

# The university as an ally for active aging and quality of life

## Abstract

This article discusses the health status of older persons participating in an extension course lasting two years at the University of Santa Cruz do Sul/RS, Brazil, from a descriptive quantitative and qualitative study conducted in 2014 and 2015, with 47 persons over 60. Instruments were used to assess the elders' cognitive functions and overall health. 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 corroborate the general health status and quality of life conditions, such as the many years of study, the continuous search for knowledge-related activities, the involvement in different physical and leisure activities, and socializing with family and friends. The research indicates that the insertion in university programs contributes to the prevention of cognitive decline and the general state of health, contributing to self-esteem and maintenance of mental health, which reflects in aging with quality of life.

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

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## Introduction

Despite the world's increase in older people, society still sees the aging process from an erroneous point of view. That is due to the spread of misconceptions about the meanings of old age in common sense. Among these are the notions that biological and cognitive factors take the deterioration of an individual's abilities which is aging. Those mistakes indicate that the social topic of old age needs to be discussed with more relevance.<sup>1</sup>

In the 1970s, Sociology and Psychology began discussing aging as a process linked to psychological, biological, and social factors. These aspects become essential in analyzing aging as a transition period, considering the historical context and the social relationships built over life.<sup>2</sup> 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, physics energy takes a back seat to issues related to accumulating life experiences. In this way, aging can be considered a phase in which new challenges are faced.<sup>1</sup> Based on these reflections, it is possible to state that older persons can find alternatives to deal with old age. There is potential to create possibilities in the 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.<sup>2,3</sup>

Regarding aging as also a moment of proactivity and definition of new goals, quality of life is considered essential for obtaining resources to adapt to that moment and related to maintaining well-being. Quality of life understanding as the perception of well-being based on an assessment of what one has accomplished, what one considers necessary, and the degree of satisfaction with achievements until that moment. Therefore, according to Stival et al.,<sup>4</sup> "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".

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, authors like Villar et al.,<sup>5</sup> 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 via educational processes. Through social and community development, they modify the contexts of participation to receive contributions from older people and favor their development process.<sup>6</sup> Therefore, according to the authors, generativity in old age can be an essential source of well-being and an important component of active aging. Thus, the programs developed for older persons at universities presuppose the creation of an ideal environment to foster this personal development. They claim that the impact of these programs on older people's psychological and social aspects is significant.

In this context, in 2014, the University of Santa Cruz do Sul (UNISC), in Brazil, by Programa Terceira Idade (Program Third Age), created a two-year extension program for old-age people called Universidade do Adulto Maior (UniAma — University of Older Adults), with a multidisciplinary model. The UniAma aims to offer a permanent education space for people over 50 who have completed regular educational activities. There are 20 places offered every year. Divide into four semesters, with 540 classroom hours total. The subjects currently are Brain Gym, Computing, Recreational Activities, Spirituality and Nature, Phytotherapy and Experimental, Dance, and Gastronomy. The first class of UniAma was composed of 28 people over 60 (23 female and 5 male students).

There is a demand for and interest in continuing education and socialization for older persons. Thus, the research carried out by Programa Terceira Idade at UNISC and UniAma intends to raise the 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 relationship 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 aspects mentioned above and to value the capacities of the older person to carry out activities that make them more autonomous instead of stigmatizing them as people of poor health or incapables.<sup>7</sup>

One of the health indicators in aging is related to autonomy. Autonomy is the ability to decide on one's actions and rules. Even if the older person has a disease, he can carry out his activities independently. Cognition and humor make up autonomy. Cognition means the possibility of understanding everyday issues and solving problems. It comprises a memory (information storage) and executive function (planning, prediction, sequencing, and management of complex tasks), among others. Independence, linked to mobility, refers to the ability to carry out actions with one's means. Mobility, a command linked to independence, is the individual's ability to move, including posture and walking, aerobic capacity, and sphincter control. Health in aging can be analyzed according to operational control, including cognition and mobility, which interact. These aspects reveal the full functionality of the older person and reflect their ability to manage their lives and care for themselves. Functionality assessment is based on analyzing daily activities (tasks performed daily by the old-age person). Through such analysis, it is possible to compare 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.<sup>8</sup>

Autonomy in old age is linked to what authors refer to as successful aging. Successful aging can be defined by the presence of three interconnected aspects in a dynamic relationship: 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, and glucose intolerance. The idea that aging brings a 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 involving family and friends, and leisure activities favorable to the older person. As for the cognitive state, it is verifiable that a higher education level strongly influences memory-loss matters. The third feature focuses on interpersonal and community relationships. Individuals with 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 older person and expand their quality of life. Society has not yet acknowledged that isolation and/or loss of contact is a risk factor for the health of older people. It is recognized that emotional support improves those people's quality of life.<sup>7</sup>

The model of successful aging of Litvoc et al.,<sup>7</sup> can be seen below. Figure 1 presents this model and lists the aspects presented as an active aging building process.



**Figure 1** Successful Aging Model.

**Source** Adapted by authors of Litvoc & Brito (2004).

Studies show that older persons who participate in educational or leisure activities have successful aging and quality of life. The research by Stival et al.,<sup>4</sup> indicated that the scale used to measure Quality of Life is relatively high in activities in which old-age people enjoy social relationships (friends and family). The survey by Moraes et al.,<sup>9</sup> also revealed that older persons with functional social relationships that provide psychosocial support are associated with successful aging. Actions aimed at sociability, leisure, and educating older people can enhance their 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.<sup>10</sup>

Additionally, even with older adults 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 older persons, such as the Universidade para a Terceira Idade (University for the Third Age). The UNATIs work towards offering teaching, research, and extension actions aimed at aging people, intending to reincorporate the older people socially, creating new study opportunities, and bringing back and reaffirming their independence and autonomy.

As for the profile of old-age students who participate in the universities, Gomes et al.,<sup>11</sup> refer to the existence of common points to this population. They are mature or older adults over 45 years of age, primarily women. Men rarely reach 20% of participation in university activities. The authors also state that the background of older persons varies from incomplete secondary school to higher education. In professions, homemakers for women and retired men are the most common.<sup>11</sup>

Oliveira et al.,<sup>12</sup> in a study conducted at a University for Older People in Maranhão, Brazil, concluded that the female gender forms the highest percentage of students between 60 and 64. Most of them are widows/widowers and are retired. They claim a home and family income higher than two minimum wages. Additionally, they report having not completed elementary school. Because it made them seek the University, the old-age participants revealed a desire to obtain more knowledge and said that social interaction is one of the most significant benefits.

Another study by Nunes et al.,<sup>13</sup> conducted at a UNATI in Rio de Janeiro, Brazil, revealed that the older people, primarily women, were between 70 and 75 years old, with an educational background ranging from having completed elementary school to secondary school, with some exceptional cases in which the person had undertaken higher education. These women are widows, but many are married, divorced, or single. As for housing, they have their residence and declare themselves retired. When building the profile of those people, Nunes et al.,<sup>13</sup> also covered their participation in other social groups in their research. They showed that the old-age people also attended religious meetings, and some of them performed voluntary work. A few were in groups in which they exercised political participation, such as political parties and pensioner and retiree associations.<sup>13</sup> Although older people who attend universities have similar characteristics, some aspects may vary according to regional differences.

In addition to these initiatives, the Programa Terceira Idade (Program Third Age), which emerged at the University of Santa Cruz do Sul (UNISC), also stands out. In 1998, this Program was created to bring together several fields of knowledge that had isolated actions in terms of extension and research. More than two thousand older persons are served using projects linked to the Program in health, information technology, and social communication. There are graduation ceremonies that take place in each class, after 2 years of studies. At the graduation ceremony, a course completion certificate is presented to participants.

## Methods

### Participants

Fifty older persons enrolled in the program UniAma in 2015 participated in the study. That year, there were two classes, one that had started activities in 2014 and another that had begun in 2015. Therefore, the inclusion criteria were enrollment in the program and the willingness to participate and sign the informed consent form. The exclusion criteria were being hospitalized or traveling during the data collection period and no longer enrolled in the program at the time of the interview.

### Materials

A Multidimensional Assessment form consisting of personal data, day-to-day activities, physical health, and the Mini-Mental State Examination (MMSE). Subsequently, the data had added to Microsoft Office Excel 2.0. Descriptive statistics was solved using the Statistical Product and Service Solutions (SPSS) 21 software, verifying mean, median, standard deviation, and frequencies when appropriate.

### Procedures

It is a descriptive, quantitative, and qualitative study at the University of Santa Cruz do Sul (UNISC), located in Rio Grande do Sul, Brazil. This study has the approval of 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.

It was made interviews with the participants and the application of the assessment instruments with the 47 older persons who were available spontaneously. Data collection was conducted from July to December 2015 in a classroom of the University by experienced academics and researchers on days and periods in which the students had classes and individual ways.

## Results

After analyzing the collected data, it was possible to define some socio demographic 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 older persons researched.

Chart 1

Profile of the UniAma older people 2014, 2015

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

Chart 2

Grouped Day-to-Day Activities

Variables	Number	%
<b>Lower-limb activities</b>		
Very difficult	3	6.40%
Little difficult	8	17%
Not difficult	36	76.60%
<b>Upper-limb activities</b>		
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.

Chart 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 is possible to observe that a large majority of young older persons (82%) in the sample are women (85.1%). The most common marital status is “married” (42.6%), followed by “widow/widower” (38.3%), and “divorced” (10.6%). Most of the participants have once experienced life as a couple. Regarding education, older persons (78.7%) have completed secondary school, corresponding to at least nine years of schooling. These people represent a profile of active older 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 person goes to the University three to five times a week.

Corroborating these data, the study by Hardy et al.,<sup>14</sup> demonstrated that older people called Baby Boomers (born between 1946 and 1965) use successful engagement strategies at the University. The phenomenological qualitative cohort research investigated how older adults continued their studies in university programs. The results showed that, with determination and involvement in the social environment of the University, older persons build positive functioning that can contribute to their well-being and healthy aging. The activities most frequently mentioned by the students other than UniAma were: hydro gymnastics, digital inclusion, the dance program, diabetes and hypertension Group, and the photography and radio workshops provided by Programa Terceira Idade. Argimon et al.,<sup>15</sup> point out that self-care is essential for good quality of life in old age; the harmony of different leisure activities is a factor of greater autonomy and emotional well-being.

Villar et al.,<sup>5</sup> bring data similar to these when comparing learning results acquired in activities carried out with active older people. 448 older persons aged 60 years and over participated in the study, with the following types of activities developed by them: leisure activities (112 participants), studies at the University of the Older People (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 differed. Participants involved in self-directed activities, such as leisure and study activities at the University of the Older People, 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 in their community and society.

Regarding day-to-day activities of daily living, it was seen that 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 older persons consider them not at all difficult and concerning 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 complicated or not very difficult. These are independent older persons, both for primary and 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.<sup>16</sup>

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”.<sup>17</sup> Regarding the cognitive state of the old-age people in the research, 53.2% have their mental functions intact, without losses despite age. Although this test is a form of “screening,” the results obtained with the MMSE 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 older person's 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 older people, but studies show that the reduction in the speed of our brain starts around the age of 30.<sup>17</sup>

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 older persons' participants that corroborate this hypothesis, such as the many years of study, the continuous search for knowledge-related activities, 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 old-age people.

In this sense, Hardy et al.,<sup>14</sup> 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 older people. The results emphasized the value of higher education in creating a supportive environment for baby boomer students, which, in addition to previous educational achievements, could help participants maintain good health and make informed healthcare decisions. 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 older persons achieved success in the academic aspects of university study and, consequently, anticipated better general health results. Thus, university study for older people positively impacts their mental and social health, benefiting the individual and the community.



In the same direction, we observe the study by Ortiz Colón<sup>18</sup> which, based on semi-directed interviews with teachers of older adults in university programs, analyzed the extent to which these programs contributed to preventing the dependence of older people and active aging. The results obtained indicated that the inclusion of older persons in activities within the University favors their self-esteem and motivation and 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 older people, among which are learning, cognitive and social interaction. These three aspects are fundamental because they characterize an autonomous older person to define new goals and actively age. Still, university programs provide social participation to older persons, in which they can contribute with ideas and debates on different topics and opinions, innovating and breaking with societies general view about old age. In this way, the University contributes to the three fundamental pillars on which active aging is built: participating, contributing, and innovating.<sup>19</sup>

## Conclusion

The UniAma students are part of the older people population that is considered active. They have achieved successful aging since these students remain socially involved in individual and collective activities, which suggests the continuous building of life projects in old age. Successful aging goes along with the quality of life and must be cultivated throughout all stages of human development.

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## Conflicts of interest

The author declares there is no conflict of interest.

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