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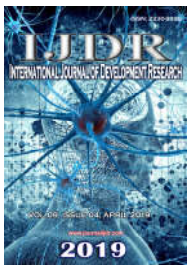

REVIEW ARTICLE OPEN ACCESS

QUALITY OF LIFE AND PSYCHOSOCIAL PROTECTION FACTORS OF ELDERLY RESIDENTS IN THE INTERIOR OF SÃO PAULO: AN EPIDEMIOLOGICAL STUDY

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ABSTRACT

Demographic and epidemiological changes lead us to reflect on what provides quality of life in old age. Objective: To evaluate the quality of life of elderly residents in a small municipality in the interior of the State of São Paulo. Methods: This was a cross-sectional census study in which 322 elderly people from the community were interviewed. The WHOQoL-BREF and WHOQoL-OLD quality of life questionnaires were applied and socio-demographic data were collected from the study subjects. Results: The following characteristics predominated: female gender (61.8%), marital status (65.53%), elementary schooling (77.95%), participation and attendance in clubs and associations were reported by 75 and 78%. Concerning monthly wage income, higher incomes meant higher scores on both instruments. In the evaluation of the quality of life through the WHOQoL-BREF, the highest score was in the psychological domain and the lowest in the physical domain. In the WHOQoL-OLD application, the death and dying domain presented the highest score. Conclusion: Researching the quality of life in old age implies evaluating variables that make up the elderly individual's perception of their position in life, encompassing situational, social, cultural, historical and individual aspects. The predominant demographic characteristics of elderly people studied pointed to the feminization of old age in the elderly group of the community. It was observed that there is predominance of married elderly people, with a fundamental level of schooling, retirees, with monthly income of a minimum wage.

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INTRODUCTION

Aging is no longer a privilege of the few, it is a worldwide phenomenon. Population aging has been increasing in recent decades in developing countries, such as Brazil, where the elderly represent 13.7% of the total population (Gil, 2019). This phenomenon generates direct changes for society, for the subjects and for the public health service (Gil, 2019 and Jahn, 2019). With the worldwide expansion of demographic and epidemiological changes, the need for and interest in researching the quality of life (QoL) of the elderly has increased throughout the scientific community, in order to know the factors influencing quality aging and to have subsidies for the establishment of goals and policies that provide well-being in old age (Lok, 2017).

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In Brazil, the Ministry of Health included elderly health as a priority item on the agenda to ensure comprehensive care for this portion of the population, emphasizing the importance of healthy and active aging through the National Elderly Policy (Gil, 2019). According to Neri *et al*. (2009), aging is described as a sequence of predictable natural changes, with organic and psychosocial repercussions that occur over time. However, this experience occurs in a heterogeneous way, since it can occur differently for individuals living in different historical, social and cultural contexts. Several factors contribute to the development of conflicts and crises during the aging process, among them chronic diseases that deteriorate health, organic and self-image modifications, widowhood, the death of friends and relatives, lack of favorable social roles and financial difficulties, especially those related to retirement benefits. All these factors contribute to the elderly have their self-esteem affected generating conflicts in the face of the changes they experience. To face this new phase, the elderly need to draw on available resources both internal and external. Active aging,

which currently guides the World Health Organization (WHO) program, is defined as "the process of optimizing opportunities for health, participation, and safety in order to enhance the quality of life as people age." (Jing, 2016; Veras, 1994; Brasil, 2012 and Mendes, 2005). In the view of formulators, this concept, adopted since the 1990s, is more inclusive than healthy aging, considering that its foundation is the sense of participation and not only the ability to remain physically active or inserted in the workforce (Brasil, 1996; Brasil, 2013; Morais, 2009 and Assis, 2014). Participation is thought of in a comprehensive sense, in the family, in social, economic, civic, cultural and spiritual matters, and as a possibility also of those elderly people with illness or incapacity. In this sense, it proposes a life course approach to active aging, or interventions that create a supportive environment and favor healthy choices at all stages of life, as well as the possibility of preventing or delaying the emergence of non-communicable diseases, the main causes of morbidity, disability and mortality of elderly people worldwide impacting quality of life (Assis, 2002). There is not only a definition for the quality of life construct (QoL), since it derives from many points of view, which vary in different times, in different countries, cultures, social positions and from individual to individual, in addition to being influenced by the state of mind and mood of the same person. Although there is no consensus on the concept, the World Health Organization through a group of experts from different cultures proposed three fundamental aspects of the construct quality of life: subjectivity, multidimensionality, and bipolarity (inclusion of positive and negative dimensions).

The development of these elements led to the WHOQoL Group's definition of quality of life as: "The individual's perception of his or her position in life, in the context of the culture and value system in which he lives and in relation to his goals, expectations, concerns ('...') (Assis, 2002). Based on the need and importance of measuring QoL and the lack of evaluation tools in a cross-cultural context, WHO and the WHOQoL group developed the generic QoL assessment instrument: QHOQoL-100, the abbreviated version of the instrument, the WHOQoL-BREF the WHOQoL-OLD, specific for the population over 60 years of age (Fleck, 2000 and Fleck, 2000). Studies on quality of life in aging began in the 1940s with the Chicago school. For researchers to age well it encompasses being satisfied with the current state of their life and has plans for the future, which directed the studies of that area to the perception of satisfaction. In 1960 the Kansas City Studies of adult life investigated the effects of participation in activities on successful aging. More current studies investigate the functions of social networks in aging and show that they are capable of reducing negative emotional impacts in old age (Chachamovich, 2011).

The WHOQoL-OLD project started with the aim of investigating which issues influenced the quality of life of the elderly and that was not being studied by the existing questionnaires. The WHOQoL-OLD was therefore developed cross-culturally as an instrument of additional use to the WHOQoL-BREF when the target population is elderly (Fleck, 2006). Due to the greater number of diseases and disabilities, the elderly require more attention from the health services, but the health of the elderly in Brazil is still inefficient and costly. In order to make health programs more efficient and increase their adherence, it would be necessary to prioritize the maintenance of the functional capacity of the elderly with preventive health care and education with skilled, integral and multidimensional care, with a focus on adding quality to the additional years of life, taking into account functional capacity, autonomy, participation and social performance, self-care and self-satisfaction (Geib, 2012 and Pereira, 2008). Given these assumptions, this study sought to evaluate the quality of life and to characterize demographic and socioeconomically elderly people living in a small municipality in the interior of the State of São Paulo.

MATERIALS AND METHODS

Study Design and Participants: This is a cross-sectional, epidemiological study with a quantitative approach to the quality of life of the elderly in the community of a small municipality in the interior of the State of São Paulo. The literature review seeks to understand the social, economic, and health in which these individuals are inserted. The study was conducted in a small municipality in the interior of the state of São Paulo, General Salgado, located 548 kilometers from the capital, with an economy based on agriculture and livestock, essentially sugar-alcohol. The population of the municipality counts on 10.669 people, of which 1637 are elderly, that is, 15.3% are 60 years old or more. The number of participants was determined by the sample calculation of the elderly population residing in the municipality based on the population N, respecting the level of significance of 0.05 or 5%. Being the population N of 1,637 elderly, replacing this value in the formula, the sample N was 322 people. The inclusion criteria used in the research were 60 years of age or older, with preserved communication capacity, living in the municipality studied, who did not present mental problems or disease that affected the cognitive aspects and that consented to participate in the research. For data collection, three instruments were used: a socio-demographic characterization questionnaire and two quality-of-life assessment instruments: the WHOQOL-BREF and WHOQOL-OLD, and the associated use of the two instruments follows WHO recommendations. Data collection was performed by a team trained by the researcher emphasizing the purpose of the interviews, the way the questionnaire was applied and the importance of letting the respondent respond without interference in the answers. Participants were recruited in the spaces of social interaction of the elderly of the municipality, among them: municipal hall of the third age, parochial hall, gymnasium of sports, day center, square of the matrix. In some cases the elders scheduled day and time, according to their convenience and the interviews were carried out at home. Among the elderly, there was no refusal to participate in the study. The objectives of the research were explained, the function of the ICF, required the signature of the same and the data were collected individually and privately. Data were collected between October 2013 and February 2014.

Statistical Analysis: The quantitative analysis regarding the comparison of the domains scores, restricting the situation of the elderly, was performed using the Variance Analysis test and Tukey post-hoc test when $p < 0.05$. The software used for analysis was Minitab 17 (Minitab Inc.). After performing the univariate analysis, knowing that the studied variables influenced QV (univariate), it was not necessary to perform the multivariate analysis, since this would confirm the results obtained with the univariate analysis.

Ethics: This research was approved by the Research Ethics Committee of the Faculty of Medical Sciences of the State

University of Campinas (UNICAMP) with an opinion number 409,349 of September 28, 2013, following Resolution 466/12.

RESULTS

The findings obtained through the demographic characterization questionnaire revealed the expected feminization of old age in the community investigated, which represented 61.8% of the sample. The age of the elderly (n = 322) ranged from 60 to 93 years, with an average of 70.29 years with a standard deviation of ± 7.24 years and a median of 69 years. The predominant schooling in 77.95% of the interviewees was the fundamental level (even if incomplete). Some elderly people still had a middle and upper course (15.22%). The majority of the sample studied was married (65.53%) and comprised of retirees (82.30%). The monthly income of up to one minimum wage was reported by 69.88% of the elderly. Regarding the housing situation, 91.93% of the participants lived in their own homes. Regarding social participation and attendance at community clubs and associations, 75.78% of the elderly reported active participation, although the practice of some physical activity was reported by only 26.71% of respondents. Regarding the health conditions, the presence of chronic diseases was observed in 53.42%, who reported one or more diseases, the most frequent being hypertension and diabetes mellitus. The use of the public health network (Health Unic System) was mentioned by 69.87% of the elderly.

Among the domains of quality of life evaluated by the WHOQoL-BREF, the psychological domain was the one that presented the highest score, differing in isolation from the other domains. The general, social and environmental domains did not differ significantly, however, it is valid to consider the difference between the social and physical domains, the latter having the lowest score among the domains evaluated. Thus, for the surveyed elderly the score of the psychological domain was superior in relation to the physical domain. Subsequent results refer to the quality of life domains scores according to the WHOQoL-BREF instrument (Table 1 and 2). The sex of the interviewees had a significant influence only in the psychological domain, with the men presenting higher scores in relation to the women, respectively 75.00 and 70.83 with a significance of p=0.029. Participation and attendance at clubs and associations was not significant in the domains assessed in the WHOQoL-BREF. Analysis of the correlation between domain scores and the age of the elderly did not result in significant correlations, assuming that the age group did not significantly influence the quality of life. For all domains evaluated, the elderly with the highest monthly income presented better quality of life, that is, in all cases, the elderly with a monthly income of 6 SM or more presented the highest scores for all domains evaluated. On the other hand, the elderly who earn monthly up to 1 SM were the ones that presented the lowest scores for all domains evaluated. In general, as the monthly income grows, the quality of life of the elderly also increases in all domains. In the analysis of the WHOQoL-OLD instrument, the domains of intimacy and death and death were the ones with the highest scores and the autonomy domain was the one with the lowest score. Thus, it is assumed that the elderly interviewed face difficulties in maintaining their autonomy. It was not possible to observe sex influence in the scores of the evaluated domains. Participation in clubs and associations did not significantly influence the scores of the domains evaluated. All domains except domain death and dying were influenced by the income factor. In all cases, the higher the income of the elderly, the higher the quality of life score in each of the domains evaluated. The analysis between the scores of the WHOQoL-OLD domains and the age of the elderly did not result in significant correlations.

Table 1. Distribution of the WHOQoL-BREF domains scores of the elderly interviewed according to the mean and median, General Salgado, SP, Brazil, 2014

Domains	Elderly interviewed Mean±StdDesv (Mediana)
General	64,20±16,48^{bc}(62,50)
Physicist	62,28±16,03^{c}(60,71)
Psychological	70,32±11,94^{a}(70,83)
Social	65,99±14,27^{b}(66,66)
Environment	63,21±12,98^{bc}(62,50)
p-value[1]	<0.001

[1] p-value for the Variance Analysis test (ANOVA) at p <0.05.
[2] Means with different letters in the same column differ significantly by Tukey's test (p <0.05).

Table 2. Distribution of the WHOQoL-OLD domains scores of the elderly interviewed according to the mean and median, General Salgado, SP, Brazil, 2014

Domains	Elderly interviewed (n=322)[2] Mean±Std Desv (Mediana)
Functioning of the senses	65,18±18,74 (62,50)^{b}
Autonomy	56,73±15,65 (56,25)^{c}
Death and Dying	74,22±22,68 (81,25)^{a}
Past, present and future activities	64,36±13,54 (62,50)^{b}
Social participation	62,77±14,59 (62,50)^{b}
Intimacy	72,88±15,72 (75,00)^{a}
p-value[1]	<0.001

[1] p-value for the Analysis of Variance (ANOVA) test at p <0.05.
[2] Means with different letters in the same column differ significantly by Tukey's test (p <0.05).

DISCUSSION

With the present study it was possible to know the quality of life of the elderly living in a small municipality in the interior of São Paulo and to evaluate the main aspects that influence their QoL. The socio-demographic characteristics of the study participants are consistent with the literature data regarding the prevalence of women. Women's longevity is confirmed in population pyramids of both developed and developing countries, and several factors explain this difference, among them the greater exposure of men to mortality from external causes, especially homicides, traffic accidents, and greater negligence with one's own health (Gil, 2019; Camarano, 2010 and Brasil, 2010). Among the interviewees, the predominance was the elderly married, retired, with income of up to a minimum wage following the trend of the literature, taking into account that the reference value for the benefit of retirement is a minimum wage (Jahn, 2019); Lok, 2017 and Jing , 2016). Considering that the vast majority of the elderly in the community were married, they had an important protective factor and consequently QoL, since the elderly with spouses have to share their feelings and experiences from day to day. A survey carried out in São Paulo aimed at knowing the determinants of functional capacity among the elderly revealed that elderly widowers make up the category with greater opportunity to become dependent, pointing to widowhood as a risk factor for the loss of autonomy (Rosa, 2003).

Asked about the presence of chronic diseases, 46.58% of the elderly in the community claimed to have none, contrary to the literature, where the majority of the elderly present at least one NCD. In this study, the fact that the interviewed elderly person feels good in the presence of the interviewer may have concealed the existence of diseases reflecting the large number of elderly people who reported not having CNCDs. In the present study, it was observed that 82.3% of the elderly in the community lived in co-residence. The multicentric study entitled Health, well-being and aging (SABE, 2006) revealed that co-residence represents a greater protection condition for the elderly, since in these circumstances there is a greater potential of available assistance to attend to the different demands presented by them (Maia, 2006). When the influence of sex on QOL is studied, older men presented higher scores for the psychological domain. These findings were also verified in a study with elderly people from a city of Goiás, with higher scores for psychological domain and also for the overall male subjects. According to Avis *et al*. (2004), women perceive more aging mainly because they feel less attractive, which considerably affects their self-esteem and quality of life (Silva, 2007).

As the aging process involves psychological dimensions, influenced by factors that contribute to the perception of subjective aspects that will determine the coping and quality of life of the elderly, the psychological domain contributes to the quality of life in a way that psychological alterations can interfere in the well-being of the elderly. According to the life-span perspective, which considers human development, the proportionality of gains and losses in development / aging is changed throughout life, but the most pronounced losses occur in old age and if the individual does not know how to handle the issues such losses will compromise their QoL (Baltes, 1995). In relation to the wage income, those older people who had higher monthly income had higher scores. The elderly who received the equivalent of 6 MS or more per month presented the highest scores for all domains evaluated, and only the death and dying domain (WHOQoL-OLD) was not significantly influenced by income, which allows us to infer that elderly individuals with lower income are more exposed to worse living conditions and older people with higher income tend to have a better QoL. The FIBRA study carried out with Brazilian elderly in the community found that elderly people living in places with lower GDP per capita and that reported low income and schooling accumulated larger deficits in health, cognition and well-being throughout life, possibly due to the continued deprivation of benefits and opportunities. A study carried out in Botucatu São Paulo (Jóia *et al*, 2007) revealed that satisfaction with life was associated with family comfort and, consequently, with the income of the individual. In this way, we can affirm that one of the factors of protection and that is determinant of good quality of life is the financial and family situation of the elderly (Neri, 2013; Joia, 2007 and Xavier, 2000) should be considered that the monthly income of the majority of Brazilian retirees consists of a minimum wage, which often limits the opportunities for the elderly to maintain the standard of living of the time they were working in old age.

Small towns generally offer lower living costs, and the elderly do not have a high demand for transportation to get around and perform their tasks with relative safety, allowing them to carry out activities at any time of day without depending on other people to accompany them, the The WHOQoL-BREF domains with higher scores were psychological and social, explained by the great participation of the elderly in activities in the community itself. The literature emphasizes that social participation is a strong indicator of the well-being of the elderly. It is believed that social isolation is linked to the decline of mental and physical health, depending on the conditions of life to which the individual is exposed. A study carried out at two long-term institutions, ILPI's in MG, found that people who performed leisure activities had higher scores for autonomy, past, present and future activities contributing positively to the biopsychosocial balance of the elderly (Del Duca, 2012 and Vitorino, 2013). Therefore, in the present study, it was observed that the elderly women in the community presented lower scores for the psychological domain than the men. Taking into account that man is a being of relationships, the elderly who have maintained their spaces and social relationships, engaged in activities and assets within society presented higher scores in the social domain and in the domain of past, present and future activities. With this investigation, we can see that the quality of life of the elderly living in small municipalities is strictly linked to psychosocial protection factors such as income, sex, marital status and active social participation. In this sense, the research reinforces that married elderly people, who share their day to day life with other people in active social participation, are inserted in environments of human relations with a higher quality of life than those who live isolated and restricted to their domiciliary environments.

CONCLUSION

Researching the quality of life in old age implies evaluating variables that make up the elderly individual's perception of their position in life, encompassing situational, social, cultural, historical and individual aspects. Therefore, evaluating all these aspects requires a shared and interdisciplinary effort, since actions aimed at this public require the participation of several areas of knowledge. The present study analyzed some of these variables that make up the quality of life of the elderly living in the city of General Salgado-SP. The predominant demographic characteristics of elderly people studied pointed to the feminization of old age in the elderly group of the community. It was observed that there is predominance of married elderly people, with a fundamental level of schooling, retirees, with monthly income of a minimum wage. The study also revealed that variables such as income, sex, participation in social and community activities influence the quality of life scores.

Competing interests: The authors declare that they have no competing interests.

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