





# Impact of Socialization on Active Aging in the Geriatric Population: A Systematic Literature Review

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**Abstract. Background:** Aging is a current concern of societies. The changes that it requires, not only from the health teams as their management, inspired this article across the elucidation of socialization effect on the aging process. New technologies are fundamental, but they do not replace the human relationship.

**Methods:** systematic literature review. The descriptors “healthy aging” AND “socialization or interpersonal relations” AND “geriatrics or older adults or elderly” were searched between December 3 to 4, of 2019, on the EBSCO and B-on platforms. Article selection performed according to criteria predefined: sample older than 60 years; an object of study related to the research question; ten-year time limit; and Portuguese and English languages.

**Results:** Article analysis comprised 9 out of 73 articles. Social interactions with family, friends, peers, and community influences successful and healthy aging in the elderly population. The level of well-being, optimistic spirit, development of physical activity, maintenance of independence, and cognitive function are factors that also affect this aging process.

**Conclusions:** It would be enriching to reach a consensual definition regarding active aging in the literature. The use of new technologies, such as video calls, are an important tool in social relationships, when close contact is not possible.

**Keywords:** Aging · Elderly · Socialization · Interpersonal relations

## 1 Introduction

The aging of the population is nowadays considered an emerging social problem in many countries. Data from the United Nations (UN) predicts a 46% increase in the world population over 60 years of age, up to 2030. This growth will occur at a higher

rate in developing countries, which may represent one of the most important social transformations. Portugal is in the 4<sup>th</sup> place of European Union countries with the highest percentage of seniors [1].

The increase in average life expectancy and the decrease in birth rates are associated with Portugal's condition. Together, these aspects encourage reflection on the profound transformations and consequent impact on people's lives. On this account, begins the pursuit of more appropriate responses and strategies for this new reality.

According to data from PORDATA (2015, cited in Serviço Nacional de Saúde (SNS), 2017), the aging rate in Portugal suffered a tremendous increase from 27.5% in 1961 to 143.9% in 2015. A considerable impact on society can be noted consequently, which requires adaptations and solutions at different levels, particularly regarding support systems, such as health, social security, education, justice, and transport systems.

The Portuguese case is not insulated, going along with other European countries. Contemporary society experiences one of the most striking phenomena: the demographic revolution characterized by the lower number of births and the magnification in longevity. Hereupon, a comprehensive set of factors are associated, not merely related to health but also highlighting better education, access to employment, income, and social security [2].

The Portuguese Nacional Statistic Institute – *Instituto Nacional de Estatística (INE)* – points to the further aging of the population. Demonstrated through the data, one out of three residents will be elderly by 2050. Thus, Portugal will occupy the third place as the country with the most elderly population in the world, right after Japan and Spain [3].

As previously known, the third objective outline in the Health and Well-being area of the UN Plan of Action for Sustainable Development aims to ensure a healthy life and promote well-being for all, throughout all ages. The World Health Organization (WHO) transmits several recommendations regarding changes in current health policies and service delivery to aged populations. Adding to this, WHO reinforces the importance of healthy aging, emphasizing the influence of life choices and individual trajectories in aging, which contribute to personal health and well-being [4].

Concerning active and healthy aging, Portugal is committed to the WHO Strategy and Global Action Plan for Healthy Aging, besides the fundamental values and objectives of the European Union (EU). Collectively, these directives support the promotion of active aging, which is observable in initiatives such as the EU Proposals for Action to promote Active and Healthy Aging and Solidarity between Generations (Decision No. 940/2011/U, of the European Parliament and of the Council, of September 14). This document points out the importance of technological evolution in monitoring the aging of the population, since it can provide an opportunity for optimizing the functional capacity of elderly, along with their well-being [5].

Active and healthy aging defines itself as the process of optimizing not only opportunities for health, social involvement, and safety, but also the development and maintenance of functional capacity to improve the quality of life as people age. Thereby this contributes to the well-being of the elderly, considering functional capacity as the result of the interaction of the person's intrinsic capacities (physical and mental) with the environment. The promotion of active aging requires a multidimensional approach in the light of accountability and permanent support among all generations [4, 5].

A way to overcome the challenges related to longevity and aging of the population has been associated with active and healthy aging promotion throughout the life cycle [5].

The term "active" refers to continuous participation in social, economic, cultural, spiritual, and civic life. In other words, it goes heavily beyond the concept of being physically and professionally active.

Although health conditions are decisive in active aging, its promotion is not restricted to the practice of healthy behaviours. On the contrary, it is crucial to consider environmental and personal factors, such as economic, social and cultural determinants, physical environment, health system, sex, and other determinants [5].

The main goal is well-being, a holistic concept that includes all the elements and components of life with high value to the person. Consequently, further than success and individual motivation achievements, healthy aging reflects life habits, support and opportunities based on society's effort to maintain the functionality of the elderly and to allow them experience what they wish [5].

Additionally, active and healthy aging can also suffice as an economic enhancer through the dynamism of entrepreneurship, co-creation, and co-development. Likewise, it is possible to generate added value through a positive impact for elderly's life quality. It includes aspects such as greater satisfaction of health professionals and caregivers, better family members and other informal caregivers' overall life and financial security quality, along with higher efficiency and increased productivity of health and social security systems [5].

Currently, we are witnessing a new paradigm on aging, with an anticipation of a significant increase in average life expectancy worldwide. From this standpoint, it would possibly result in profound changes in the current way of facing this stage of development. Nowadays, do not only want people to live longer, but a lifetime with more quality, which collectively underlines the importance of active aging.

This reality is accompanied by the integration of new technologies, enhancing novel lifestyles. In contradiction to a significant increase in chronic and degenerative diseases, society adopts new habits of sport and healthy eating practices, which promotes socialization among people who forward-looking for an extended and higher quality life.

Socialization is fundamental in all life stages. However, it has an outstanding importance when reaching old age, especially to allow autonomy, life experience value, and to motivate for quality and well-being.

The reflection on this reality led us to the central question that guides our research: Impact of socialization on active aging in the geriatric population.

According to the method for elaborating the research question recommended by the Joana Briggs Institute (Population, Intervention, Comparison and Outcomes (PICO)), was first identified: the study population (geriatric population), the intervention (socialization), and results (active aging), leading to the research's question: "What is the impact of socialization on active aging in the geriatric population?" [6].

As a common concern for this study researchers, we consider essential the study of socialization effects on the active aging of the geriatric population. However, given the time limit, it was necessary to focus on the study's question, prioritizing socialization/interpersonal relationships in this current theme that we would like to deepen. After reading some articles the researchers found that this social component is less studied, returning more evidence about the cognitive and physical dimensions. Accordingly, this study aims to map the existing knowledge produced in the scientific evidence concerning this social component in active aging and apply this knowledge in the practice of the researchers.

This question corresponds to an attempt to obtain answers that meet this current problem, embarking on a systematic review of the literature as the most suitable method in the current academic context.

The research development in accordance to achieve the following objectives: Analyse the importance of a worldwide aged population effect; Reflect on the need for active aging in the geriatric population; Investigate the impact of socialization on active aging in the geriatric population.

Most of the authors perform functions in the health team management area, and in their professional performance, are confronted with the issue of population aging. For this reason, they consider it an asset to carry out this research since the results obtained may be disseminated by the health professionals of the teams they manage. These actions promote projects and intervention strategies for the population over 60 years old, which provide more quality of life in this phase.

## 2 Methods

The applied methodology was a systematic literature review. The selection of articles and data extraction throughout the research process was implemented by at least two of the authors of the present review to reduce the error chance.

The research was performed from December 3 to 4, of 2019. The descriptors “healthy aging” AND “socialization or interpersonal relations” AND “geriatrics or older adults or elderly” were searched on the EBSCO platforms (databases CINAHL and SPORTD data) and B-on.

The selection of healthy aging descriptor had into account health descriptors and the lack of one option for active aging. This term is defined by “Development and maintenance of well-being and ideal physical, mental, spiritual, and social functions with the advancement of age.” (<http://decs.bvs.br/cgi-bin/wxis1660.exe/decserver/>).

Respecting the eligibility criteria for the selection of articles, the following was determined: sample structure with people over the age of 60, as it seeks to verify the evidence concerned to the intervention in the geriatric population; studies targeting socialization and/or interpersonal relationships in active aging; the time limit of the last ten years, to determine the most recent evidence; and articles written in Portuguese and English, as they are languages understood by the researchers.

The authors adopted the 60 years of age limit of the participants after no global consensus on the age of onset of the elderly life stage. In Portugal, the legislation establishes 65 years. However, other countries may have 60 years old as the age of the elderly life stage beginning. Consequently, when applying the Portuguese criterion, crucial scientific evidence could be ruled out.

It is worth mentioning that the studied articles referring to diverse concepts such as successful and healthy aging are also related to well-being in the elderly. The researchers took into consideration the existence of yesilarity and shared matter, whereby analysed in the review.

### 3 Results

The search resulted in a total of 73 articles – 31 from the EBSCO platform and 42 from B-on. After the removal of duplicates, 69 remained for analysis. Initially, their titles were read, which led to excluding articles that did not address the subject under study. By reading the summary, those with unfulfilled requirements regarding the language, study subject, and age of the target population, as well as the paid access factor, resulted in dismissing. Finally, the selection of articles took place through full reading. It is noteworthy that the selection process occurred in parallel with the validation of at least two of the researchers independently. At the end of this screening, 9 articles were ultimately chosen for review (Fig. 1).

Of the studies included, two of them took place in China [7, 8], another two in the USA [9, 10], one in Singapore [11], followed by one in Thailand [12], one in Japan [13], one in Canada [14], and finally, one in South Korea [15]. After article selection, the study’s relevant information was systematically retrieved, which is available in Fig. 1.

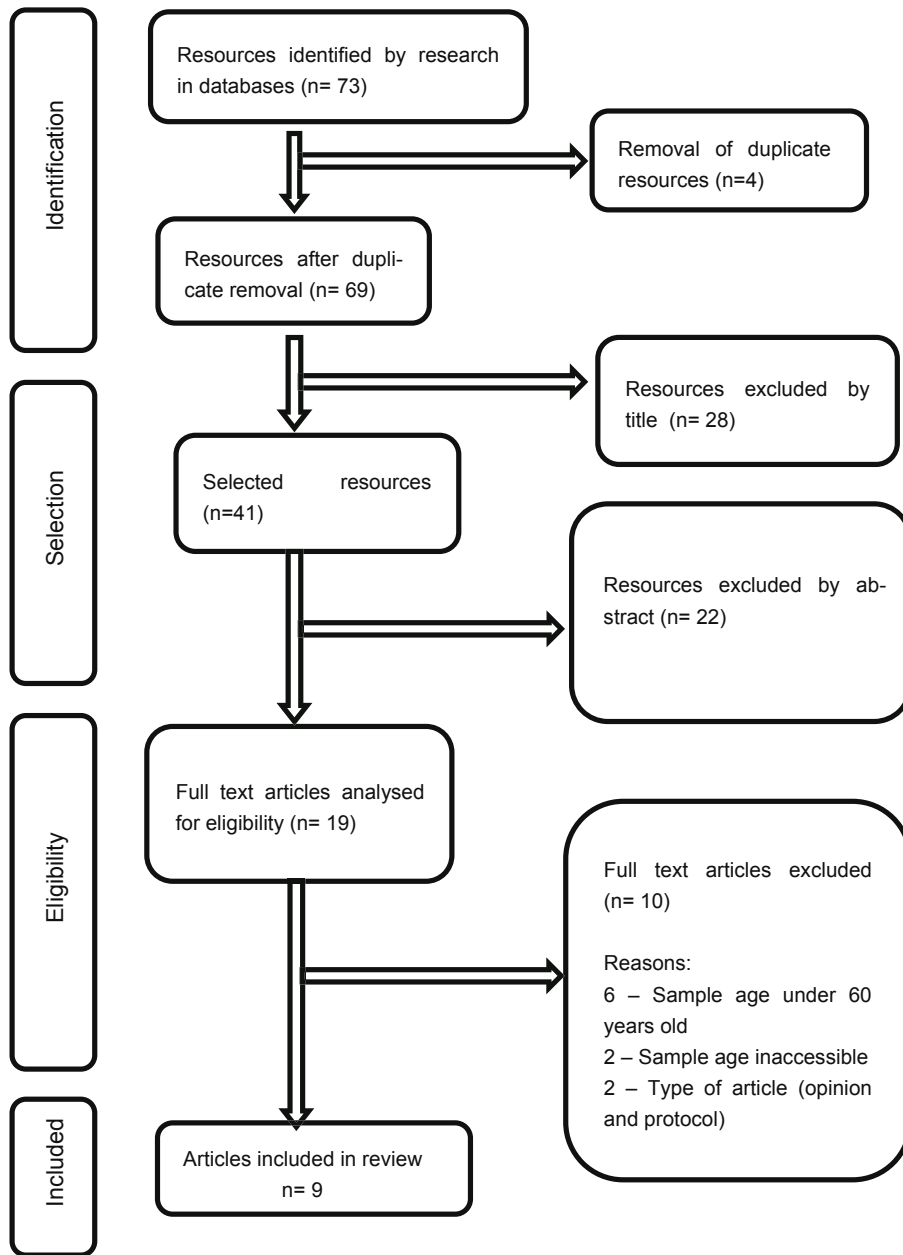


Fig. 1. PRISMA flowchart of the article selection process.

Reference	Sample	Evaluated dimensions	Objective	Results	Conclusion
Junling Gao, Scott R. Weaver, Hua Fu, Yingnan Jia, Jiang Li 2017 [7]	2719 people with more than 60 years of age	Dimension: subjective well-being Evaluated variables: gender, age, marital status, education, years living in the neighbourhood, health condition, chronic diseases, and leisure and physical activity	Examine the relationship between the social and physical components in a neighbourhood using the subjective well-being (SWB) assessment scale	After controlling for each covariate, social cohesion at the individual level and social interaction positively correlate with the SWB. Aesthetic quality at the individual and neighbourhood level also shows a positive correlation with the SWB	The creation of aesthetic and cohesive neighbourhoods can encourage elderly Chinese people to take part in social activities, promoting their SWB
Lee et al., 2017 [9]	550 elderly over 65 years of age	Dimension: successful aging. Variables: socio-demographic (gender, age, etnia, health perception, and education level); presence of positive symptoms and depressive symptoms, satisfaction with social life, limitations in activities of daily living	Develop a brief multidimensional questionnaire to assess successful aging (SA), evaluate its psychometric properties and the relationship between age and the dimensions of SA	Proactivity, well-being, a positive spirit, and established relationships influence successful aging, having been confirmed in both groups. The results also suggest that the Successful Aging Inventory scale may be a useful predictor of successful aging	It is important that successful aging models include social relationships and proactive involvement
Xu et al., 2016 [11]	122 elderly recruited from 10 senior activity centers	Variables analysed: social anxiety, socialization, and loneliness	Examine how "exergaming" influences social anxiety, socialization, and loneliness in the elderly. Additionally, analyse different effects of exergaming by different types of games and in different age cohorts	The results are inherent in a significant effect on the psychosocial well-being of the elderly. Sociability has improved to complement the elderly participants who played with their peers. Despite some disesilarities found between the different types of games or age groups, a decrease in loneliness after the exergame play is perceptible	The findings contributed to the research on active aging and how to promote social interaction among the elderly
Li e Zhang, 2015 [8]	4190 people from China's Longitudinal Longevity Study	Socio-demographic variables: Age, gender, residence, household, education, employment before retirement, financial support, smoking, relationship with alcohol; Daily life activities; Instrumental life activities; Cognitive function	To verify the impacts of social networks on the health of the older population (physical, cognitive, psychological, and general), and the relationship between the health of the elderly population and the type of social network chosen	The results demonstrate that there is an association between the types of networks (diverse, friends, family, and restricted) and health (physical, cognitive, psychological, and well-being). The diverse social network benefits the health of its users	Social interaction improvement in the elderly can reduce the vicious circle between social isolation and poor health conditions

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Reference	Sample	Evaluated dimensions	Objective	Results	Conclusion
Friedman et al., 2019 [10]	217 Individuals aged 60 or over from three different communities	Dimension: Eudemonic well-being. Variables: Mental health measures (hedonic and eudaimonic well-being, depression, anxiety, and loneliness) and physical health (sleep, somatic symptoms)	Evaluate the "Lighten Up!" program as a promoter of eudaimonic well-being	Participants reported an increase in eudaimonic well-being, and there is a maintenance of these changes for 6 months. Additionally, they showed a significant decline in depressive symptoms, anxiety, and hostility	The program has positive effects to improve well-being in the elderly who live in various community settings
Thanakwang, & Soonthornhdada, 2015 [12]	469 Thai seniors from Nan province	Dimension: Healthy aging. Variables: Physical functioning, cognitive functioning, active involvement with life and positive spirituality and religiosity	Examine relationships between family, friendship network and support, health-promoting behaviour, and healthy aging	Family networks do not directly influence health-promoting behaviours but work as indirect support. Friendship networks have a direct effect on health promotion. Health promotion behaviours had a powerful influence on healthy aging, especially playing a significant role in mediating family relationships, supporting friendship, and healthy aging	Intervention programs should be designed to include a collaborative approach involving family and friends
Tanaka e Johnson, 2010 [13]	Study in Japan: Japanese aged 65 or over divided into two phases, the first with 4997 people and the second with 4044. Study in the USA: 2200 people over 60 years old	Dimension: Healthy aging. Variables: Social integration, physical disability, psychological health, gender, age, education, and pension value	Relationships between gender and the rural environment can have cultural effects on healthy aging	The results show that social interaction decreases the likelihood of depression and physical disability. Also, living in a house where there is more than one generation reduces symptoms of depression. Older men are less likely to have symptoms of depression than women. Elderly people living in rural areas are more likely to be physically disabled due to daily tasks, but less likely to experience depressive symptoms	If mental health is more important than physical health in increasing life expectancy, older people living in rural areas have a greater expectancy of surviving, as occurs in the USA

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Reference	Sample	Evaluated dimensions	Objective	Results	Conclusion
Bacsu et al., 2014 [14]	40 rural seniors over 65	Dimension: Healthy active aging in rural areas. Variables: Social integration, physical activity, independence, mental vision, optimism, and cognitive health	Describe the meaning of healthy rural aging and which factors influence it	The results agree with research on culture's importance and the need to address perceptions of healthy aging among different populations	Policymakers and researchers must develop more effective interventions to support healthy rural aging, considering their knowledge, experiences, and understandings of rural older people
Cha et al., 2012 [15]	350 Korean elderly people aged 60 and over	Dimension assessed: Successful aging. Variables: Self-esteem, competence, aging scale, self-efficacy scale, interpersonal relationship scale, the instrument of self-realization, and instrument of success	Examine and identify the factors that influence the degree of successful aging among older Korean adults	The results showed that the factor that most influenced successful aging was self-esteem, followed by self-realization, interpersonal relationships, and self-efficacy	Self-esteem is a major predictor of successful aging among Korean elderly people. Thus, health professionals must promote a sense of self-esteem and achieve greater adaptability to aging

Referência	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Check list
Junling Gao, Scott R. Weaver, Hua Fu, Yingnan Jia, Jiang Li	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	–	Transversal analytic
Jeong Eun Lee, Boaz Kahana, Eva Kahana	Yes	Yes	Yes	Yes	No	No	Yes	Yes	–	–	Transversal analytic
Xuexin Xu, Jinhui Li, Tan Phat Pham, Charles T. Salmon, Yen-Leng Theng	yes	No	No	Yes	Yes	Yes	Yes	Yes	N/A	–	Quasi experimental
Ting Li, Yanlong Zhang	Yes	No	No	Yes	Yes	No	No	Yes	N/A	–	Transversal analytic
EM Friedman, C. Ruini, CR Foy MS, L. Jaros, G. Love, & CD Ryff	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	–	Quasi experimental
Kattikā Thanakwang, & Kusol Soonthornhdada,	Yes	Yes	Yes	Yes	No	N/A	Yes	Yes	–	–	Transversal analytic
Kimiko Tanaka e Nan E. Johnson	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	–	–	Transversal analytic

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Referência	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Check list
Juanita Bacsu, Bonnie Jeffery, Sylvia Abonyi, Shanti Johnson, Nuelle Novik, Diane Martz e Sarah Oosman,	Yes	Yes	Yes	Yes	Yes	Pouco claro	Pouco claro	Yes	Yes	Yes	Qualitative research
Nam Hyun Cha, Eun Ju Seo e Sohyune R Sok	Yes	Yes	Yes	Yes	No	No	Yes	Yes	–	–	Transversal analytic
Y%	100%	78%	78%	89%	67%	22%	67%	100%	60%	100%	

## 4 Discussion

In the subject “What is the impact of socialization on active aging in the geriatric population?” two fundamental concepts arise - active aging and socialization. However, it is not possible to find a clear definition of active aging, exhibited with yesilar notions, such as successful aging and healthy aging. Socialization appears in our research, combined with other concepts such as social relationships and social interaction.

The concept of successful aging does not have a consensus in the literature, given its subjectivity [9]. It varies from person to person, as well as its influencing conditions. Some authors define it as adding life to the years, rather than adding years to life, embracing the person’s satisfaction with their present and past life. In the quantitative study performed, a multidimensional survey was used to assess successful aging, in which the authors concluded that this concept is also multidimensional, influenced by some variables associated with health and the psychological, behavioural, and social domains [9]. On the other hand, from the perspective of the participants who answered the survey, successful aging is influenced by well-being (physical health, cognitive functioning, and independence), positive spirit and the relationships established. This study provides preliminary contributions to the development of a successful aging inventory. Even so, in the opinion of the authors further studies are needed, namely of a longitudinal type, which allow generalizing the results achieved [9].

Rowe and Khan (1987, cited in Cha, Seo and Sok, 2012, p. 3) [15] define successful aging as the way an older adult, and the people around him, achieve maximum physical, mental and emotional satisfaction, demonstrating an active potential in each of these areas. For successful aging, the person must not have any disability or disease [15]. This definition is a little more comprehensive than the previous description since it includes people who relate to the elderly. Moreover, they are incisive regarding the physical and health conditions of the elderly, when stating that these conditions cannot be affected.

The factors that influence successful aging/healthy aging are targets of study, and in this review, were found three studies that demonstrate which components can influence successful aging and healthy aging. In the first study [15], authors evidence that

self-esteem, self-realization, interpersonal relationships, and self-efficacy are predictors related to successful aging. At the same time, the second study [14] highlights social interaction, physical activity, independence, optimism, and cognitive health as factors to consider. On the other hand, another study [11] presents an investigation about exergaming (interactive game combined with physical activity), where it became clear that well-being and socialization are highly related to healthy aging.

Cha et al. (2012) applied surveys to elderly South Koreans concluding that successful aging can be explained through the variables: self-esteem, self-realization, interpersonal relationships, and self-efficacy. The main predictor of successful aging is considered self-esteem, with strong bonds to life satisfaction. For the elderly to see themselves positively, they must focus on their strengths and not their weaknesses, as well as psychologically adapt to situations and optimally perform all social and family functions. Self-realization is the second predictor of active aging influence. This allows older people to have confidence in their performance, improving their psychological well-being. The desire for self-realization impels the elderly to demonstrate their abilities, thus reaching a higher level of psychological well-being and satisfaction with life. Interpersonal relationships are the third leading predictor that influences the well-being of the elderly. Self-efficacy reveals that the elderly believe they can still achieve their goals, allowing themselves to better manage the crises they may experience. The authors' concern with the well-being and satisfaction of the elderly is perceptible, relating these feelings to successful aging [15].

Another study [14] identified five areas related to healthy aging: social interaction, physical activity, independence, optimism, and cognitive health, through reports from people over 65 years of age. Elderly identify their circle of friends, neighbours, and family members as social interaction, valuing the relationship with their peers through experiences sharing. The elderly would like to establish connections with younger people, although their difficulties in initiating this interaction. Relationships established with family members are an essential factor in healthy aging. Social interaction is facilitated by technology, the telephone, and the internet, which are vital to maintaining contact between people. At the same time, they identify mobility as a significant element in social interaction. There must be adequate infrastructures for the elderly, such as ramps and with appropriate ambient conditions. Physical activity is noted as relevant to active aging. Participants identified the elderly center and churches as promoters of physical activity, underlining the need to try keeping themselves busy and involved in the community. Independence description referred to the ability to make their own decisions, to have self-sufficiency and freedom over their life. Interviewees further state that optimism is essential to allow and achieve healthy aging. It is necessary to have a positive outlook to accept the aging process. The spouse's lack of health and his are aspects that can impair this positive outlook. Additionally, they affirm that it is important to have care services, access to information about available services, and support to mental health to maintain a positive mind. Respecting cognitive health, respondents showed concern and anxiety regarding the cognitive decline and its impact on active aging. Thus, they fear losing the ability to meet their needs and take care of themselves. The authors alert to the study limitation that the elderly who live in nursing homes and those who have cognitive impairment have not representation. In this study, we can see that seniors heavily

emphasize mobility and its importance in maintaining their independence and activity. Mental health is also not neglected, and they report the importance of maintaining a healthy and positive mind. Social interaction makes it possible to combat loneliness, remaining active, allowing seeking healthy aging [14].

For other authors, promoting social interaction and improving psychosocial well-being are components of healthy aging. Therefore, they studied exergaming to social interaction promotion among the elderly [11]. Exergaming combines physical exercise and video games, constituting one of the ways to promote healthy and active aging according to the literature addressed by the authors of the article. The impact on social anxiety, loneliness, and sociability was then examined using exergame. Another analysis targets are differences regarding different types of games and different elderly cohorts. The authors concluded the psychosocial well-being of older adults had improved, with a decrease in anxiety-related to social interaction, remarkably when the game was played with others, especially with their peers instead of alone and with young people. By participating in games with others, social interaction is encouraged, decreasing loneliness. As limitations to the study, the authors point out that they mobilized a sample through convenience, of reduced size, and without random effect in elderly allocation to groups. Having said this, they could already know their gaming partners, which facilitates social interaction between them [11].

When comparing these three studies, it is possible to see that they all address the theme of social interaction as key elements for successful/healthy aging. Cha et al. (2012) [15] and Xu et al. (2017) [11] demonstrate that physical activity influences healthy aging and can be used as a tool to avoid loneliness. Besides, the reduction in the risk of diseases and disabilities occurs with the increase in physical activity [10]. On the other hand, the concept of well-being is implied in the studies mentioned above [11, 14, 15].

Another of the studies analysed in this review [7], evaluated subjective well-being in a sample of the Chinese population. This dimension stands out as a key point life quality, which can be defined as mental well-being and includes all the evaluations and perceptions, both positive and negative, that the individual has about his life. Subjective well-being is seen as an indicator of society's progress and as an objective to be achieved by health systems. Owing to the need for health care increase with age advancement, well-being maintenance at an older age has particular importance. The researchers sought to understand the impact of the physical and social attributes of the community on the subjective well-being of the Chinese. Research suggests a relationship between these attributes and the population's health, which is why they imply more aesthetic and cohesive neighbourhoods to increase social interaction and social activities promotion, mobilizing efficient and instrumental resources of the community [7].

The Longitudinal Study analysis upon the Japanese Aging at Nihon University [13], reports that social interaction decreases physical disability or depression among Japanese seniors, bearing in mind that an increased number of social roles (intra and extra-family) lead to a lower chance of disability or depression.

As a tool for studying social relationships, some researchers decided to mobilize social networks to understand their impact on the health of the elderly.

Social networks are related to social support and can result in health promotion through behaviours influence, thereby providing healthy aging. One of the studies

[12] measured healthy aging, health-promoting behaviours, family support, support for friendship, family networks, friendship networks, and the way they correlate. The findings show that the indirect effects of family and friends support in healthy aging are statistically significant. Thus, this type of support works through health promotion behaviours influencing their promotion, leading to healthy aging. These behaviours allow individuals to increase control over health-determining factors and incite beneficial choices, having in mind the goal of healthy living. Another result obtained in the study indicates that the family circle addresses subjects closer linked to specific diseases, such as diet and medication. At the same time, friends offer more informative and emotional support to promote behaviours such as physical activity [12].

Other authors [8] assume that social relationships have an impact on the health of the elderly and have studied this impact in several dimensions: physical, psychological, social, and general. They also intended to know the effect of the social network type chosen on the health of the elderly. They concluded that the social network related to friends has more physical benefits for the elderly than social networks based on family. Moreover, the results evidence a vicious circle that must have a stop, in which the deterioration of the physical and psychological health of the elderly leads to increased social isolation, which limits social networks and results in further health problems [8].

Both studies demonstrate that social networks have a positive impact on the health of the elderly, constituting themselves as health promoters, either through the network of friends or family.

Besides, policymakers should further develop recreational centers for older people to interact with friends in the community and promote group activities [12].

To promote successful aging is necessary to have supporting and productive educational programs, enabling the elderly to participate actively, applying their skills, and promoting their well-being along with their self-realization. The adoption of cognitive development and psychological satisfaction promotion initiatives are possible to develop in senior centers, as well as alumni associations, and religious gatherings, through social activities among the elderly. Nurses can include these data in their professional practice, fostering a positive outlook with a greater degree of adaptability promoted, and supporting self-esteem development across the elderly [15–18].

## 5 Conclusion

Through this systematic literature review, it was possible to analyse the impact of socialization on active aging. Although the concept of active aging is not a consensus in the scientific evidence, it took place an analysis of yesilar terms, such as successful aging and healthy aging. Ultimately, the successful and healthy aging process presents itself as multidimensional, strongly related to the person's physical and mental well-being. This process is influenced by the establishment of interpersonal relationships and social interaction, as well as through characteristics such as optimism and optimistic spirit, development of physical activity, maintenance of independence, and cognitive function. The use of new technologies, such as video calls, are an important tool in social relationships, when close contact is not possible.

Technological evolution has introduced new opportunities in order to maximize functional capacity, stimulate cognitive function and enhance new lifestyles, contributing to the well-being of people at older ages.

Today, social networks are also a reality present in the lives of these people and constitute an excellent social support, in addition to bringing them closer and updating them, they can also influence healthy behaviors.

The implementation of online courses, workshops and even the exergaming that consists of combining physical exercise with video games, are pointed out as methodologies that promote healthy and active aging.

The results evidenced in the studies analysed in the review cannot be generalized due to limitations presence. Thus, it is important to carry out studies, namely a longitudinal type with larger and more representative samples of the population. On the other hand, studies are scarce regarding the Portuguese on this subject, so its development would be crucial to confirm the applicability of these conclusions in our population.

As limitations to this review, the researchers point out the time limit of its occurrence. Additionally, there was not an evaluation of the methodological quality of the studies analysed, which is also a limitation since it would enrich the evidence synthesized in this article.

### Implications for Clinical Practice

Although the findings of this review cannot be generalized, the knowledge appropriation presented allows researchers to analyse the measures implemented in the health services they integrate, including the health care they provide, adjusting them to the needs of the elderly and their family. We consider important to continue the study of this theme, and to carry out more studies with samples of the Portuguese population to improve the care provided to the elderly, thus promoting an active aging in the population we attend daily.

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