



Changes in quality of life: the experience of elderly persons at a university of the third age

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Abstract

Objectives: The aim of the present qualitative and quantitative study was to investigate whether the participation of elderly persons in the University of the Third Age (U3A) of the Federal University of São Paulo, Baixada Santista (Unifesp/BS) led to a perceived improvement in quality of life; the meaning of the term quality of life for the participants; and whether education and social interaction are considered relevant in any such perceived improvement. **Method:** Data were collected through the SF-36 questionnaire and semi-structured interviews at the beginning and end of the academic year. **Results:** The quantitative data did not differ significantly between the beginning and end of the research period, except for the variable Vitality (V). The qualitative results, however, signaled a perception of change in terms of education, social interaction and quality of life. **Conclusion:** The data indicated that participation in the University of the Third Age at the Federal University of São Paulo, Baixada Santista (Unifesp/BS) was associated with a perception of positive changes in the quality of life of the elderly persons, who considered social interaction and education to be an important part of these improvements.

Keywords: Elderly. Education. Social Interaction. Quality of Life. University of the Third Age.

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INTRODUCTION

Aging and quality of life

Aging can be interpreted as a process of various dimensions which encompasses changes dependent on biological, psychological and socio-historical factors. It includes aspects particular to each individual, such as genetics and everyday habits; and that are common to a certain group, such as socioeconomic and cultural factors¹⁻³. It should be emphasized, however, that this changing stage of life involves not only physical and emotional decline, but also opens the door to new explorations and experiences^{2,4}.

According to the Global AgeWatch⁵ international organization 18.8% of the population of Brazil will be over 60 years old by 2030, while by 2050 this percentage will reach 30%, meaning that the total number of elderly people aged over 80 years will be greater than the number of children under four⁶. This significant increase in the elderly population presents new challenges for society and its institutions, such as the creation and expansion of public policies to improve the quality of life of the elderly and allow them to break the paradigm of unproductiveness and dependence to enjoy a dignified and participatory old age⁷⁻⁹.

Quality of life, a subjective concept, has been defined as a phenomenon of multiple perspectives. In old age it is related to a fair socioeconomic situation and the protection of the family, the maintenance of intellectual activity, and the ability to adapt to physical, social and emotional losses. In short, it is related to the appreciation of the favorable aspects of life^{2,8,10}. In this sense, social interaction, leisure and education are important dimensions of maintaining the quality of life of the elderly^{8,11}.

Education and social interaction in the third age

The concept of permanent education suggested by the United Nations Educational, Scientific and Cultural Organization (UNESCO) is based around a dynamic system in which the construction and appropriation of knowledge occur throughout life, at a constant pace^{12,13}. The participation of the elderly in the educational process represents a preponderant

factor for their quality of life, through which they can remain integrated within an evolving society, develop their critical sense and be recognized as agents of their own history^{13,14}. The educational activities in the third age which are provided by Universities of the Third Age (U3A) must therefore meet the specificities of this age group, valuing their life histories and involvement, their broader social relations and relevant new learning^{9,13-15}.

Partnerships between the U3As, educational institutions and qualified professionals contribute to the reduction of stereotypes and help create new social interpretations^{2,16} encouraging so-called active aging^{2,17}. This new paradigm requires changes that emphasize respect for the elderly and their ability to contribute to society in this stage of life as much as any other, helping to solidify a new perception of aging, which will be fully accomplished when public policies of valorization and support become a reality^{2,9,17}.

The benefits of intergenerational relationships in the third age should be emphasized², as the interaction between the young and old in education programs encourages new perceptions and the renewal of expectations regarding the future^{2,18}. Social groups such as U3As are therefore consecrated as an environment of integration in which education can be reaffirmed through new learnings and exchanges¹², helping the elderly to improve their physical and mental quality of life, making them aware of the importance of self-care and self-worth, increasing their motivation and self-esteem and renewing their sense of citizenship^{2,4}.

The U3As and the U3A UNIFESP/BS

The first U3A was created by Pierre Vellas in France in the early 1970s to promote interaction among the elderly¹³. In Brazil, however, the first incursion into elderly education was developed by the Social Service of Commerce of São Paulo (SESC) in the 1960s. Since then, U3As have become more accessible and popular, supporting the development of the physical mental health and social life of the elderly through the pedagogical dynamics of the universities. The majority of the U3A programs in Brazil aim to promote reflections on aging and its

biopsychosocial developments, helping to overcome old-age-related prejudice and stigma¹²⁻¹⁹.

A study of U3As in Brazilian federal universities²⁰ has found that many offer such spaces in which the elderly can participate. Of the total surveyed, 36 maintain U3As that offer courses and activities for the elderly, study centers linked to extension and research, projects and programs aimed at this age group or some kind of partnership with foundations, associations, states and municipalities. Three such programs, such as Unifesp/BS, allow the elderly to attend some undergraduate classes. The teachers are, for the most part, university professors and employees who work on a voluntary basis. These universities, depending on their location and characteristics, offer courses, lectures, workshops and leisure activities to participants²⁰⁻²².

The present study aimed to identify if the participation of the elderly at Unifesp/BS promotes a perception of improvement in their quality of life; characterize this concept from the perspective of the participants; and verify if education and social interaction were relevant aspects of this perception. The research is important as the results of the study can encourage the participation of a greater number of elderly persons in academic and extension activities, as is the case with the University of the Third Age of the Universidade Federal de São Paulo-Baixada Santista (Unifesp/BS).

METHOD

A qualitative and quantitative descriptive and exploratory study was carried out. The participants were students from the two units of the U3A-Unifesp/BS, (Silva Jardim and Zona Noroeste). Each group comprised 50 students, who were predominantly female (93%), and lived in Santos, São Paulo.

The names of all the U3A-Unifesp/BS participants were listed in alphabetical order, and a randomized selection of the elderly was performed using the BR.Calc program, which allocated random numbers to the 50 names listed. This process was repeated until the expected number of participants was reached, which was ten for each group, based on a sample calculation performed considering the mean variable of the SF-36²³

instrument, an estimated standard deviation of 15, a difference to be found of 22, a level of significance of 5% and a test power of 90% for comparison between means. The following inclusion criteria were established: age between 65 and 90 years old; participate in one of the groups of the U3A-Unifesp/BS and respond to interviews and questionnaires at the beginning and end of the academic year, hereby indicated by (I) and (II). Participants who did not meet these criteria were excluded, along with those who participated in other social groups after the beginning of U3A-Unifesp/BS activities.

The participants were contacted and interviews were individually scheduled with those who agreed to take part in the study, respecting pre-established ethical aspects and subject to the signing of a Term of Free and Informed Consent. All the interviews were carried out and recorded by the researcher in one of the rooms of the institution.

In order to obtain the quantitative data, the Brazilian version of the SF-36 Quality of Life Questionnaire (SF-36)²³, translated, adapted and validated in Brazil by Ciconelli et al.²³, was applied at the beginning and end of the academic year of the U3A-Unifesp/BS. This is a generic questionnaire that aims to measure the perception of quality of life of the elderly through items, divided into eight domains: physical functioning, role limitations (physical), bodily pain, general health, vitality, social functioning, role limitations (emotional) and mental health. Its score ranges from zero to one hundred points, so that the higher the score, the better the perception of the quality of life of the interviewee.

The quantitative data were entered in an Excel spreadsheet for description, calculation of mean and standard deviation of the different variables. After confirming the absence of normality of data according to the D'Agostino-Pearson Test, the Wilcoxon Comparison Test was performed for the dependent samples, between the start and end of the academic year, and the Mann Whitney test for independent samples between groups was applied with a significance level of 5%, $p \leq 0.05$. These analyzes were performed using the S GraphPad Prism7 software.

In addition to the SF-36²³, the Socio-Economic Questionnaire of the Brazilian Association of Market

Research (ABIPEME)²⁴ was applied to classify the groups of participants. This instrument uses schooling and the possession of consumer goods to socioeconomically categorize a population.

For the qualitative analysis, semi-structured interviews guided by a script were recorded before the SF-36²³ questionnaire was applied, at the beginning and at the end of the academic year. The questions asked about the decision to join the U3A– Unifesp/BS; expectations regarding participation and opinions about the activities proposed during the lessons. The elderly participants were asked to conceptualize the term “quality of life”, evaluate it and report on the aspects that influenced it.

Following this stage the interviews were transcribed and analyzed using the Content Analysis/thematic analysis technique²⁵. The study was approved by the Research Ethics Committee of the Federal University of São Paulo - approval n^o. 936.239 and observed all the directives indicated by this body.

RESULTS AND DISCUSSION

Initially, of the 20 names drawn, 16 women and two men responded to the research instruments (ten from the Silva Jardim group and eight from the Zona Noroeste group), and are hereby referred to as E1 to E18. In the second interview, however, two participants were excluded as they had joined other social groups and two withdrew from the study. To homogenize the sample group, another man was excluded as the sample size was not representative of the total sample. The final sample of this study was therefore composed of thirteen women: (n=7) in the Silva Jardim (SJ group) with a mean age of 74.86 (\pm 3.34) years and a socioeconomic classification categorized as B, and (n=6) in the Zona Noroeste group (ZN group), with a mean age of 74.86 (\pm 3.34) years and a socioeconomic classification of C.

The results regarding the perception of quality of life obtained by the SF36²³ instrument are shown in Table 1, below:

Table 1. Perception of the Quality of Life (SF-36²³) of elderly women attending the University of the Third Age. Santos, SP, Brazil, 2016.

Variables	Total sample (N=13)	SJ group (n=7)	ZN group (n= 6)
Physical functioning	70.00 (\pm 17.56)	70.71 (\pm 18.80)	69.17 (\pm 17.72)
Physical functioning 2	71.54 (\pm 19.41)	80.00 (\pm 13.23)	61.67 (\pm 21.83)
Role limitations (physical)	71.15 (\pm 41.89)	71.43 (41.90)	70.83 (\pm 45.87)
Role limitations (physical) 2	69.23 (\pm 44.67)	78.57 (\pm 30.37)	66.67 (\pm 51.64)
Bodily pain	67.08 (\pm 20.43)	70.57 (\pm 17.79)	63.00 (\pm 24.19)
Bodily pain 2	66.54 (\pm 19.70)	70.14 (\pm 23.55)	62.33 (\pm 15.03)
General health perceptions	65.15 (\pm 17.18)	65.57 (\pm 14.35)	64.67 (\pm 21.47)
General health perceptions 2	63.15 (\pm 23.57)	67.86 (\pm 15.77)	62.33 (\pm 31.86)
Energy/Vitality	63.08 (\pm 19.64)	53.57 (\pm 15.20)	+74.17 (\pm 19.34)
Energy/Vitality 2	72.69*(\pm 21.85)	70.00* (\pm 15.81)	75.83 (\pm 28.71)
Social functioning	80.77 (\pm 18.83)	76.79 (\pm 18.30)	85.42 (\pm 20.03)
Social functioning 2	82.37 (\pm 24.34)	76.79 (\pm 22.16)	88.89 (\pm 27.22)
Role limitations (emotional)	76.92 (\pm 39.40)	71.43 (\pm 40.50)	83.33 (\pm 40.82)
Role limitations (emotional) 2	79.49 (\pm 34.80)	71.43 (\pm 71.43)	88.89 (\pm 27.22)
Mental health	77.23 (\pm 17.16)	68.57 (\pm 16.40)	87.33 (\pm 12.50)
Mental health 2	80.31 (\pm 15.53)	77.14 (\pm 15.09)	84.00 (\pm 16.59)
Mean	71.42 (\pm 17.76)	68.58 (\pm 15.75)	74.74 (\pm 20.86)
Mean 2	73.43 (\pm 18.20)	73.99 (\pm 16.31)	73.83 (\pm 24.34)

The number 2 next to the variables of the SF-36²³ refers to the results at the end of the academic year. Significance: $p \leq 0.05$ represented by (*) for comparison between moments, and (+) for comparison between groups. Total score: * $p = 0.044$ between initial and end of academic year for Vitality. Group SJ: * $p = 0.009$ between initial and end of academic year for Vitality + $p = 0.049$ comparing values between groups.

The quantitative results suggested that there were no significant difference between the initial and final data for the results of the SF-36²³ questionnaire in the Zona Noroeste group. In the Silva Jardim group, no relevant variations were recorded other than for Vitality (V), the value of which increased significantly between the initial and final moments ($p = 0.009$) and between groups ($p = 0.049$). The same was observed in the total sample, indicating that the increase in Vitality (V) in the Silva Jardim group affected the variation of these data. Comparing Vitality values (V) for both groups and considering a previous study by Bittar et al.²⁶ [n = 53; average age 67.90 (± 6.11)], whose initial values for this aspect [68.56 (± 23.18)] were similar to the Zona Noroeste group [74.17 (± 19.34); mean age 67.83 (± 1.17)], it could be inferred that the initial value for Vitality (V) in the Silva Jardim group [53.57 (± 15.20)] was lower than expected before the beginning of U3A-Unifesp/BS activities, although the mean age of the participants was higher [74.86 (± 3.34)].

Almeida et al.²⁷ also obtained positive results in all domains of the SF-36²³ in a comparative test between a group of elderly participants of a social group (G1) and a control group (G2). The differences between the groups were statistically significant, especially for the variables physical functioning ($p=0.000$), overall health perception ($p=0.004$), vitality ($p=0.014$), social functioning ($p=0.005$) and mental health ($p=0.035$).

The qualitative results, on the other hand, revealed that the interviewees considered their experience at the U3A-Unifesp/BS as notably beneficial. Content analysis of the interviews identified nuclei of meanings, later synthesized into themes, which are described below.

The interviews were about the decision to attend U3A- Unifesp/BS; expectations regarding participation, and opinions of the proposed activities. The elderly were asked to conceptualize the term “quality of life” and evaluate and report on aspects that influenced it. The answers revealed that most were encouraged to attend U3A-Unifesp/BS by relatives or friends; their expectations were related to socializing or occupying their free time, while the vast majority of the proposed pedagogical activities aroused their interest and curiosity both in the classroom and daily life.

“I saw that we were going to talk about water and I thought that’s interesting. It’s something I’m going to have to use in the class project. So I started, I spent Sunday watching Cultura TV, talking about water, about the planet. So it’s things that are interesting, that alter our lives and yet do not arouse our interest. Then U3A and the project opened my mind, which had been limited to recipes and the TV news. You begin to give importance to things that had previously gone unnoticed in your life” (I) (E7).

In the first interviews the participants related quality of life to health and happiness, satisfying basic needs and interacting with family and friends. In the second interviews more detailed elements were added and other dimensions were described, such as enjoying physical and emotional health; having access to good food and decent housing; participating in cultural and leisure activities; carrying out benevolent actions, having autonomy and peace of mind, as well as maintaining good family relations. This reaffirms that such formulation is conceived in a subjective and varied manner, which takes into account determinant factors such as health, emotional well-being, family, sociability, motor and intellectual functions, family relationships, satisfaction with life, self-care and spirituality^{3,28,29}.

“Quality of life is to be healthy, right? Enjoying a certain comfort, living somewhere practical, being able to move around, right? But the main thing is health!” (I) (E2).

“Quality of life? It’s if an elderly person is able to take part in activities, to go out, to go to the movies, to be able to go to the movies, to the theater, which, by the way, I like very much!” (II) (E13).

When evaluating their quality of life, some of the participants of the Silva Jardim group displayed dissatisfaction in the first interviews. At the end of the academic year, however, both groups assessed their quality of life as good or great.

“Currently? Oh it’s great! Yeah, I go out. I go for a walk. I have fun. I go out when I want to. I come back when I want, so... (laughs)” (II) (E1).

“I think my quality of life is good! First of all I do a lot of physical exercise, I care about what I eat too, right? And I try to get on with other people” (II) (E16).

Regarding influences on quality of life, at the beginning of the academic year, elements related to work, family and children were mentioned. At the end of the year, however, these multiplied and others were added, such as marital status, health, family, children, functional capacity and autonomy, self-image, social interactions, and romantic relationships.

“What do I think has the most influence? The love my children have for me” (II) (E4).

“In my quality of life, it was the U3A and him (her boyfriend). That’s what I said in an interview that we had there. No! in a description of the U3A, and at the end I said yeah, that God ... that I was very happy! That I [...] I already missed the U3A because it gave him to me... this year of college and it gave me the person who is making me so happy, because it happened at the U3A” (II) (E1).

The participation of the elderly in educational activities has been related to positive consequences, such as the reduction of psychosomatic diseases¹²⁻¹⁹, the increase of cognitive reserve^{12,30} and the consequent improvement in quality of life¹². In the same context, it was found that participation in the U3A-Unifesp/BS made it possible to review what the participants had studied in their youth, to acquire new knowledge, to express one’s own ideas, to listen and to be heard, and to put into practice the acquired learning, in an exercise of what is conventionally called lifelong education^{12,15,19,30}.

“I didn’t recycle. So with the lessons I’m having, the class project [...], with the work we’re doing about the environment, I now separate everything. You can’t mix your recyclables! I’m using it, right? And I took it more like this: Gee, I’m wrong, right?” (II) (E2).

Although the term education was not mentioned in the interviews, the use of similar terms: learning, to learn and knowledge, allied to the benefits of taking part in the U3A-Unifesp/BS were repeatedly

observed showing that the elderly recognize the relevance of education to quality of life.

“I didn’t like computers and yet I was able to learn, within what I wanted to study! To look for a recipe, handicrafts, I’m already managing it” (II) (E8).

The elderly participants also emphasized, on several occasions, the importance of social interaction in their quality of life^{2,12} both in terms of the expectations they described at the beginning and end of the academic year. Participation in the U3A- Unifesp/BS seems to have provided the elderly with social support, providing them with new opportunities for interaction, the maintenance of cognitive health and greater autonomy^{12, 30,31}.

“I had a health problem, I had to miss classes at the time, when I came back, I had a feeling, you know? That everyone noticed my absence and that I was valued, right? I felt valued because they’d noticed I wasn’t there” (II) (E7).

As for Vitality (V), the meanings provided seemed to be associated with the questions proposed by the SF-36²³. *Do you feel full of pep? Do you have a lot of energy? Do you feel worn out? Do you feel tired?* Drawing a parallel between the Vitality (V) domain and the quality of life assessments in the interviews at the beginning of the academic year, the quality of life evaluation of the Zona Noroeste group was already predominantly positive and by the end it had undergone very few changes. In the Silva Jardim group, the assessment of quality of life at the beginning of the academic year displayed a variety of evaluations. By the end of the year, however, it was predominantly positive, depicting a shift similar to that of the Vitality domain (V/V2) in this group. Relevant changes in health conditions were not mentioned, and non-U3A- Unifesp/BS associations that could explain this change were excluded, such as adopting new physical activities or new social engagements, which often contribute to the maintenance of physical and mental well-being in old age and help to keep loneliness and depression at bay^{12,27,32}.

“Discouragement, depression, disbelief [...] I did not believe my husband had died. And once I came to the U3A, I got better again. I came back to life!” (II) (E11).

Another aspect is the socioeconomic classification, identified by the application of the socioeconomic questionnaire²⁴. The Silva Jardim group was categorized as B, while the Zona Noroeste group as C (60.57 ± 10.41 x 46.20 ± 8.29 $p=0.015$). The total sample was also categorized as class C (57.17 ± 10.01). Regarding social class, it can be suggested that a lower socioeconomic status does not necessarily imply a worse perception of domains related to aspects of quality of life and vice-versa, as it is impossible to restrict this concept to a single element, and several factors can contribute to a better or worse quality of life³³.

The fact that the group characterized as class C evaluated their quality of life as predominantly positive from the beginning of the academic year, in contrast to the group characterized as class B, can be interpreted by a series of factors, among which are the need to manage daily problems without the help of others; a more frequent interrelationship with younger members of the family, who depend on the help of the elderly person for everyday situations, and finally the social condition itself, which may favor valuing events considered insignificant by financially more fortunate individuals.

Besides pointing out the importance of interacting socially and making new friends^{2,12} the interviewees reported that they felt capable and well-received. One pointed out the fact that she did not suffer any form of discrimination.

“The affection, the affection the teachers displayed towards us, without any differences... in social status or class or race. When I came here, through the invitation of a friend, I felt good, I was welcomed; and I believe I didn't, I had no difficulty, none. Especially because I felt inferior to people due to my social standard, you know? And I felt very happy, because there weren't any differences here. None!” (I) (E5).

It should be emphasized that reports of this nature indicate individuals victimized by the prejudice associated with their socioeconomic status and by the notion that public policies are the result of favors and charitable attitudes, rather than legitimate rights. It is impossible to think about quality of life

without considering the inherent aspects of survival, such as low income, precarious housing and lack of food, among others factors that frequently cause discouragement and indignity^{3,9}.

Participation in the U3A-Unifesp/BS seems to have encouraged considerations on the elements that affect personal satisfaction and consequently quality of life^{3,12,27}. At the end of the academic year, the reports of the interviewees did not merely describe the minimum or the general aspects of the concept, but were incisive and detailed, and referred to other significant components. The testimonies, in spite of the difficulties inherent to age and social conditions and taking into consideration the significant experiences and histories of the interviewees, support the qualitative data of this study, which suggests that participation in U3A-Unifesp/BS improved the quality of life of participants^{2,12,27}. Additionally, the interviewees also described education and especially social interaction as the most relevant elements:

“And interacting with other people as well. You can't just stay home alone. That is very bad. I think it isn't quality of life. Because the moment you get lonely, you don't talk to anyone. Or you shrink inside yourself. So interacting with other people is very important. I think that human beings aren't supposed to live alone” (II) (E16).

In the present study qualitative and quantitative approaches were adopted to provide a more comprehensive picture of the perceptions of elderly persons attending the groups of the U3A-Unifesp/BS. Neither approach was found to be better or more correct, nor was there direct opposition among the presupposed subjectivity and objectivity in the two methodologies³⁴. However, the prevalence of one of the types of research and the deficiencies of both are commonly observed, while their interweaving provides a broader and deeper insight into the subject of this study³⁵.

In this context, it is necessary to mention the limitations of this research, namely the absence of a control group for data comparison, as the study was carried out entirely in the Baixada Santista *campus*. It should also be remembered that the fact that some elderly persons left the study, as was their right in

accordance with the Free and Informed Consent Form, contributed to a reduction in the previously established number of participants, which became a limitation for other inferences of the quantitative analyzes.

CONCLUSION

The results obtained by the quantitative and qualitative instruments in the present study produced complementary data. The interviews revealed a perception of improvement in the quality of life of the participants, even though no changes were observed in most of the areas investigated by the SF-36. It seems that the evaluation of improvement in the quality of life of the participants was not due to the sum of the aspects in the quantitative instrument, but to one aspect in particular, namely vitality. From a qualitative point of view, education and social interaction were also emphasized, and

an association between the results of the two instruments is therefore suggested.

The present study sought to draw a parallel between the insertion of the elderly in the two groups of the University of the Third Age- Unifesp/BS and the perception of changes in their quality of life based on their testimonies and evaluations. The elderly characterized their quality of life as having changed positively. It can therefore be affirmed that the University of the Third Age at the Federal University of São Paulo, Baixada Santista encouraged the perception of changes in the quality of life of the participants in the groups.

The results of the study emphasize the importance of creating public policies aimed at implementing other initiatives such as Universities of the Third Age, to improve the quality of life of the elderly by fostering social interaction and continuous learning and helping leverage self-esteem, inclusion and new life goals.

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