. Marquet O, Miralles-Guasch C. Neighbourhood vitality and physical activity among the elderly: the role of walkable environments on active ageing in Barcelona, Spain. Soc Sci Med. 2015 June; 135:24-30. DOI: 10.1016/j.socscimed.2015.04.016
- 30. Sánchez-Gonzáles D, Topete MBC. Attractive public spaces in active and healthy aging. The case of the Terán Market in Aguascalientes (Mexico). Rev Estud Soc. 2016 July/Sept; 57:52-67. DOI: 10.7440/res57.2016.04
- 31. Lai M, Lein S, Lau S, Lai M. Modeling age-friendly environment, active aging, and social connectedness in an emerging asian economy. J Aging Res. 2016 May; 1-14. DOI:
- 10.1155/2016/2052380

- 32. Silva EAR, Elali GA. The role of public squares in the active aging from the point of view of the experts. Pesqui Prát Psicossociais [Internet]. 2015 July/Dec [cited 2019 Aug 10]; 10(2):382-96. Available from: http://www.seer.ufsj.edu.br/index.php/revista_ppp/article/view/Ribeiro%20da%20Silva%2C%20Elali/1054
- 33. Alencar MSS, Leite ALI, Memoria SVF, Sousa JMS. Perceptions of the professionals of the health of the family regarding the attention to the elderly in Teresina-PI, Brazil. Rev Bras Geratr Gerontol. 2010 Sept/Dec; 13(3):475-85. DOI: 10.1590/S1809-98232010000300013
- 34. Mendoza-Ruvalcaba NM, Arias-Merino ED. "I am active": effects of a program to promote active aging. Clin Interv Aging. 2015 May; 10:829-37. DOI: 10.2147/CIA.S79511
- 35. Ortiz-Colón AM. University Senior Programs and Active Ageing. Form Univ. 2015 Feb; 8(4):55-62. DOI: 10.4067/S0718-50062015000400007
- 36. Martínez-Maldonado ML, Correa-Muñoz E, Mendoza-Núñez VM. Program of active aging in a rural Mexican community: a qualitative approach. BMC Public Health. 2007 Oct; 7(276):1-9. DOI: 10.1186/1471-2458-7-276
- 37. Hung J, Lu K. Research on the healthy lifestyle model, active ageing, and loneliness of senior learners. Educ Gerontol. 2013 Oct; 40(5):353-62. DOI: 10.1080/03601277.2013.822200
- 38. Sousa EMS, Oliveira MCC. Live (and) to learn: an intervention for the active aging promotion. Rev Bras Geriatr Gerontol. 2015 Apr/June; 18(2):405-15. DOI: 10.1590/1809-9823.2015.14055
- 39. Diaz-Lopez MP, Lopez-Liria R, Aguilar-Parra JM, Padilla-Gongora D. Keys to active ageing: new communication technologies and lifelong learning. Springerplus. 2016 June; 5(768):768. DOI: 10.1186/s40064-016-2434-8
- 40. Latorre JM, Serrano JP, Ricarte J, Bonete B, Ros L, Sitges E. Life review based on remembering specific positive events in active aging. J Aging Health. 2015 Feb; 27(1):140-57. DOI: 10.1177/0898264314541699
- 41. Gjevjon ER, Øderud T, Wensaas GH, Moen A. Toward a typology of technology users: how older people experience technology's potential for active aging. Nurs Inform. 2014 June; 201:25-31. DOI: 10.3233/978-1-61499-415-2-25
- 42. Costa NP, Polaro SHI, Vahl EAC, Gonçalves LHT. Storytelling: a care technology in continuing education for active ageing. Rev Bras Enferm. 2016 Nov/Dec; 69(6):1068-75. DOI: 10.1590/0034-7167-2016-0390
- 43. Seinfeld S, Sanchez-Vives M. Healthy aging promotion through neuroscientific information-based strategies. Int J Environ Res Public Health. 2015 Oct; 12(10):12158-70. DOI: 10.3390/ijerph121012158

- 44. Patrocínio WP, Todaro MA. Education Program for Healthy Aging. Kairós Gerontol [Internet]. 2012 June; 15(3):05-27. DOI: 10.23925/2176-901X.2012v15i2p5-27
- 45. Olympio PCAP, Alvim NAT. Board games: gerotechnology in nursing care practice. Rev Bras Enferm. 2018 Aug; 71(Suppl 2):818-26. DOI: 10.1590/0034-7167-2017-0365
- 46. Gonçalves J, Gomes MI, Fonseca M, Teodoro T, Barros PP, Botelho MA. Selfie aging index: na index for the self-assessment of healthy and active aging. Front Med [Internet]. 2017 Dec [cited 2018 Sept 13]; 4:236. DOI: 10.3389/fmed.2017.00236
- 47. Dias KCA, Bara VMF, Salimena AMO. O cotidiano de enfermeiras do programa de saúde da família na promoção do envelhecimento ativo. HU Revista [Internet]. 2012 Apr/June [cited 2018 Sept 14]; 38(3-4):143-49. Available from: https://periodicos.ufjf.br/index.php/hurevista/article/view/1945/737
- 48. Kanashiro MM, Yassuda MS. Adaptation and applicability of the Adelaide activities profile for older adults of a community of Japanese origin. Psicol Reflex Crit. 2011; 24(2):245-53. DOI: 10.1590/S0102-79722011000200005
- 49. Haque N. Active ageing level of older persons: regional comparison in Thailand. J Aging Res. 2016 June; 2016:9093018. DOI: 10.1155/2016/9093018
- 50. Ferreira OGL, Maciel SC, Costa SMG, Silva AO, Moreira MASP. Active aging and its relationship to functional independence. Texto contexto-enferm. 2012 July/Sept; 21(3):513-8. DOI: 10.1590/S0104-07072012000300004
- 51. Morsch P, Pereira GN, Navarro JHN, Trevisan MD, Lopes DGC, Bós AJG. Clinical characteristics and social determinants in a sample of non-homebound elderly. Cad Saúde Pública. 2015 May; 31(5):1025-34. DOI: 10.1590/01021-311X00053014
- 52. Malderen LV, Mets T, Vriendt P, Gorus E. The active ageing-concept translated to the residential long-term care. Qual Life Res. 2013 June; 22:929-37. DOI: 10.1007/s11136-012-0216-5
- 53. Malderen LV, Mets T, De Vriendt P, Gorus E. Active ageing within the nursing home: a study in Flanders, Belgium. Eur J Ageing. 2016 Sept; 13(3):219-30. DOI: 10.1007/s10433-016-0374-3
- 54. Galli R, Moriguchi EH, Bruscato NM, Horta RL, Pattussi MP. Active aging is associated with low prevalence of depressive symptoms among Brazilian older adults. Rev Bras Epidemiol. 2016 Apr/June; 19(2):307-16. DOI: 10.1590/1980-5497201600020008
- 55. Braga LS, Lima-Costa MF, César CC, Macinko J. Social inequalities on selected determinants of active aging and health status indicators in a large brazilian city (2003-2010). J Aging Health. 2016 Feb; 28(1):180-96. DOI: 10.1177/0898264315589575

- 56. Pérez-Cuevas R, Doubova SV, Bazaldpua-Merino LA, Reyes-Morales H, Martínezk D, Karam R, et al. A social health services model to promote active ageing in Mexico: design and evaluation of a pilot programme. Ageing Soc. 2015 Aug; 35(7):1457-80. <u>DOI:</u> 10.1017/S0144686X14000361
- 57. López PM, Fernández-Ballesteros R, Zamarrón MD, López SR. Anthropometric, body composition and health determinants of active ageing: a gender approach. J Biosoc Sci. 2011 Sept; 43:597-610. DOI: 10.1017/S0021932011000228
- 58. Cavalli AS, Pogorzelski LV, Domingues MR, Afonso MR, Ribeiro JAB, Cavalli MO. Motivation of elderly people to engage in physical exercising: a comparative study between two university-based programs Brazil and Portugal. Rev Bras Geriat Gerontol. 2014; 17(2):255-64. <u>DOI:</u> 10.1590/S1809-98232014000200004
- 59. Oliveira AM, Costa GPA. Demographic, clinical and functional profile of elderly participants and non-participants in community activities of church. Rev Ter Ocup. 2011 May/Aug; 22(2):153-61. DOI: 10.11606/issn.2238-6149.v22i2p153-161
- 60. Hirai H, Kondo K, Kawachi I. Social determinants of active aging: differences in mortality and the loss of healthy life between different income levels among older japanese in the ages cohort study. Curr Gerontol Geriatr Res. 2012 Sept; 12:01-9. DOI: 10.1155/2012/701583
- 61. Pavlova MK, Silbereisen RK. Perceived expectations for active aging, formal productive roles, and psychological adjustment among the young-old. Res Aging.2016 Feb; 38(1):26-50. DOI: 10.1177/0164027515573026
- 62. Rajola F, Frigerio C, Parrichi M. Financial well-being in active ageing. Stud Health Technol Inform. 2014; 203:69-77. DOI: 10.3233/978-1-61499-425-1-69
- 63. Vera I, Lucchese R, Nakatani AYK, Sadoyama G, Bachion MM, Vila VSC. Factors associated with family dysfunction among non-institutionalized older people. Texto contexto-enferm. 2015 Apr/June; 24(2):494-504. DOI: 10.1590/0104-07072015001602014
- 64. Perales J, Martin S, Ayuso-Mateos JL, Chatterji S, Garin N, Koskinen S, et al. Factors associated with active aging in Finland, Poland, and Spain. Int Psychogeriatr. 2014 Aug; 26(8):1363-75. DOI: 10.1017/S1041610214000520
- 65. León LP, Lévy JP, Fernández T, Ballesteros S. Modeling active aging and explicit memory: an empirical study. Health Soc Work. 2015 Aug; 40(3):183-90. DOI: 10.1093/hsw/hlv044
- 66. Molina-Mula J, Gallo-Estrada J, Miquel-Novajra A. Attitudes and beliefs of Spanish families regarding their family members aged 75 years and over who live alone: a qualitative study. BMJ Open. 2019 May; 9(4):e025547. DOI: 10.1136/bmjopen-2018-025547

- 67. Cavalcanti AD, Moreira RS, Diniz GTN, Vilela MBR, Silva VL. Active aging and its interface with social determinants of health. Geriatr Gerontol Aging. 2018 Jan/Mar; 12(1):15-23. DOI: 10.5327/
- 68. Pinto JM, Neri AL. Factors related to low social participation in older adults: findings from the Fibra study, Brazil. Cad Saúde Colet. 2017 July/Sept; 25(3):286-93. DOI: 10.1590/1414-462X201700030300
- 69. Bélanger E, Ahmed T, Filiatrault J, Yu H, Zunzunegui MV. An empirical comparison of different models of active aging in canada: the international mobility in aging study. The Gerontologist. 2017 Apr; 57(2):197-205. DOI: 10.1093/geront/gnv126
- 70. Marsillas S, Donder L, Kardol T, Regenmortel SV, Dury S, Brosens D, et al. Does active ageing contribute to life satisfaction for older people? Testing a new model of active ageing. Eur J Ageing. 2017 Feb; 14(3):295-310. DOI: 10.1007/s10433-017-0413-8
- 71. Thanakwang K, Isaramalai S, Harrhakit U. Development and psychometric testing of the active aging scale for Thai adults. Clin Interv Aging. 2014 July; 9:1211-21. DOI: 10.2147/CIA.S66069
- 72. Farias RG, Santos SMA. Determinants influence of aging active among elderly more elderly. Texto contexto-enferm. 2012 Jan/Mar; 21(1):167-76. DOI: 10.1590/S0104-07072012000100019
- 73. Campos ACV, Ferreira EF, Vargas AMD. Determinants of active aging according to quality of life and gender. Ciênc Saúde Colet. 2015 July; 20(7):2221-37. DOI: 10.1590/1413-81232015207.14072014
- 74. WHOQOL Group. The World Health Organization quality of life assessment (WHOQOL): Position paper from the World Health Organization. Soc Sci Med. 1995 Nov; 41(10):1403-9. DOI: 10.1016/0277-9536(95)00112-K
- 75. Mira BC, Ferreira AMR, Ozela CS, Santos MIPO, Palmeira IP, Silva SED. Socioeconomic and behavioral determinants that permeate the active aging of elderly people from a community living center. J Res Fundam Care online. 2019 Oct/Dec; 11(5):1122-8. DOI: 10.9789/2175-5361.2019.v11i5.1122-1128
- 76. Alvarenga GMO, Yassuda MS, Cachioni M. Digital inclusion with tablets between elderly: methodology and cognitive impact. Psic Saúde Doenças. 2019 Aug; 20(2):384-401. DOI: 10.15309/19psd200209
- 77. Vegi ASF, Fernandes Filho EI, Pessoa MC, Ramos KL, Ribeiro AQ. Walkability and healthy aging: an analytical proposal for small and medium-sized Brazilian cities. Cad Saúde Pública 2020 Mar; 36(3):e00215218. DOI: 10.1590/0102-311x00215218

78. Silva LGC, Oliveira FS, Martins IS, Martins FES, Garcia TFM, Sousa ACPA. Evaluation of the functionality and mobility of community-dwelling older adults in primary health care. Rev Bras

Geriatr Gerontol. 2019 Jan; 22(5):e190086. DOI: 10.1590/1981-22562019022.190086

79. Souza MS, Machado CV. Governance, intersectoriality and social participation in public policy:

the National Council on the Rights of the Elderly. Ciênc Saúde Colet. 2018 Oct; 23(10):3189-200.

DOI: 10.1590/1413-812320182310.14112018

80. Bernardo LD, Carvalho CRA. The role of cultural engagement for older adults: an integrative

review of scientific literature. Rev Bras Geriatr Gerontol. 2020 Jan; 23(6):e190141. DOI:

10.1590/1981-22562020023.190141

81. Abreu BM, Gomes AP, Martins S. ACTIVE AGING: from guidelines to actions aiming at improving

elderly people quality of life. Rev Perspec Polít Públic [Internet]. 2018 Jan/June [cited 2019 Aug

10]; 11(21):129-72. Available from: http://revista.uemg.br/index.php/revistappp/article/view/

2890/1599

82. Veras RP, Oliveira M. Aging in Brazil: the building of a healthcare model. Ciênc Saúde Colet.

2018 June; 23(6):1929-36. DOI: 10.1590/1413-81232018236.04722018

Correspondence

Andrelise Viana Rosa Tomasi Email: andrelisev@gmail.com

Submission: 4/25/2020 Accepted: 12/21/2020

Copyright © 2021 Journal of Nursing UFPE on line/JNUOL.

This is an open access article distributed under the CC BY 4.0 assignment Creative Commons Attribution-ShareAlike 4.0 International License, which allows others to distribute, remix, adapt and create from their work, even for commercial purposes, as long as they give it due credit for the original creation. It is recommended to maximize the dissemination and use of licensed materials.