

Active aging: the university as a health-enhancer space

Abstract

This article seeks to discuss the general health status of the elderly participating in an extension course lasting two years at the University of Santa Cruz do Sul, as well as to compare the results of this study with international studies in order to define actions for aging. To investigate the health status of the elderly, a descriptive quantitative and qualitative study was conducted, at 2014 and 2015, with 47 elderly people as sample. Instruments were used to have the cognitive functions and overall health situation of the elders assessed. The study presents the perspective of successful aging focusing on the following aspects: low probability of disease, good functional capacity (physical and cognitive), and active participation in the community. The studied sample has characteristics that, in some way, corroborate the general health status and the quality of life conditions, such as: the many years of study, the continuous search for activities related to knowledge, the involvement in different physical activities and leisure, socializing with family and friends. A random selection of international studies was also carried out for the purpose of data comparison. The research carried out added to the results of the comparative studies, demonstrated that, the insertion in university programs contributes in the prevention of the cognitive decline and the general state of health, contributing to a self-esteem and maintenance of the mental health, which reflects in an aging with quality of life.

Keywords: Active aging, health, continuing education, population aging

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Introduction

Despite the world increase of elderly population, the aging process is still seen from a prejudiced point of view by society. This is largely due to the spread of misconceptions about the real meaning of old age. Among these are the notions that biological and cognitive factors culminate in the deterioration of an individual's abilities and skills. The mistake in this idea shows that the social place of old age has not yet been given the legitimacy it deserves.¹

In the 1970s, Sociology and Psychology began the discussion about aging as a process linked to psychological, biological, and social factors. These aspects become important in the analysis of aging as a transition period, taking into account the historical context and the social relationships built over life.² More recent theories regarding the aging process refer to it as an active process, in which the priorities in terms of quality of life change. In the imminence of old age, vigor takes a back seat to issues related to the improvement of sensitivity and accumulation of life experiences. In this way, aging can be considered a new phase of life, with other challenges to be faced.¹

Based on these reflections, it is possible to state that elderly people are able to find alternatives to deal with this phase of life. In this sense, there is a potential to create possibilities in face of social changes and redefinition of past moments, family relationships, and friendships. Thus, aging can be seen from the perspective of positive aspects that value this moment of life, which allows to decrease the priority of balance between gains and losses, and to stimulate new achievements, typical of that moment of life.^{2,3} Regarding aging seen as a moment of life proactivity and definition of new goals, quality of life is thought of as an important mediator for obtaining resources that are useful in adapting to that moment and that are related to maintaining well-being. Quality of life is understood as the perception of well-being, based on an assessment of what one has accomplished, what one judges to be important, and the degree of satisfaction with achievements until that

moment. Therefore, according to Stival et al.⁴ "the quality of life of an old-age person is not simply the cure or prevention of a disease, but also his individual psychological well-being" (p. 396).

From this conception of quality of life, an understanding of the importance of lifelong learning emerges as a determining factor. To affirm the importance and the possibility of development during this period of life, authors like Villar et al.⁵ bring the concept of generativity, first used by Erikson. This model states that, during old age, it is possible to develop "generativity", empowering the person through educational processes. Through social and community development, modifying the contexts of participation to receive contributions from older people and favor their personal development process.⁶ Therefore, according to the authors, generativity in old age can be an important source of well-being and an important ingredient of active aging. And so, the programs developed for elderly people at universities presuppose the creation of an ideal environment to foster this personal development. And yet, they claim that the impact of these programs on people's psychological and social aspects is very important and needs to be studied in depth.

In that theoretical context, in 2014, the Programa Terceira Idade (*Program for the Elderly*) of UNISC created a two-year long extension program for old-age people called Universidade do Adulto Maior (UniAma — *University of Older Adults*), with a multidisciplinary nature. The model of a university open to the elderly called UniAma aims at offering a permanent education space for people over 60 years old who have completed regular educational activities. The program is four semesters long and offers 20 places every year. Three subjects are taught each semester, with 540 classroom hours in total. The subjects are: Social Media, Pedagogy of Aging, Tourism, Photography, Creativity, Gastronomy, History of Rio Grande do Sul, Study of Religions, Literary Workshop, Health of the Elderly, Memory and Citizenship, and Rights of the Elderly. They are taught by lecturers from various fields of knowledge. The first class of UniAma had 30

enrollments and was made up of 28 old-age people (23 female and 5 male students). In March 2015, the second class started with 26 elderly students (24 women and 2 men). Even though it is a recent project, initially offering 20 places, the strong demand from people over 60 years old meant that more places had to be made available before the beginning of the program. There is great demand for and interest in continuing education and, particularly, socialization.

Thus, the research carried out by Programa Terceira Idade at UNISC and UniAma intends to raise visibility of the issue of population aging. This article aims at reflecting on the discussions about the aging process from the perspective of successful aging while focusing on aspects such as 1) low probability of diseases and disabilities associated thereof, 2) good functional capacity (both physical and cognitive), and 3) active participation in the community.

Active aging

The health conditions of an individual are more than physical well-being. They consist of a relation between psychological and physiological aspects and objective and subjective components of these states. In this sense, health concepts focused on old age are influenced by other aspects that transcend the health/disease matter. They involve the influence of cultural and socioeconomic factors and interpersonal relationships. Therefore, it is essential to give importance to the aforementioned aspects and to value the capacities of the elderly to carry out activities that make them more autonomous instead of stigmatizing them as people in poor health (incapable people).⁷

One of the health indicators in aging is related to autonomy. Autonomy is the ability to decide on one's own actions and rules. Even if the elderly person has a disease, he is able to carry out his activities independently. Cognition and humor make up autonomy. Cognition means the possibility of understanding everyday issues and solving problems. It is composed by memory (information storage), executive function (planning, prediction, and sequencing and management of complex tasks), among others. Independence, linked to mobility, refers to the ability to carry out actions with one's own means. Mobility, a command linked to independence, is the individual's ability to move, including posture and walking, aerobic capacity, and sphincter control. Taking this into account, health in aging can be analyzed according to functional control, including cognition and mobility, which interact with each other. These aspects reveal the whole functionality of the elderly and reflect their ability to manage their lives and take care of themselves. Functionality assessment is based on the analysis of daily activities (tasks performed daily by the old-age person), and through such analysis it is possible to make correlations with their health conditions. This control reinforces the idea that health is the interaction of several factors (social, psychological, cultural, and spiritual), and not merely the absence of disease, as established by the World Health Organization.⁸

Autonomy in old age is linked to what authors refer to as successful aging. Successful aging can be defined by the presence of three aspects interconnected in a dynamic relationship, namely: 1) low probability of diseases and related disabilities; 2) good functional capacity, both physical and cognitive; 3) active participation in the community. In the first feature, there is not only the absence of disease, but also the persistence of life habits that affect long-term health, such as: obesity, smoking, glucose intolerance, among others. The idea that aging brings greater probability of diseases and disabilities is being deconstructed by studies, as the substantial changes that happen at this point in life are more related to environmental factors and lifestyles

than old age itself. The second feature is related to the maintenance of functional and psychic capacity. Such preservation is linked to economic factors, social relationships that involve family and friends, and leisure activities that are favorable to the elderly. As for the cognitive state, it is verifiable that a higher level of education strongly influences memory-loss matters in a positive way. The third feature focuses on interpersonal and community relationships. Individuals who have relationships other than those with family members and who participate in community activities expand their networks of emotional support and mutual help. These activities are acknowledged as productive for the elderly and expand aspects related to quality of life. Society has not yet acknowledged that isolation and/or loss of contacts is a risk factor for the health of the elderly. It is recognized that emotional support improves people's quality of life, in general, in the same way that it reflects positively on the lives of the elderly.⁷

The model of successful aging of Litvoc and Brito et al.⁷ can be seen below. The Figure 1 present this model lists the aspects presented as an active aging building process. Studies show that elderly people who take part in educational or leisure activities have successful aging and quality of life. The research by Stival et al.³ indicated that, in activities in which old-age people enjoy social relationships (friends and family), the scale used to measure Quality of Life is quite high. The survey by Moraes and Souza et al.⁹ also revealed that elderly people who have active social relationships that provide psychosocial support are associated with successful aging. Actions aimed at sociability, leisure and education of the elderly can provide an enhancement in quality of life. Thus, longevity creates new social demands and indicates the need for new attitudes that include coexistence with other generations in the same spaces. In this sense, several educational institutions have undertaken initiatives that include old-age people.¹⁰



Figure 1 Successful aging model.

Additionally, it appears that even with the elderly population being welcomed by educational institutions, those people have also been pursuing activities focused on knowledge as a continuous process. Faced with this scenario, universities, since the 1990s, have offered specific services for the elderly, such as the Universidade para a Terceira Idade (*University for the Elderly* — UNATIs). The UNATIs work towards offering teaching, research and extension actions aimed at aging people, with the intention of socially reincorporating the elderly, creating new study opportunities, bringing back and reaffirming their independence and autonomy.

As for the profile of old-age students who participate in the universities, Gomes, Loures and Alencar et al.¹¹ refer to the existence

of points that are common to this population. They are mature or elderly adults over 45 years of age and mostly women. Men rarely reach 20% of participation in the university activities. The authors also state that the background of the elderly varies from incomplete secondary school to higher education. In terms of professions, housewife, for women, and retired, for men, are the most common.¹¹

Oliveira and Noronha et al.,¹² in a study carried out at a University for the Elderly in Maranhão, came to the conclusion that the female gender forms the highest percentage of students, aged between 60 and 64 years. Most of them are widows/widowers and are retired. They claim to have their own home and family income greater than two minimum wages. Additionally, they report having not completed elementary school. As for the reasons that made them seek the University, the old-age participants reveal a desire to obtain more knowledge and say that social interaction is one of the greatest benefits achieved.

Another study by Nunes and Silva et al.,¹³ conducted at a UNATI in Rio de Janeiro, revealed that the elderly, mostly women, were between 70 and 75 years old, with educational background ranging from having completed elementary school to secondary school, with some exceptional cases in which the person had had undertaken higher education. These women are widows, but there are also a considerable number of married, divorced or single women. As for housing, they have their own residence and declare themselves retired. When building the profile of those people, Nunes and Silva et al.¹³ also covered in their research their participation in other social groups, and showed that the old-age people also attended religious meetings, some of them performed voluntary work, and a few were in groups in which they exercised political participation, such as political parties, and pensioner and retiree associations.¹³ It is possible to notice that, although the elderly who attend universities have similar characteristics, some aspects may vary according to regional differences. In addition to these initiatives, the Programa Terceira Idade (*Old Age Program*), which emerged at the University of Santa Cruz do Sul (UNISC), also stands out. In 1998, this Program was created with the objective of bringing together several fields of knowledge that had isolated actions both in terms of extension and research. Currently, more than two thousand elderly people are served by means of projects linked to the Program in the areas of health, information technology and social communication.

Method

Participants

Fifty elderly people enrolled in the extension program called UniAma in 2015 participated in the study. In that year, there were two classes in that program, one that had started activities in 2014 and another that had begun in 2015. Therefore, the inclusion criteria were to be duly enrolled in the program and the willingness to participate and sign the ICF. The exclusion criteria were being hospitalized or traveling during the data collection period and being no longer enrolled in the program at the time of the interview.

Material (Instrument)

A Multidimensional Assessment form was used, consisting of personal data, day-to-day activities, and physical health, and the Mini-Mental State Examination. Subsequently, the results were organized in Microsoft Office Excel 2.0 and descriptive statistics were performed using the SPSS 21 software, with verification of mean, median, standard deviation and frequencies when appropriate.

Procedures

It is a descriptive quantitative and qualitative study which was carried out at the University of Santa Cruz do Sul, located in the State of Rio Grande do Sul. This study was approved by the Institutional Review Board of the University of Santa Cruz do Sul (CAAE no. 46166215800005343), in compliance with the rules established by Resolution CNS 466/2012. The interviews with the participants and the application of the assessment instruments were carried out with the 47 elderly people who were available spontaneously. Data collection was conducted from July to December 2015 in a classroom of the University by trained academics and researchers, on days and periods in which the students had class, individually.

In addition, a narrative review of the literature was carried out, which according to Cordeiro et al.¹⁴ presents a thematic more open; hardly part of a specific issue well defined, not requiring a rigid protocol for its preparation. Thus, the selection of interactive articles was arbitrary, providing the author with information that had as a main characteristic the health investigation, in general, of elderly people enrolled in university programs, for purposes of comparison with the data collected in the empirical research carried out.

Results

After analyzing the collected data, it was possible to define some sociodemographic characteristics of the participants. In the chart below, data on sex, age, marital status, education and attendance at the program activities can be seen, which make up the profile of the elderly researched (Table 1–3).

Table 1 Profile of the UniAma elderly 2014, 2015

| General characteristics | Number | % |
|---|--------|--------|
| Age group | | |
| < 60 | 1 | 2.10% |
| 60–69 | 38 | 80.90% |
| 70–79 | 7 | 14.90% |
| >80 | 1 | 2.10% |
| Sex | | |
| Women | 40 | 85.10% |
| Men | 7 | 14.90% |
| Marital status | | |
| Single | 4 | 8.50% |
| Married/Steady union | 20 | 42.60% |
| Divorced | 5 | 10.60% |
| Widow/widower | 18 | 38.30% |
| Education | | |
| Completed primary education | 10 | 21.30% |
| Completed secondary education | 18 | 38.30% |
| Higher or technical education | 19 | 40.40% |
| Attendance at the program activities | | |
| 1 or 2x per week | 4 | 8.50% |
| 3 or 4x per week | 38 | 80.90% |
| 5 or more x per week | 5 | 10.60% |

Note: Information referring to data collection carried out with the UniAma group.

The following charts show the information included in the multidimensional assessment form and in the Mini-mental state examination.

Table 2 Grouped day-to-day activities

| Variables | Number | % |
|------------------------------|--------|--------|
| Lower-limb activities | | |
| Very difficult | 3 | 6.40% |
| Little difficult | 8 | 17.00% |
| Not difficult | 36 | 76.60% |
| Upper-limb activities | | |
| Very difficult | 5 | 10.60% |
| Little difficult | 12 | 25.50% |
| Not difficult | 30 | 63.80% |

Note: Information referring to data collection carried out with the UniAma group.

Table 3 Assessment of cognitive functions

| Mini-mental state examination (MEEM) | Number | % |
|--------------------------------------|--------|--------|
| No loss | 25 | 53.20% |
| Cognitive loss | 11 | 23.40% |
| Dementia | 11 | 23.40% |

Note: Information referring to data collection carried out with the UniAma group.

Discussion

Considering the distribution of the old-age people by age, it was observed that there is a large majority of young elderly (82%) in the sample, as well as women (85.1%). The most common marital status is “married” (42.6%), followed by “widow/widower” (38.3%), and “divorced” (10.6%), i.e., most of the participants have once experienced life as a couple. Regarding education, it can be seen that the majority of the elderly (78.7%) have completed secondary school, which corresponds to at least nine years of schooling. These people represent a profile of active elderly people, for when the frequency of activities performed is verified, most of them do it three or four times a week (80.9%), in addition to a percentage of more than 10% who perform five or more activities during the week. That is, that person goes to the University three to five times a week.

Corroborating these data, the study by Hardy, Oprescu et al.¹⁵ demonstrated that the elderly called Baby Boomers (born between 1946 and 1965) use successful strategies of engagement at the University. The phenomenological qualitative cohort research investigated how the elderly continued their studies in university programs. The results showed that, with determination and involvement in the social environment of the University, the elderly build a positive functioning that can contribute to their well-being and healthy aging.

The activities most frequently mentioned by the students other than UniAma were: hydrogymnastics, digital inclusion, the Programa Dançar (*Dance Program*), the Diabetes e Hipertensão Group (*Diabetes and Hypertension*), and the photography and radio workshops, all provided by Programa Terceira Idade. Argimon and Stein et al.¹⁶ point out that something essential for good quality of life in old age is self-care, that is, the harmony of different leisure activities as a factor of greater autonomy and emotional well-being.

According to Villar et al.⁵ brings data similar to these when comparing learning results acquired in different activities carried out with active elderly people. 448 elderly people aged 60 years and over participated in the study, with the following types of activities being developed by them: leisure activities (112 participants), studies at the University of the Elderly (113 participants), volunteering (133

participants), and active involvement in political organizations (90 participants). Most participants (97.5%) stated that they learned something of value from their involvement in active aging activities. However, even though the participants in that study learned something from all activities, the nature and depth of the learning were different. Participants involved in self-directed activities, such as leisure and study activities at the University of the Elderly, tended to mention the acquisition of self-oriented learning. Likewise, those who participated in activities aimed at other people, such as volunteering and political activism, were more likely to mention obtaining learning from a social dimension. Thus, the nature of the activity has become the determining factor of the type of learning acquired. Although self-centered activities favor learning specific to the situation at stake, activities oriented towards the other tend to promote more abstract learning, which can deepen the participant’s understanding of the social forces that operate in their community and society as a whole.

Regarding day-to-day activities of daily living, it was seen that as for actions of the lower limbs (lying down and getting out of bed without help, sitting for a long time, standing for half an hour, getting up from a chair after sitting for a long time, bending and kneeling, walking, running, and going up and down stairs), 76.6% of the elderly consider them not at all difficult, and in relation to actions of the upper limbs (raising the arms above the shoulders, taking showers by themselves without help, getting dressed without help, eating without help, and carrying weight), 89.3% consider them not at all difficult or not very difficult. It is possible to realize that these are independent elderly, both for activities considered basic, as for instrumental and advanced activities. It is known that the performance of advanced day-to-day activities can be used as an independent variable, related to high levels of functional capacity, quality of life, and mental health in aging, and some authors relate those to better physical and cognitive functioning.¹⁷

It is interesting to observe how mental functions are related to the performance of day-to-day activities and autonomy. “It is possible to notice that the decline of one of them tends to cause a decline in others as well”.¹⁸ Regarding the cognitive state of the old-age people in the research, 53.2% of them have their mental functions intact, without losses despite their age. The results obtained with the MMSE, although this test is a form of “screening”, reveal the existence of some cognitive loss in almost half of the assessed sample (46.8%), of which, 23.4% already display dementia symptoms. These findings show that although the elderly students are young, autonomous and mostly still independent, their mental functions are more impaired than their physical health. In general, the concern of science is with the cognitive decline of the elderly, but studies show that the reduction in the speed of our brain starts around the age of 30.¹⁸

When analyzing the results, it is possible to suggest the hypothesis that some sociodemographic characteristics of the studied sample may be predictive of the general health conditions found and the quality of life. In this sense, we can mention aspects found in the elderly participants that corroborate this hypothesis, such as: the many years of study, the continuous search for activities related to knowledge, the involvement in various physical and leisure activities, and the interaction with family and friends. These factors can act as protection indicators against cognitive decline and the general health conditions of the old-age people.

In this sense, Hardy et al.¹⁵ investigated the mental, social and physical benefits related to Baby Boomers’ university studies. The researchers used an adaptation of the health action process approach that consists of a self-regulatory framework with two distinct phases:

setting goals and pursuing goals. The adaptation of this approach was the substitution of the health goal for that of learning. These factors can act as indicators of protection against cognitive decline and the general health status of the elderly. The results emphasized the value of higher education from creating a supportive environment for baby boomer students, which, in addition to previous educational achievements, could help participants maintain good health and make informed health care decisions in the future. Most of the participants in this study reported that the main benefit of university education was for their mental (cognitive) health, added to several additional benefits, such as: improvements in self-efficacy and thinking skills (distinct from the benefits for mental health), as well as, the importance of social inclusion. From mental stimulation, involving individual planning and control of the environment, the elderly achieved success in the academic aspects of university study and, as a consequence, anticipated better general health results. Thus, university study for the elderly has a positive impact on their mental and social health, benefiting the individual and the community in general.

In the same direction, we observe the study by Ortiz-Colón et al.¹⁹ which, based on semi-directed interviews with teachers of elderly people in university programs, analyzed the extent to which these programs contributed to prevent the dependence of the elderly and to active aging. The results obtained indicated that the inclusion of the elderly in activities within the University favors their self-esteem and motivation, improves communication and interpersonal relationships, in addition to the development of emotional, physical and cognitive capacities. The interviewed teachers agree to affirm that there is the enhancement and maintenance of different capacities in the elderly, among which are learning, cognitive and social interaction. These three aspects are fundamental because they characterize an autonomous elderly person to define new goals and actively age. Still, university programs provide social participation to the elderly, in which they can contribute with ideas, debates on different topics, opinions, innovating and breaking with the general view that society has about old age. In this way, the University contributes to the three fundamental pillars on which active aging is built: participating, contributing and innovating.

Conclusion

It can be said that UniAma students are part of the elderly population that is considered active and that they have achieved successful aging. This is inferred due to the fact that these students remain socially involved in individual and collective activities, which suggests the continuous building of life projects in old age. We conclude that successful aging is accompanied by quality of life and must be fostered throughout all stages of development.

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Conflicts of interest

The authors declare that there is no conflict of interest.

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