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Elderly individuals in primary health care: Quality of life and associated characteristics

Idosos na atenção primária à saúde: qualidade de vida e características associadas

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Abstract

The aim of the study is to assess the quality of life of elderly individuals with hypertension and diabetes *Mellitus*. A total of 371 elderly individuals with hypertension and/or diabetes who are being treated in the public primary health care network, with a mean age of 71 years, $M = 71, 34$ ($SD = 6.848$) participated in this study. It is a quantitative-qualitative study, carried out in two stages. In the first, the quantitative data were collected using the following instruments: WHOQOL-bref, Mini Mental State Exam, and a sociodemographic questionnaire, in order to screen the second stage participants (13 elderly individuals), who corresponded to the qualitative strategy, using the focal group technique. The results showed that the elderly individuals without hypertension/diabetes had higher quality of life mean values. Those affected by both diseases presented the worst 'physical' domain mean values. Qualitative data indicate the 'social' and the 'psychological' domains as the most important ones, also revealing the centrality of the disease in their reports.

Keywords: Diabetes *Mellitus*; Elderly; Hypertension; Primary Health Care; Quality of life.

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Resumo

O objetivo do estudo é avaliar a qualidade de vida de idosos portadores de hipertensão arterial e diabetes Mellitus. Participaram 371 idosos portadores de hipertensão e/ou diabetes acompanhados na atenção primária à saúde, com média de idade de 71 anos $M = 71$, 34 ($DP = 6,848$). Trata-se de um estudo de abordagem quanti-qualitativa, realizado em duas etapas. Na primeira, os dados quantitativos foram coletados por instrumentos (WHOQOL-bref; Mini Exame do Estado Mental; questionário sociodemográfico) para rastreio dos participantes da segunda etapa (13 idosos), que correspondeu à estratégia qualitativa, realizada através da técnica de grupo focal. Os resultados revelam que idosos sem hipertensão/diabetes apresentaram maiores médias dos domínios da qualidade de vida. Os acometidos pelas duas enfermidades apresentam as piores médias no domínio 'físico'. Os dados qualitativos indicam o domínio 'social' e o 'psicológico' como os mais importantes, como também revelam a centralidade da doença nos discursos dos participantes.

Palavras-chave: Diabetes Mellitus; Idosos; Hipertensão; Atenção primária à saúde; Qualidade de vida.

The Brazilian population is growing old, and according to the projections, the number of people over 65 years-old will increase from the current 9.2% to 25.5% of the total population by 2060, that is, one in four Brazilians will be considered an elderly individual, according to the Instituto Brasileiro de Geografia e Estatística (IBGE, Brazilian Institute of Geography and Statistics) (2018). It is therefore necessary to understand the aging process in order to strengthen the health care directed to this population in all the areas that the new demographic reality demands, and those that will have an even higher demand over the years.

According to Souza, Melo, Reis, and Lima (2016), this increase in the elderly population is proportional to the increase in the number of studies that discuss issues related to the aging process. For the authors, it is necessary to invest in research that addresses the impact of chronic degenerative diseases on the Quality of Life (QoL) of the elderly population. Firstly, considering its complexity, since they are diseases that increasingly affect this population group, and secondly, because quality of life is an excellent predictor for aging.

The conceptualization adopted by the World Health Organization, from an international and cross-cultural perspective, defines QoL as: "the individual's perception of his/her position in life, in the context of his/her culture and in the value system in which he/she lives and in relation to his/her expectations, standards and concerns" (World Health Organization, 1995, p.403), this is a widely accepted definition in the academia. For Vilhena et al. (2016), the QoL is related to all aspects of the person's well-being (physical, psychological and social), and includes the decisions and the factors associated with the health-disease process, which are multifactorial and complex.

Based on what the psychological theories of aging propose, the quality of life of elderly individuals depends on the preservation of the 'self' and the maintenance of goals throughout life. In addition, it involves personal values, previous experiences, adaptability to change, independence, autonomy, leisure activities, health, and social relationships (Dawalibi, Anacleto, Witter, Gular, & Aquino, 2013).

One perspective has gained consistency in studies on quality of life and old age in psychology. Lawton's model (1983) proposes that the assessment of quality of life in old age is based on four overlapping and interrelated dimensions: environmental conditions, behavioral competence, perceived quality of life and subjective or psychological well-being, all of which depend on the functionality of the elderly individual. In a complementary way, Neri (2003) argues that the concept of quality of life in old age has a direct association with the existence of environmental conditions that allow the elderly individual to perform adaptive behaviors, with perceived quality of life and also with a sense of self-efficacy. The subjective assessment that each individual makes about their functioning is the primary content of perceived quality of life.

For Neri (2007), quality of life is related to "global satisfaction and referenced to domains", which are understood by elderly individuals from their own positive and negative affects, experienced throughout life and in the aging process, and formed by the interactions of the previous and experienced variables

during this phase. According to Veloso (2015), the factors that may interfere with QoL are characterized by socioeconomic risks, among them: poverty, social exclusion, lower educational levels, and lower work positions; biological: somatic diseases, sensory deficits, depression, chronic pain, functional disability; self-regulation mechanisms, such as self-concept, self-esteem, self-assessment, self-efficacy, sense of control, coping strategies, selection strategies, optimization and compensation, and sense of psychological adjustment; and criteria factors - subjective well-being, which includes overall satisfaction with life, satisfaction referenced to positive and negative domains and affects.

Considering the multiple and subjective aspect of this concept, the objective of the study is to assess the Quality of Life (QoL) and the associated characteristics of elderly patients with Systemic Arterial Hypertension (SAH) and diabetes *Mellitus* (DM), which are followed up in Primary Health Care (PHC) units of a city in the countryside of the state of *Paraíba*, Brazil.

Method

This is a cross-sectional exploratory, quantitative and qualitative research, with a multi-method approach, considering the sequential explanatory strategy (QUAN → quali). In this case, the quantitative data are collected and analyzed in the first step of the research, followed by the collection and analysis of the qualitative data on the initial quantitative results (Creswell, 2010).

Procedures

The data from this research came from a larger study entitled “Resilience, quality of life and frailty in the elderly individuals registered in the Basic Health Care Network” of a city in the state of *Paraíba* (Brazil) and subsidized by the *Universidade Estadual da Paraíba* (UEPB, Federal University of *Paraíba*) Pro-rectory of research - PROPesq/UEPB. For each of the six urban sanitary districts of the municipality, a unit that is part of the municipality's Public Health Care Network (PHCN) was drawn. The research instruments were applied in the Primary Health Care Unit (PHCU) or its surroundings. Participants in the quantitative strategy included the elderly who were followed up in PHCUs, who had SAH and DM and who were willing to respond to the instruments.

To participate in the qualitative strategy, two elderly individuals from each health district were invited, whose World Health Organization Quality of Life Group-Bref (WHOQOL-BREF) scale analyzes indicated high scores (mean general QoL scores higher than 50) and low scores (mean general QoL scores lesser than or equal to 50). The final sample was defined by the accessibility criterion, and the focus groups were composed of 13 elderly individuals who were invited to visit the University on the scheduled date, time and place of the meetings. Anyone who volunteered to participate would be scheduled. Two groups were formed, meeting in a single, two-hour meeting for each group.

Instruments

Among the measures used in this larger study, the WHOQOL-BREF Quality of Life Scale was applied, which assessed the participants' quality of life. Composed of 26 questions, the scale is a reduced version of the original WHOQOL-100 instrument and assesses the physical domain, such as pain, sleep, rest, and mobility; the psychological domain, which involves positive feelings and self-esteem; the domain of social relations, such as social support and sexual activity; and the environmental domain, which concerns physical

security, protection and financial resources (Fleck, 2000). In addition, a sociodemographic questionnaire was used to characterize the participants, and a specific question to investigate whether the individual has SAH and DM; and the Mini Mental State Exam (MMSE), a cognitive screening test that ensured the choice of participants with preserved cognition to obtain qualitative data.

Qualitative data were generated through the use of the focal group technique, a non-directive qualitative research technique that collects data through group interactions, when discussing a topic suggested by the researcher. It occupies, as a technique, an intermediary position between participant observation and in-depth interview (Trad, 2009).

Participants

Of the 508 elderly individuals registered in the PHCU, 371 had SAH and/or DM cases, which were followed up in the Primary Health Care and composed the sample of the quantitative strategy of this study. Of these, 24 were invited, however, only 13 elderly individuals, who comprised the qualitative strategy - aged 60 years and older, with SAH and/or DM, were divided into two focal groups.

In Group 1 (G1), seven elderly patients presented high QoL scores. Being one men and six women, between 63 and 74 years-old. Most were widowed ($n = 5$), literate ($n = 6$), catholic ($n = 6$) and residing alone ($n = 3$), or with their sons or daughters ($n = 3$). In relation to the socioeconomic profile of the group, the participants' income was arranged in three groups, considering the Brazilian minimum salary at the time of interview (BRL 937.00 / US\$283.48 – BRL to US\$ conversion in October, 2017): (3 of them have a monthly income) ≤ 1 minimum salary; (1 of them has a monthly income) ≤ 2 minimum salaries; (3 of them have a monthly income) > 3 minimum salaries/month. In Group 2 (G2), six elderly patients, with lower QoL scores, according to the WHOQOL-BREF scale analyzes, two men and four women, aged 61 to 79 years. In relation to marital status, the majority corresponded to married ($n = 2$) and divorced ($n = 2$), half of this group is illiterate ($n = 3$). Most were evangelical Christians ($n = 5$), and residing with a family member ($n = 6$). And in relation to the socioeconomic factor: (6 of them have a monthly income) ≤ 1 minimum salary/month; it is worth mentioning that the income of half of the members of this group does not even reach the equivalent to a minimum salary according to the Brazilian standards.

The names of the individuals who are referred to in some of the reports by the individuals throughout this study are fictitious to preserve their confidentiality, something agreed upon with all the participants of both groups and protected by the Informed Consent Term.

Data analysis

The data records obtained in the quantitative strategy were inserted into the IBM SPSS software. A database was constructed from which descriptive statistical analyzes were performed for the treatment of socio-demographic data and quality of life scores, and independent and dependent variable cross-checking to verify whether or not there was an association between them. To compare the mean values between the groups with and without chronic diseases (SAH and/or DM), the Kruskal-Wallis test was used. In order to correlate the variables, the Spearman correlation coefficient was calculated and the Mann Whitney U test was used to test the differences between two independent samples. The results of $p < 0.05$ were considered as significant.

The data collected through the qualitative strategy - of the focus groups - were codified through the thematic content analysis (Bardin, 2016), which is used to obtain, through systematic and objective procedures for describing the contents in the individuals' reports, indicators that enable the inference of

individual-related knowledge. The categories created were inserted along with the *corpus* of the research into the QDA Miner software, which aided the quantitative analysis of the sum of the frequencies and percentages of the category classes. Among the categories elicited by qualitative data, the category “QoL domains” was used in the present study.

The research complied with Resolution No. 466 of December 12, 2012, of the National Health Council, which regulates scientific research involving human beings (Brazil, 2013), Code No. 1.675.115 of the Research Ethics Committee.

Results and Discussion

Fifty-eight elderly individuals registered in PHCUs were interviewed, from the six health districts of the city where the research was conducted. Of these, 371 are hypertensive and/or have diabetes, with a mean

Table 1
Number of elderly individuals with hypertension and/or diabetes

		Diabetes (n)		Total
		Yes	No	
Hypertension	Yes	113	239	352
	No	19	137	156
Total		132	376	508

Note: Research Data, 2017.

age of 71 years; $M = 71, 34$ ($SD = 6.848$). Table 1 shows the number of elderly patients with SAH ($n = 352$) and DM ($n = 132$) and the number of elderly patients affected by both diseases ($n = 113$).

Tortorella, Corso, González-Chica, and Melhen (2017) argue that hypertension and type II diabetes *Mellitus* are a major challenge for health systems around the world. In Brazil the estimate is that in 2030, there will be 11.3 million people diagnosed with this disease. The authors also affirm that individuals diagnosed with DM +SAH need even more resources to be cared for, in addition to other costs associated with pain, anxiety and lower quality of life for patients and their families, in relation to those who only have one or none of these health complications.

Regarding the sociodemographic characterization of the research sample, 81.4% are women; 39.0% are married; and 32.9%, widowed individuals, which represents the most significant numbers in relation to marital status; 44.2% are illiterate; in religion, 71.0% are Catholics; 71.7% are retired, and 14.0% still carry out some kind of paid work activity. These data drew the researchers' attention: 47.2% of the elderly individuals live with their sons/daughters; 67.4% are the main responsible bread winners in the family, and 35.8% have up to one minimum salary per month as their income.

Regarding this profile, the data pointed to an important reality about the sex of the participants: the low participation of elderly men (18.6%) in the research - despite being common in studies with elderly individuals. It is important to highlight that this is a research in the primary health care network environment and as highlighted by Queiroz et al. (2018), the records of visits to men with diagnoses of health impairment are low, which does not mean that they are less sick, but that they are the ones who resist going to the doctor most and those who participate least in actions to promote health and the prevention of diseases,

since they suffer more from severe and chronic health conditions and die sooner than elderly women. This points to the need to structure the care and assistance to the specific demands of men.

The educational level of the participants of the sample was another important and noteworthy factor, since most of them are illiterate or did not complete the first year of primary education (44%), which can be considered as a low educational level. A low educational level is an indicator that can influence the individual self-care and the adherence to treatment and an important element to be considered in the elaboration of care strategies for patients with these diseases (Pozzobon, Hoerlle, & Carreno, 2014).

Regarding the person's housing, the majority (78.4%) of the elderly individuals in this study said that they did not live alone. The research by Barreto and Marcon (2014) points out that this may be an important factor in their treatment, since the family support helps in the experience of the chronic condition and in the adherence to the treatment.

Regarding the economic conditions of the sample, the number of elderly individuals who are the main bread winners in the family (67.4%) and living with a total family income smaller than a minimum salary per month (35.8%) stands out. Individuals with limited financial resources have lower access to health care, few opportunities to care for themselves and fewer resources available to live in conditions imposed by chronic diseases (Malta et al., 2015).

Regarding the quality of life results, the Kruskal-Wallis test was used to compare the mean QoL values among elderly individuals with and without chronic diseases (considering SAH and DM) and it demonstrated, as can be seen in Table 2, that the highest mean QoL value was in the physical domain - $M = 288.74$ - for elderly individuals without any of the chronic diseases, followed by those with either disease (SAH or DM),

Table 2

Distribution of WHOQOL-BREF scale domains by the presence or absence of SAH and DM

Domains	Chronic diseases	<i>n</i>	<i>M</i>
Physical	No diseases	137	288.74
	SAH or DM	258	252.80
	SAH + DM	113	216.86
	Total	508	
Psychological	No diseases	137	268.28
	SAH or DM	258	244.32
	SAH + DM	113	261.04
	Total	508	
Social	No diseases	137	249.38
	SAH or DM	258	256.98
	SAH + DM	113	255.04
	Total	508	
Environmental	No diseases	137	265.86
	SAH or DM	258	246.25
	SAH + DM	113	259.56
	Total	508	

Note: Research Data, 2017.

DM: Diabetes Mellitus; *M*: Mean; *n*: number of participants; SAH: Systemic Arterial Hypertension.

and the lowest mean value was for elderly individuals with both chronic conditions. It is worth noting that the highest mean values in the QoL domains are all related to elderly individuals without chronic diseases, followed by individuals with only one of the diseases, and finally those with both conditions, with the exception of the social and environmental domain, which had higher mean values for elderly individuals with either SAH or DM, $M = 256.98$, and $M = 259.56$, respectively.

A study by Chin, I.S. Lee, and Lee (2014) revealed the negative impacts of chronic diseases on the health of patients, which indicates that elderly individuals with more than one associated comorbidity had a worse quality of life than those with only one morbidity. The impacts were both on physical aspects, such as mobility, pain, discomfort, self-care, and on psychological ones, considering the high rates of anxiety and depression that presented negative tendencies related to the association of comorbidities. Souza et al. (2016) understand that the aging process comes from factors that reflect negative impacts in the individual's QoL, such as the presence of SAH and DM, or the association of both conditions. In this sense, these studies corroborate the results found in this research and justify the fact that the lowest mean values are those of elderly individuals with both diseases.

The data referring to the quality of life of the elderly participants of this research were presented as percentages, from 0 to 100. The higher the percentage (numbers closer to 100%) the better the person's quality of life. Table 3 illustrates the data referring to the WHOQOL-BREF scale results. As for the domains,

Table 3
QoL of elderly patients with SAH and DM: mean distribution of the WHOQOL-BREF scale domains

Domains	<i>n</i>	<i>M</i>	<i>SD</i>
Social relationships	371	72.5	16.3
Psychological	371	68.8	14.9
Physical	371	64.4	16.4
Environmental	371	57.7	14.3

Note: Research Data, 2017.

M: Mean; *SD*: Standard Deviation; *n*: number of participants.

it was observed that the participants obtained the best score in the "Social relations" domain - $M = 72.5$; in the non-psychological, $M = 68.8$; in the non-physical, $M = 64.4$; and in the environmental domain, $M = 57.7$.

Correlations were made according to the individual's sex, age, housing conditions, religion, income, current job, and educational level sociodemographic variables. The Spearman correlation coefficient showed a negative correlation between the age variable and the physical domain of QoL ($r = -0.16$; $p = 0.01$), which suggests that the older the participant, the worse the QoL assessment, or the other way around; the correlation with the income variable presented significant results in the physical ($r = 0.16$, $p = 0.02$), psychological ($r = 0.19$, $p = 0.00$) and environment ($r = 0.29$; $p = 0.00$) domains. In a study by Tavares et al. (2016), income was associated with a better overall QoL and in all domains. The authors found that in social classes whose purchasing power is low, the perception of quality of life is also low, and income is an important factor in the maintenance and perception of quality of life.

The Mann Whitney U test, used to analyze the difference between two independent samples, indicated that elderly individuals living with a partner had a better quality of life than those who did not reside with a partner. This difference was statistically significant ($p < 0.05$). For Almeida-Brasil et al. (2017), individuals without partners tend to perform poorly on structural aspects of social support networks, having less contact with family and friends, and a low frequency of being cared for and caring for other people - the lack of

a partner may, in this perspective, end up isolating the elderly person. This points to the importance of personal and intimate relationships that interfere in psychic aspects such as self-esteem, being characterized as important elements that should be considered by health professionals during the assessment and follow-up of the elderly individual (Tavares et al., 2016). The test also revealed a significant result on educational levels, with significant differences in the psychological domain for literate elderly individuals ($p = 0.04$). Educational level is an indicator that has a relation with self-esteem and can specially influence self-care and the adherence to the treatment of diseases (Pozzobon et al., 2014).

In order to complement the analyzes of the instrument, the qualitative strategy was employed in the focus group technique. The QoL reports that emerged in these focus groups were grouped in the category "Quality of life domains". The codes of the category, elaborated from the QDA Miner software, correspond to the domains from what the WHO (1995) proposes with the "WHOQOL-BREF" scale: the psychological, social, physical and environmental domains, as shown by Table 4, which presents the frequency of each domain. Data from the WHOQOL-BREF scale refer to the mean scores of each elderly individual in each

Table 4
Distribution of the "QoL domains" category codes - (QDA Miner Software, 2018)

QoL domains	Frequency / codes (n)	% / Codes	Cases (n)	% Cases
Psychological	34	15.1	2	100.0
Social relationships	26	11.6	2	100.0
Physical	22	9.8	2	100.0
Environmental	18	8.0	2	100.0

Note: Research Data, 2017.

n: number of participants; QoL: Quality of Life.

domain, and the focus group data were grouped according to the order of importance of the domains that emerged from the groups.

The data shown in the figure demonstrate that the psychological dimension is the most important one - with 34 evocations, followed by social relations, with 26; It is interesting to note that in the WHOQOL-BREF scale, the physical and the environmental domains, which presented the lowest mean values, were also the least cited by the elderly individuals.

From the content analysis of Bardin (2016), it was possible to characterize these domains in the participating groups. In this sense, as illustrated in Table 5, the physical, psychological, social and environmental domains are placed in the themes/domains column. The indicators corresponding to each theme (domain) and the characteristics related to the theme that express the group's ideas are placed at the right side of the themes/domains column. It is important to emphasize the elements that constitute these domains: (1) Physical domain (pain and discomfort, energy and fatigue, hours of sleep and rest, mobility, routine activities, dependence on medications or treatments, ability to work); (2) Psychological domain (positive feelings; thoughts, learning, memory, and concentration; self-esteem; body image and appearance; negative feelings; spirituality / religion / personal beliefs); (3) Social relations domain (interpersonal relationships; social support; sexual activity); (4) Environmental domain (physical security and protection; home environment; financial resources; health and social care: availability and quality; opportunities to acquire new information and skills; participation and opportunities of recreation/leisure activities; physical environment: pollution, noise, traffic, climate; transport). The reports that were part of these domains were grouped together.

Table 5

Description of the quality of life domains according to the reports by the participants with SAH and/or DM

Theme / domains	Indicators	Characteristics
Psychological	Positive feelings Spirituality Pleasure Coping Resources	<ul style="list-style-type: none"> • An individual with freedom, happiness, love and joy; • Being able to turn to God; • Seeking pleasure in leisure and manual activities; • Having the ability to decompress, clear the mind and forget the problems.
Social	Family Friends Social groups of elderly individuals	<ul style="list-style-type: none"> • Union, harmony and support; • Conversations, support, people of the same age group; • Spaces of participation and social interaction, with leisure and knowledge activities
Physical	Healthy lifestyle Health Diseases Ability to work	<ul style="list-style-type: none"> • Medical recommendations - healthy eating habits and physical activity, health-related difficulties; • Absence of diseases; • Different types of body aches, a person who has had strokes, heart attacks, or depression. • Job
Environmental	Physical environment Financial resources Physical security	<ul style="list-style-type: none"> • Low levels of pollution, the presence of trees, a quiet and accessible house. • Home ownership, dignity, a decent monetary income and an adequate diet; • Low crime rates.

Note: Research Data, 2017.

DM: Diabetes Mellitus; SAH: Systemic Arterial Hypertension.

Among the 371 participants, the “social relations” domain was the one that presented the highest mean value - $M = 72.5$ - among SAH and/or DM patients, according to the WHOQOL-BREF scale, which indicates that it is the domain of quality of life whose participants presented the best perception. In the focus groups, the category “QoL_domains” indicated that the social relations code was the second most frequent domain, with 26 evocations. From the reports that contemplate the QoL social relations domain, it was possible to visualize the aspects considered relevant by the participants regarding this domain. According to the Theory of Social-emotional Selectivity, proposed by Carstensen (1991) - a theory that focuses on the importance of personal development and lifelong choices, with a focus on social relationships, elderly individuals tend to move away from less rewarding relationships and increase their emotional investments in relationships that are more intimate and meaningful. According to the participants, the characteristics that configure this domain are: conversations, support, friends and the possibility of being into spaces that provide them with the opportunity social exchanges, factors which were pointed by the participants as something important to maintain their quality of life.

The function of social relationships throughout life is changed, but their importance is a constant for elderly individuals, as these relationships are fundamental for maintaining feelings of subjective well-being and social skills, as well as reassuring feelings of self-concept and emotional support, instrumental help, reducing their isolation and being important for preserving their health and improving their overall quality of life (Cachioni & Batistoni, 2012).

In addition, according to Fontes and Neri (2015), the resources provided by both family social support and community relations help the elderly individual to deal with critical events. As elderly individuals seek to maintain pleasurable activities and play social roles, they are able to adopt coping strategies, mobilizing social

support. For the authors, such coping mechanisms promote resilience, alleviating, transforming or denying the impact of adversity, which justifies the relevance attributed by the participants to the “social relations” dimension, which can be configured as a protection factor in the experience with the disease.

For Mota, Oliveira, and Batista (2017), psychological aspects influence the subjective dimension and the consequent QoL assessment. Among them, self-esteem, life satisfaction, positive and negative affects, well-being, in addition to anxiety disorders and depression, would negatively influence the QoL. The psychological domain had the second highest mean value - $M = 68.8$ - in the WHOQOL-BREF scale, and statistically significant differences were found in relation to the mean values of this domain among elderly individuals who live with their partners, who presented a higher mean value than those who do not live with a partner ($p = 0.05$). In the qualitative strategy, in the assessment of the reports collected in the focal group, the psychological domain corresponded to the resources that participants had to live well, which includes positive feelings, spirituality, pleasure and coping resources, which are important tools to maintain the aspects that are directly linked to subjectivity, which help people to undergo the aging process.

Fontes and Neri (2015) consider as psychological and social coping resources the control of external and internal stressors, with the use of self and cognition resources, and of the informal social support that elderly individuals have. These resources constitute an aid to the implications of functional disability affecting elderly individuals. Psychological factors reflect the subjective perception of the individual and the assessment of the situation and are important tools in adapting to conditions of disability, which alleviate the adversity of stressful situations, such as the condition of having a chronic disease, aid the elderly individual in the handling of the social and physical environment and are important as reserves for people to more effectively confront the critical events of life. For the Theory of Selection, Optimization and Compensation (SOC), developed by P.B. Baltes and Baltes (1990), throughout adulthood, people are increasingly aware of the gains and losses related to the aging process. The elderly select the goals that are most important to them and adopt behaviors that optimize their abilities to achieve their goals (Cachioni & Batistoni, 2012).

For the “physical” domain, the data revealed a mean value of $M = 64.4\%$, and the Spearman correlation coefficient showed a negative correlation between the age variable and this domain ($r = -0.16$, $p = 0.01$), which indicates that the older the individual, the lower their QoL assessment mean values in this domain, or the other way around. A study conducted by Bombardelli et al. (2017) indicated an association between old age and low scores in the physical domain of QoL. For the authors, old age implies an increased difficulty of maintaining balance, strength, and functional independence of the elderly individual, due to physical changes, and tends to be a negative factor for the perception of quality of life.

With the data of the qualitative strategy, it was possible to identify that the perception of the participants in this domain is related to whether or not they have SAH and/or DM, with questions related to physical health and the occurrence of the disease. In this area, the indicators correspond to a healthy lifestyle; complying with medical recommendations, diseases, and ability to work, which are characterized by healthy eating habits and physical activities/difficulties; absence of the disease; presence of pain, if the individual has had a stroke or heart attack in the past, depression, and the ability to work. Chronic complications can negatively affect the perception of the physical aspect of quality of life, both as a result of the acute and chronic complications and the demands of the treatment (Faria et al., 2013). In this sense, it is possible to observe that, for the participants of the focus groups, the aspect of the disease is a very strong factor in the physical domain.

Regarding the environmental domain, the WHOQOL-BREF scale showed the lowest mean value ($M = 57.7$) in the perception of SAH and/or DM patients. Income was a factor that correlated positively and significantly with the environmental domain ($r = 0.29$, $p = 0.00$). For Tavares et al. (2016), a low purchasing power can contribute to a poor access to health services and poorer conditions of security, housing, recreation opportunities, and the negative perception of quality of life. Analyzing the data of the focus groups, whose

economic profile corresponds to the reality of the larger sample, the reports pointed to important QoL issues from the participants' point of view, which include the indicators "physical environments", "financial resources" and "physical security", which contemplate the characteristics: an area without pollution, the presence of trees, good conditions of accessibility and low crime rates in the area, besides home ownership, dignity, a decent monetary income, and an adequate diet, that emerge in the groups and express important elements to be analyzed in the QoL studies.

According to Batistoni (2014), the relationship with the environment interferes with the subjective well-being and in the regulation of the affective states of elderly individuals, since the aging process increasingly exposes individuals to the influences of environmental conditions. The author, based on what Lawton (1989) proposes, highlights three basic functions of socio-physical environments that positively influence the quality of life of elderly individuals: maintenance functions, in which the environment contributes to the individual assigning meanings and deriving experiences from home, place, identity, attachment, and satisfaction with the household; the stimulation function, which refers to aspects of the environment that stimulate adaptive behaviors, such as social and leisure activities, or those that reduce or amplify behavioral problems in elderly individuals with physical and/or cognitive impairments; and the support function related to aspects of the environment that have the potential to compensate lost or reduced abilities, also called "environmental prostheses". Among these aspects are the factors that promote physical security, guidance and functional independence.

Financial difficulties are also included in this area and they are indicators of self-care issues, the purchase of medication, being worried about unemployed sons/daughters, dissatisfaction about having to work to support the family, or not having their own houses is a determining factor for the negative quality of life assessment by elderly individuals (Almeida-Brasil et al., 2017).

Considering that quality of life involves multiple aspects of human experience, Pereira, Teixeira, and Santos (2012) highlight the fact that the analysis of the quality of life needs to undergo some improvements, both on its operational dimension and on its epistemological bases. The authors emphasize the importance of the complementarity of more general and quantitative analyzes with focal qualitative approaches. Besides being important to investigate the relevant factors in the perception of people or groups to have a good quality of life, it is necessary to reflect on the ways in which these factors have become relevant, considering the historical, socio-cultural and psychic aspects of the environment and the insertion of the individual. The qualitative data are a complement that allows researchers to identify the aspects that include the QoL domains, considered in the WHOQOL-BREF scale, and analyzed in the sample of this study, which has the peculiarity of being a sample of elderly people with chronic diseases.

Final Considerations

The study in question allowed researchers to identify aspects related to the quality of life of elderly individuals with SAH and DM, who are being cared for in the primary health care network of a city in the countryside of the state of *Paraíba*. They are elderly individuals with characteristics that are common in most Brazilian elderly individuals who depend on public services in Brazil - low educational level, living with less than one minimum salary per month, the majority of them being women, and who present conditions that demand, regularly and frequently, attention to these services.

The results showed that the participants scored the highest values in the "social relations" and "psychological" QoL domains in the assessment, using the instrument. These two domains brought together more evocations in both groups, which characterize the importance of these aspects to improve the participants' quality of life. Regarding the "physical" domain, the study revealed important data, based

on the WHOQOL-BREF scale analysis, which showed a negative correlation between the physical domain and the age variable, which indicates that the older the individual, the worse the QoL perception will be. It was also possible to verify that elderly individuals who do not have SAH or DM present higher mean values in this domain. In a complementary way, the data of the focus groups point to the centrality of the disease in the participants' reports, which contemplates this domain and overlaps other elements, such as routine activities or the ability to work.

Concerning the last domain, "environmental", which presented the worst mean values in relation to the others, and also appeared less in the evocations of the focus groups, it is necessary to reflect, firstly, on the economic profile of the participants – most of them live with the equivalent of only one minimum salary per month. The domain showed a very significant positive correlation with the income variable, which indicates that the higher the income, the better the score for this domain, considering that this is a determining factor in the perception of QoL. The data of the qualitative strategy emphasize the importance of the economic factor for the participants, and although it appears less in the reports, they also appear as something relevant, with regard to basic aspects of human dignity, such as food. In relation to physical space, the data add elements that relate to the accessibility, safety and tranquility of living spaces. Therefore, this is a broad domain, covering essential elements for the participants' QoL perception.

In this sense, considering quality of life as a broad aspect that crosses different dimensions of the life of the individual, the relevance of this study stands out, for it discusses this aspect and the associated characteristics of elderly individuals with systemic arterial hypertension and diabetes *Mellitus*. These chronic diseases have their duration as a peculiarity, and require rigorous control and permanent care due to possible sequelae. Although they are considered common, since they affect a large part of the elderly population, they are diseases that interfere, not only in the routine of the person they affect, but in their family dynamics, with regard to the co-responsibility in its treatment and care, are diseases that also require interventions from the health care services, from the primary health care level to the more specialized health care services, and it is therefore essential to understand the aspects that go through the experience of this condition.

From the perspective of its limitations, it is important to note that this study was confined to the reality of individuals with systemic arterial hypertension and/or diabetes *Mellitus*, and it is important to consider that any diseases, especially chronic diseases, are life-changing events to an extent, and whether or not presenting physical pain, they can affect the emotional state of the patient.

In view of this, it is necessary to invest in studies that investigate the relationship between patients and their illness - studies in the field of psychology, especially considering the psychology of health, enabling the understanding of the psychic aspects in a field whose physical dimension stands out. In addition, studies with quantitative-qualitative methodologies allow a broader understanding of the investigated phenomenon, and are an important tool in the study of issues that require a more detailed look.

Contributors

K.L. SANTOS conception and design of the research, E.G. SILVA JÚNIOR and R.L. P. MELO collaborated with the analysis and interpretation of data. M.C.B. PESSOA collaborated with the review, and M.C.B. EULÁLIO review and approval of the final version of the article.

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