# Hypertensive elderly people: assessing the quality of life

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**ABSTRACT.** The objective of the present study was to evaluate the quality of life in hypertensive elderly people assisted in the Family Health Strategy. This is a descriptive, exploratory, cross-sectional study, with quantitative approach. The participants were 544 hypertensive elderly patients. The instruments used for data collection were the sociodemographic form and the WHOQOL-BREF. Regarding the socioeconomic and demographic characteristics of the elderly participants of this study, there was prevalence of elderly women, aged 60-69 years, self-reported white, catholic religion, illiterates, coming from municipalities in the countryside of the state, married/stable union, retired, income of one minimum wage, with children, non-smokers, non-alcohol consumers. Regarding the quality of life, the highest score was obtained in the Social Relationships Domain, followed by the Psychological Domain, Physical Domain and lower score in the Environmental Domain. The results show that the elderly participants presented a good quality of life and, although they have high blood pressure levels, they seek to live as best as possible.

**Keywords:** elderly; arterial hypertension; quality of life.

## Introduction

Aging is defined as a step in the development of every human being. It is a dynamic, progressive, irreversible, natural and individual process, accompanied by increasing morphological, functional, biochemical and psychological changes, in addition to changes in social roles. It is considered a worldwide phenomenon, followed by epidemiological changes that have gradually occurred in the countries (Netto, 2016).

The indicators of population aging, according to statistical data, show that there has been a marked increase in the number of elderly people in the past millennia. According to studies pre-selected by a survey in 2013, estimates have pointed out that, until 2025, the elderly population will exceed 30 million (Dawalibi, Anacleto, Witter, Goulart & Aquino, 2013).

In Brazil, the main cause of mortality and morbidity are Noncommunicable Chronic Diseases - NCCD, which, in 2013, were the cause of approximately 72.6% of deaths. Bezerra and Veiga (2013) state that the inherent alterations of aging makes the individual more prone to developing such chronic conditions, along with lifestyle choices, such as smoking, alcohol consumption, inadequate diet, physical inactivity and genetic predisposition (Veras, 2012).

Systemic Arterial Hypertension - HAS stands out as one of the main NCCD in the elderly population, as well as the main factor of cardiovascular risk (Carvalho et al., 2012). It is considered a serious public health problem (Picon, Fuchs & Moreira, 2013). The estimates for its prevalence is approximately 65% in the Brazilian population over 60 years, and among women over 75 years, the prevalence can reach 80% (Sociedade Brasileira de Cardiologia [SBC], Sociedade Brasileira de Hipertensão [SBH], Sociedade Brasileira de Nefrologia [SBN], 2016).

One of the main determinants of morbidity and mortality associated with hypertension in this population is its action in vital organs like the heart, brain, kidneys and blood vessels (Carvalho, Siqueira, Sousa & Jardim, 2013). It is often associated with metabolic, functional and/or structural disorders of target organs, being aggravated by the presence of other risk factors, such as dyslipidemia, abdominal obesity, glucose intolerance and diabetes mellitus (Weber et al., 2014).

The clinical picture of SAH can negatively influence the biopsychosocial context of the elderly person and compromise the quality of life, due to changes in life style, as well as the drug therapy and the possible

clinical complications that can interfere with the physical, emotional capacity, social interaction, intellectual activity and activities of daily living (Tavares, Martins, Diniz, Dias, & Santos, 2011).

According to Medeiros and Moreira (2012, p. 80), the concept of "[...] quality of life in old age [...]" is multidimensional and there are several ways to be old and different patterns of aging. The decline in the Quality of Life - QOL of the elderly person is an important problem, considering dependency and family burden. The physical and mental health, social status, maintenance of interpersonal relations, satisfaction and cognitive control are important. A good QOL not only relates to the biological, psychological and social individual, but also to his/her interaction with each other and with the society, by the roles he/she develops (Ezzati & Riboli, 2013).

The understanding of the relationship between the variables that interfere in the QOL is useful to subsidize health actions and clinical conducts that minimize the impact of SAH in the life of elderly people. In this context, the objective of the present study is: to evaluate the quality of life in elderly hypertensive patients in the Family Health Strategy, in São Luís - MA.

## Material and methods

This is a descriptive, exploratory study, with cross-sectional cut and quantitative approach, developed in the period from June 2016 to July 2017 at a Family Health Unit, in the city of São Luís, Maranhão state.

According to data from the Basic Healthcare Information System, there are 2,789 elderly people enrolled in the unit chosen for the development of the research. The sample was composed of 544 elderly patients with confirmed medical diagnosis of Systemic Arterial Hypertension, participating in the HIPERDIA Program.

The HIPERDIA program aims to register and follow-up patients with arterial hypertension and/or diabetes mellitus treated in the outpatient network of the Unified Health System - UHS, allowing generating information for purchase, dispensing and distribution of medicines on a regular and systematic basis to all registered patients (HIPERDIA - Sistema de cadastramento e acompanhamento de hipertensos e diabéticos, 2002).

The sample calculation of the interviewees considered the finite population of 2,789 elderly people registered in 2016. The sample was a simple random type, considering two probabilistic levels, with the significance level ($\alpha$ = 5%) and the sampling error (d = 5%), resulting in 338 elderly. However, during the data collection, there was a larger number of interviewees.

The non-inclusion criteria were: elderly hypertensive patients with diagnoses of Alzheimer's and Parkinson's, with cognitive deficit, disoriented in time and space, with disorganized thinking.

The survey instrument consisted of two forms: the first containing closed questions about the sociodemographic characteristics of the elderly person, including the following variables: name, age, sex, self-referred color, occupation, income, schooling, place of birth, smoking, alcoholism, children. The second is the WHOQOL-BREF, which consisted of 26 questions. Its answers follow a Likert scale (from 1 to 5, and, the higher the score, the better the quality of life); the first two questions relates to general quality of life), and the other 24 comprise four areas, respectively: Physical, Psychological, Social Relationships and Environment (World Health Organization [WHO], 1998).

This instrument is an abbreviation of the WHOQUOL-100 developed by the World Health Organization, translated and validated in Brazil. The WHOQOL-BREF is self-administered; however, due to the difficulty of reading and illiteracy, common in the studied community, the researchers chose to apply the form themselves.

While approaching the elderly person, the researchers explained the goals and procedures of the research. Subsequently, in a reserved room, after the medical consultations, the questionnaires were applied.

The data were organized in Microsoft Office Excel 2013. The evaluation occurred as instructions of the WHOQOL-BREF. In this instrument, the result shall appear only as average (1 to 5) per domain and facet. Moreover, the value of Questions 3, 4, 26 (1 = 5) (2 = 4) (3 = 3) (4 = 2) (5 = 1) requires recoding. The statistical analysis considered absolute numbers and percentages. The results were presented in tables built in the Software Origin Pro 8.5.

The Research Ethics Committee/University Hospital approved this research - UFMA of the aforementioned city, under opinion n. 907/20, according to Resolution 466/12 of the National Health Council (NHC).

# Results

Regarding socioeconomic and demographic characteristics of the elderly participants, there is prevalence of elderly women (77.94%), aged 60-69 years (36.76%), white self-referred color (83.84%), catholic religion (87.5%), illiterate (38.97%), coming from cities in the countryside of the state (49.26%), married/stable union (41.91%), retiree (89.71%), income of 1 minimum wage (55.15%), with children (97.79%), non-smokers (91.18%), non-alcohol consumers (97.79%), as described in Tables 1 and 2.

**Table 1.** Socioeconomic and demographic profile of elderly hypertensive patients attended to in a Family Health Unit. São Luís – MA, Brazil, 2016.

| Variable | N | % |
|---|---|---|
| Sex | | |
| Female | 424 | 77.94 |
| Male | 120 | 22.06 |
| Age group | | |
| 60 - 64 years | 200 | 36.76 |
| 65 - 69 years | 88 | 15.44 |
| 70-74 years | 88 | 16.18 |
| 75-79 years | 92 | 16.91 |
| > = 80 ⩾ years | 76 | 14.71 |
| Self-reported color | | |
| White | 236 | 43.38 |
| Black | 148 | 27.21 |
| Yellow | 16 | 2.21 |
| *Pardo* | 144 | 27.2 |
| Religion | | |
| Catholic | 476 | 87.5 |
| Protestant | 68 | 12.5 |
| Education | | |
| Illiterate | 212 | 38.97 |
| Incomplete elementary school | 188 | 34.56 |
| Complete elementary school | 16 | 2.94 |
| Incomplete high school | 68 | 12.5 |
| Incomplete college | 36 | 6.62 |
| Complete college | 24 | 4.41 |
| Place of birth | | |
| Capital of the state | 120 | 22.06 |
| Other cities of the state | 268 | 49.26 |
| Other cities of other states | 156 | 28.68 |
| Total | 544 | 100 |

Source: Prepared by the author

In relation to the evaluation of Quality of Life, as for question 1, which evaluates the own satisfaction of participants in relation to their QOL, 76% of the elderly people evaluated it as good (mean=3.8). In question 2, which measured the satisfaction of individuals in relation to their own health, 66.9% declared satisfied with their health.

The QOL measured by the WHOQOL-BREF obtained higher scores in the Social relationships Domain (76.86%) and lower scores in the Environment Domain (62, 67%), according to Table 3.

In relation to the Physical domain, the facets with higher scores of satisfaction were intermediate: ability to perform activities in daily life (70.44%), mobility (69.55%), ability to work (69.26%), and with lower score, energy and fatigue (52.2%) dissatisfaction or need to improve.

Regarding the Psychological domain, the facets obtained scores from highest to lowest degree of satisfaction, respectively: spirituality/religion/belief (85.44%) of satisfied; with intermediate satisfaction: negative feelings (75.29%); thinking, learning, memory and concentration (74.56%); body image and appearance (68.97%) and self-esteem (63.53%); positive feelings (56.91%) of necessary improvement. In relation to the Social Relationships Domain with scores in the facets with regular satisfaction we have: personal relationships (78.53%); sexual activity (76.47%); social support (75.59%).

**Table 2.** Socioeconomic and demographic profile of elderly hypertensive patients attended to in a Family Health Unit. São Luís – MA, Brazil, 2016.

| Variable | N | % |
|---|---|---|
| Marital Status | | |
| Married / Stable Union | 228 | 41.91 |
| Single | 76 | 13.97 |
| Separated/Divorced | 44 | 8.09 |
| Widow(er) | 196 | 36.03 |
| Occupation | | |
| Retiree | 488 | 89.71 |
| Away from labor activities due to disease | 56 | 10.29 |
| Income | | |
| <1 wage | 48 | 8.82 |
| 1 wage | 300 | 55.15 |
| Between 2 and 3 wages | 196 | 36.03 |
| Children | | |
| Yes | 532 | 97.79 |
| No | 12 | 2.21 |
| Smoking | | |
| Yes | 48 | 8.82 |
| No | 496 | 91.18 |
| Alcohol consumption | | |
| Yes | 12 | 2.21 |
| No | 532 | 97.79 |
| Total | 544 | 100 |

Source: Prepared by the author

**Table 3.** Distribution of scores of Quality of Life, WHOQOL-BREF, of elderly hypertensive patients attended to in a Family Health Unit. São Luís – MA, Brazil, 2016.

| WHOQOL-BREF | Absolute Value | Percentage | Standard Deviation |
|---|---|---|---|
| Physical Domain | 3.29 | 65.78% | ± 0.31 |
| Psychological Domain | 3.54 | 70.78 | ±0.50 |
| Social Domain | 3.84 | 76.86% | ±0.075 |
| Environment Domain | 3.13 | 62.67% | ±0.43 |
| Q1* | 3.80 | 76.00% | ±0.06 |
| Q2** | 3.34 | 66.90% | ±0.41 |

*Question 1 of the instrument WHOQOL-BREF, which measures participants' own satisfaction in relation to their Quality of Life.
**Question 2 of the instrument WHOQOL-BREF, which measures participants' satisfaction in relation to their health.
Source: Prepared by the author

In the Environment Domain, we can observe the scores of facets, in decreasing order of classification. With regular satisfaction, we have: conditions of place of residence (76.66%); physical security and protection (70.58%); physical environment (66.47%); transport (61.32%); financial resources (60.44%). With dissatisfaction or need to improve: health and social care: availability and quality (59.86%); environment at home (57.64%); opportunities to acquire new information and skills (48.82%).

## Discussion

The prevalence of females among elderly people with hypertension can be justified by the increased survival of this sex in relation to males, similar to that observed for the population of elderly Brazilians (Instituto Brasileiro de Geografia e Estatística [IBGE], 2013a), in which one of the most striking characteristics is that most of the population consist of females (55.7%). Furthermore, women seek health services with greater frequency (Zaitune, Barros, Cézar, Carandina & Goldbaum, 2006). This result was similar to the study on the quality of life in elderly hypertensive patients held in Rio de Janeiro (Tavares et al., 2011), in which 66, 5% of the elderly, were female. Also corroborating a research carried out in a city in the countryside of Minas Gerais (Andrade et al., 2014) that found a prevalence of 61.7% of females.

Regarding age, this predominance of the age group 60-64 years equates to a study developed by Tavares et al. (2011), with 42.3% prevalence in this age group, and differs from the data provided by the IBGE (2013a), which affirm that the largest proportion was among the elderly people aged 75 years or more (55%),

followed by 52.7% among elderly people from 65-69 years and 44.4% between 60-64 years. This shows the need for further monitoring of these age groups highlighted.

The prevalence of white color resembles the data obtained from the country's population residing in the household (Instituto Brasileiro de Geografia e Estatística [IBGE], 2013b), affirming that 54.4% of elderly people claim to be white. Although studies claim that the Afro-Brazilian population is more susceptible to suffer from hypertension, one defends the theory that the population in its essence is mixed. It is important to emphasize the fact that the color is self-reported, i.e., the perception that the elderly person has of his/her own skin color, in which there may not be a correspondence between the real skin color and the one cited by the elderly person.

In concordance with the preeminence of Catholicism, the work of Andrade et al. (2014) was similar, which shows that 68.4% of elderly hypertensive patients surveyed were Catholics. In their research, Serbim and Figueiredo (2011) show that 60% of those surveyed were Catholics. The Brazilian colonization brought Catholicism as the main religion. In its essence, the human faith influences the capacity to deal with injuries and contributes to social relation, by the presence in the spaces for religious practices.

The illiteracy rate found may be justified by the difficult access to education existing in previous decades, exclusivity of the most favored economically (Schwartzman, 2005). In primary health care, privileged space for educational activities, professionals must consider such specificity and propose different strategies for effective communication on guidance on the care (Tavares et al., 2011). These results are similar to those obtained by means of a health survey with the Brazilian population. Nevertheless, they differ from the research of Andrade et al. (2014), in which 54.1% of elderly hypertensive patients are literate and 46.9 percent are illiterate.

The largest number of elderly people from other cities in the state may be related to the increasing number of migration from the countryside to the capital in recent years, seeking better life conditions. In this study, 97.79% of the elderly participants have children, similar to the study by Tavares et al. (2011), in which 92.9% have children, who are their caregivers, increasing their support network, because they have an observer of their routines and an immediate support in cases of emergency.

Regarding marital status, this finding corroborates a study in Campinas (Zaitune et al., 2006) demonstrating that 52.8% of elderly hypertensive patients are married or have a stable union. It is also similar to a study conducted in Minas Gerais (Andrade et al., 2014), in which 59.2% of hypertensive elderly people are married/in stable union. The lack of a companion often has negative influence, due to the lack of 'vigilance' in the domestic environment, which complicates the treatment and psychological conditions.

The dominance of retirement corroborates a study carried out in Porto Alegre (Serbim & Figueiredo, 2011), which showed that 66.7% of the elderly were retired. This prevalence can also be confirmed as results of other Brazilians (IBGE, 2013b), in which the prevalence of elderly retirees corresponds to 59.1%. Regarding the income, the majority stated 1 minimum wage (55.15%). The research by Tavares et al. (2011) shows that the highest percentage of elderly hypertensive patients (57.2%) has as monthly income of 1 minimum wage. People with lower incomes have a higher propensity to increased blood pressure from the stress and economic difficulties.

Being a non-smoker mays result from the need for changes in life habits, with the adoption of a healthier lifestyle. Data from IBGE in 2013 show low rates of tobacco use among elderly people aged 60 years or more (13.3%) (IBGE, 2013a). This result differs from that obtained by Zaitune et al. (2006), who identified that 53.2% of the elderly people do not smoke. The non-consumption of alcohol can also be associated with the need to change life habits for the treatment of hypertension.

As regards the results obtained about the assessment of QOL and satisfaction with their health, these being favorable to the elderly, they corroborate the study by Tavares et al. (2011) who reported that most of the elderly (65.9%) self-assessed their QOL as good and 61% were satisfied with their own health. Satisfaction with one's own health can contribute significantly to the coping with this health condition. However, they differ from a study in Triângulo Mineiro, in Minas Gerais (Miranzi, Ferreira, Iwamoto, Pereira, & Miranzi, 2008) regarding question 1, which evaluates participants' own satisfaction in relation to their quality of life, with 46.67% evaluating as intermediary and 36.67% as good. We can justify the difference in the studies due to the research site, considering that, in our region, the health services might not be as accessible as the location of another study. Nonetheless, question 2, which measures the satisfaction of individuals in relation to their own health, approached with the health satisfaction, 33.3%.

The more positive evaluation of the quality of life among elderly people may result from strategies developed for emotional compensation even when affected by chronic diseases, because they have greater capacity to deal with losses when compared to younger individuals. In cases of chronic diseases such as hypertension, it is important to maintain the psychological resilience of the elderly person for better adaptation in the face of changes in life style, a prolonged treatment and, consequently, smaller decline in quality of life (Arbex & Almeida, 2009; Wikman & Wardle, 2011).

In what concerns the health satisfaction, 40% of the elderly participants reported being satisfied. Although they presented a chronic condition, the elderly participants considered their assessment on the QOL and health satisfaction as good. According to a study conducted in São Paulo (Arbex & Almeida, 2009), this can result from the fact that elderly people select targets that are most relevant to their goals. These authors mention in their study that, as age advances, individuals tend to focus more on the emotional aspects (mental health) than on physical aspects (presence of diseases) of their health. With this, the less the elderly consider hypertension a serious disease that interfere negatively in their well-being, the better they assess their quality of life and health.

The QOL measured by the WHOQOL-BREF obtained higher scores in the Social Relationships Domain (76.86%) and lower scores in the Environment Domain (62, 67%). These data resemble the research by Tavares et al. (2011), in which the highest score was also in the Social Relationships Domain, but differ in the lowest one identified with the Physical Domain. They also corroborate the study conducted by Souza, Melo, Reis and Lima (2016), in which the highest score was in the Social Relationships Domain (79.92%).

The highest scores in Social Relationships Domain can be explained by the capacity of social interaction of elderly people who have an active social life, attending church events, activities of health promotion and leisure, living with family and friends, thus preserving their autonomy and independence in social activities. Together with the presence of a satisfactory support network, whether composed of children, spouses, family members or friends.

The lower scores in the Environment Domain can be explained by the inadequate conditions of the environment where elderly hypertensive patients live, lack of adaptation of the place of residence to the needs of the elderly person, physical conditions of the environment that bother the elderly person, such as noise, pollution, lack of security. Transport conditions, because most elderly people use public transportation as their primary means of mobility, with reports of locomotion difficulties and especially complaints related to the public transport service itself. The financial resources also exert an influence on this score because most of the elderly participants have income of 1 minimum wage, which is often insufficient to meet their needs.

Regarding QOL, in relation to the percentage of zero to 100, the values for the Social Relationships, Physical, Psychological and Environment areas presented values above 50. These values express a positive perception of the QOL. For the elderly people, QOL and health are not based only on the absence of diseases, and seem to be more related to psychological well-being, because this interferes with the emotions (Souza et al., 2016).

Although the elderly participants have presented a chronic health condition, in this case, hypertension, they seek to be active in their lives, exercising autonomy with their daily life activities, attending social interaction, and especially not being upset by the particularities of the necessary changes of life style. This generates a psychological well-being and support for coping of challenges, even of the advance of age, thus contributing to a positive evaluation of the quality of life.

## Conclusion

This study allowed concluding that most elderly hypertensive patients are female, aged between 60-64 years, white self-reported color, Catholics, illiterate, from cities in the countryside of Maranhão, residents in the capital of the state, married or in a stable union, retired, with an income of 1 minimum wage, with children, non-users of tobacco and alcoholic drinks.

The evaluation of the quality of life was regular among the interviewees in most measured aspects. The facets that most cooperated with the regular-good assessment were Personal Relations (in the Social Relationships domain); Ability to perform activities in their routine, Mobility, (in the Physical domain); Spirituality/Religion/Belief, (in the Psychological domain), and Conditions of place of residence (in the Environment domain). The evaluation of the elderly people of their own quality of life and health conditions stands out, with the majority satisfied.

From this, one can observe the influence of a good relationship with relatives and friends, their social interaction in religious groups, groups of occupational therapy and active participation in society, as well as their independence and autonomy in daily activities, contributing, along with their satisfactory self-perception about their health, to a positive assessment of their quality of life. Moreover, although they have presented a chronic condition, the elderly hypertensive patients participating in the study did not allow to be limited and seek to live in the best possible way even with their evidenced characteristics.

Broadening the focus of attention to the elderly person is important, especially elderly hypertensive patients, taking into account their life and health conditions, establishing strategies that can contribute to the coping of this clinical condition and consequently fostering a healthier aging and an ideal quality of life.

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