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QUALITY OF LIFE OF ELDERLY PEOPLE WITH CHRONIC NONCOMMUNICABLE DISEASES

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ABSTRACT

Objective: This work aimed to describe the sociodemographic and economic profile and to analyze the quality of lifeof elderly people with chronic noncommunicable diseases. **Methods:**It is a descriptive and quantitative study. Thirty-eight elderly individuals diagnosed with chronic noncommunicable diseases took part in the research. For data collection, a sociodemographic and economic form and the Short-Form Quality of lifeQuestionnaire (SF-36) were applied. Statistical Package for Social Science was utilized to analyze the data, and the variables were presented by means of frequencies, percentages, median, minimum, maximum, and standard deviation (M ± SD). The level of significance adopted was of 0.05. **Results:** All the elderly participants were female, 52.6% were widowed,42.1% white 42.1% lived alone, (42,1%), were between 71 and 75 years old, 39.5% hadelementary I schooling level, 55.3% live with incomefrom one to two minimum wages. Regarding the qualityof life, the functional capacity domainpresented the highest score in the assessment and social aspects were the lowest. **Conclusion**: These work findings indicate that NCCDs influence the elderly people quality of life, and that participation in peer groups can contribute to physical, social, and mental aspects, enabling a better quality of lifefor these individuals.

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INTRODUCTION

The current growth of the elderly population represents a world reality. In Brazil, this considerable raise throughout the last decades was due to the fall of birth rate, mortality decrease, advances in health practices, and increase in life expectancy. However, the longlife expectancy may be associated with the probability of arising the prevalence of chronic noncommunicable diseases (CNCD), which especially affects the older population. From this scenario, it has become a challenge for health area and for the state to create strategies for healthy and active aging (Silva *et al*., 2015). The presence of CNCDs, such as arterial hypertension, diabetes mellitus, cardiovascular and respiratory diseases, and cancer can affect the quality of lifeof individuals, since they are one of the major factors of mortality in Brazil and evolves in a progressive way, generating physiological changes, functional inability, dependence, which will cause social, economic, and psychological impacts on the individual and his family (Pereira *et al*., 2017). In this regard, it is fundamental to develop projects and programs that can improve the elderly quality of life, even living with a DCNT, and thus promote an active and independent old age (Pereira *et al*., 2015; Pereira *et al*., 2017). According to World Health Organization (WHO) the term "quality of life" is "the individual's perception of their position in life within the context of their culture and the value system of where they live and it is also related to his goals, expectations, standards, and concerns"(WHO, 1994, p.14). Therefore, quality of lifeis related to satisfaction in several dimensions in an individual's life, such as the biological, social, economic, political, his expectation about living and living with the disease (Pereira *et al*., 2017; Junior *et al*., 2018). Understanding that quality of lifeis a subjective and important process for an active and independent aging,s becomes necessary to know how elderly people perceive it. The comprehension of this perception may also contribute to the adoption of strategies to promote and intervene in risk factors that may affect theirquality of life. In this context, this

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study aims to describe the sociodemographic and economic profile and to analyze the quality of lifeof elderly people with CNCD.

MATERIALS AND METHODS

It is a descriptive study with quantitative approach. It was carried out in an elderly people group offered by a private institution of higher education in the municipality of Vitória da Conquista, located in southwestern Bahia. It represents part of a major project entitled "Education and Interdisciplinary Practices in Health for the Elderly with Chronic Noncommunicable Diseases." The elderly people group is coordinated by the collegiate of the Undergraduate Nursing Course of a private Institution and has been in operation since October 2017 with the presence of 57 participants until the moment of this research. The sample consisted of 38 elderly individuals, selected after using the following inclusion criteria: to be 60 years old or more with a diagnosis for CNCD, enrolled in the institution's elderlies group, and who agreed to participate voluntarily in the study. The elderly who took part in the group but who did not present a diagnosis of CNCD were excluded. Two instruments were utilizedfor data collection: a sociodemographic and economic form developed by the researchers and the Short-Form (SF-36) questionnaire on quality of life, internationally validated and adapted to the Brazilian version. It is a generic and multidimensional questionnaire assessing quality of life, easy to administer and understand. It is composed by 36 items and provides a final score from 0 to 100, in which 0 corresponds to the worst general health status and 100 the best health condition (Ciconelli*et al*., 1999; Moura *et al*., 2015).

The sociodemographic and economic form sought to trace the participants' profiles based on variables such as age, gender, race/ethnic group, marital status, housing, income, schooling, and others. The two questionnaires were transcribed for KoBo Toolbox software and applied online. This software was developed by Harvard Humanitarian Initiative and is an instrument with simple and powerful tools for data collection being used by humanitarian organizations and researchers (Milner *et al*., 2018). Statistical Package for Social Science (SPSS - version 22.0, Chigago, IL, USA) was used to analyze the quantitative data. The variables were presented by means of frequencies, percentages, median, minimum, maximum and standard deviation (M ± SD). The level of significance was set at 0.05 and the interval of confidence (IC) was of 95%. Calculations of the SF-36 scores were performed in two steps:

Phase 1 (one) - the data ponderation was performed, observing the question and its respective score. Phase 2 (two) - for this phase was done the calculation of Raw Scale, which firstly the value of the previous questions was transformed into notes of eight domains with variation from 0 (zero) to 100 (hundred), being 0 the worst condition and 100 the best one, for each domain. It is emphasized that each domain applies own corresponding questions, as described below:

Functional capacity (03); limitation by physical aspects (04); pain (07 and 08); general health status (01 and 11); vitality (09), only the items a, e, g, i; social aspects (06 and 10); limitation by emotional aspects (05), and mental health (09) only items b, c, d, f, h. For each domain a formula is applied: the value obtained in the corresponding questions, less the lower limit, times 100. In the equation, the values of lower limit and variation (Score Range) are fixed (UFPR, 2013).

Equation:

$$\frac{\text{Value obtained in the corresponding questions - Lower limit} \times 100}{\text{Variation (Score Range)}} \quad (1)$$

Later, the median, minimum, maximum, mean, and standard deviation were performed to evaluate the set of individuals participating in the study. From that information, results interpretation was done based on the current literature. The research followed all the ethical issues according to Resolution 466/12 (Braszil, 2012) for research with human beings, being approved by the Research Ethics Committee (CEP) of the Northeast Independent College (FAINOR), under the number of protocol2.960.922. All the elderlies who participated in the research were volunteers and signed the Informed Consent Term (TCLE).

RESULTS

From the thirty-eight individuals, 31.6% were representatives from the 71 to 75 years-oldage range, 100% were female, 42.1% white, 52.6% widows, 76.3% were catholic, 39.5% had elementary I schooling level, 55.3% lived with a family income of 1 to 2 minimum wages, 42.1% lived alone while 94%live together with children, according to description of the profile of the elderly participants. The data are shown in Table 1.

Table 1. Sociodemographic and economic profile of the elderly with chronic noncommunicable diseases. Vitória da Conquista, Bahia, 2019

Variables	N	%
Age range		
60 to 65 yearsold	8	21.1
66 to 70 yearsold	7	18.4
71 to 75 yearsold	12	31.6
76 to 80 yearsold	9	23.7
More than 80 yearsold	2	5.3
Gender		
Female	38	100.0
Race/EthnicGroup		
White	16	42.1
Brown	12	31.6
Black	10	26.3
Marital Status		
Married	9	23.7
Divorced	4	10.5
Single	5	13.2
Widow	20	52.6
Schooling		
ElementarySchool I	15	39.5
ElementarySchool II	5	13.2
High School	13	34.2
HigherEducation	3	7.9
No schooling	2	5.3
Month Familiar Income		
Between 1 to2 wages	21	55.3
Between 3 to 5 wages	11	28.9
More than 5 wages	2	5.3
Lessthan 1 wage	4	10.5
Religion		
Catholic	29	76.3
Evangelical	8	21.1
None	1	2.6
Live together		
Withchildren	8	21.1
With spouse	8	21.1
Withrelatives	6	15.8
Alone	16	42.1
Children		
No	2	5.3
Yes	36	94.7
Total	38	100.0

Source: The author.

Table 2. Quality of life (n=38) according to SF-36 domains. Vitória da Conquista, Bahia, 2019

Domains	Median	Minimum	Maximum	Mean± SD*
Funcional capacity	80.0	25.0	100.0	75.59 ± 19.22
Limitation by physical aspects	75.0	0	100.0	70.23 ± 35.02
Painperception	64.0	10.0	100.0	64.45 ± 24.74
General health status	60.0	30.0	87.0	58.42 ± 13.10
Vitality	50.0	5.0	75.0	51.30 ± 11.69
Social aspects	50.0	12.5	87.5	49.70 ± 13.66
Limitationbyemotionalaspects	100.0	0	100.0	73.80 ± 35.71
Mentalhealth	60.0	32.0	72.0	56.76 ± 9.64

Source: The author. *SD= Standard deviation.

The Short-Form questionnaire (SF-36) evaluates individuals'quality of life. It has eight domains that exhibits the results according to the perception of each elderly, and, as mentioned before, the closer to 0 (zero) the quality of lifeis considered worse, and the closer it approaches the 100, the better it is. It was evidenced that the domain of social aspects had the lowest mean of 49.70, followed by the domain of vitality that presented an average of 51.30. The following items were observed: mental health (score 56.76), general health status (score 58.42), perception of pain with (score 64.45) and limitation for physical aspects with (score 70.23), functional capacity (score 75.59), and emotional aspects with (score 73.80), according to the results presented in Table 2.

DISCUSSION

These study findings demonstrated that all the participants were women;highlight is valuable to the feminization in old age, since the demographic data of the Brazilian Institute of Geography and Statistics (IBGE) reveal that women in elderly population are represented in the number of 16.9 million (56% of the elderly), while the elderly men are 13.3 million (44% of the group) (IBGE, 2017). Also, other works have pointed out to a greater participation of elderly women in cohabitation groups for this population (Wichmann *et al*., 2013; Almeida *et al*., 2015; Previato*et al*., 2019). The predominance of white people with low schooling (elementary education I) and low income (1 to 2 minimum wages) can also be seen.Pimenta*et al*. (2015) remarks that an unfavorable economic condition impacts on access to health and social services, compromising well-being and negatively influencing the elderly quality of life. Regarding low schooling, it has been shown that it affects thelearning during teaching, which causes difficulty in understanding CNCDs, which isnecessary for adopting measures to control and prevent such diseases. In the study conducted by Araújo *et al*. (2017), many elderlies mentioned they believe that inclusion in a group is a significant strategy for learning among other colleagues. Thus, it is possible to verify the importance of the participation of these women in peer groups, since they become part of the socialization process besides promotion and prevention of health actions.

Data related to marital status bring that the highest prevalence is of elderly widows living alone. Such a condition may contribute to a psychologically unfavorable quality of life, since older individuals that live alone can be deprived of attention, companionship, often unable to cope emotionally with loneliness (Azeredo*et al*., 2016). The elderly can live alone, not by choice, but for lack of a relative, as Schweitzer *et al*. (2018) pointed out in his study, in which 66% of the respondents investigated reported not having any help from a relative.

Motta *et al*. (2014) suggests the importance of the family in this context,remarking the adoption of new habits that stimulate support, participation in groups, and that they have friends for improving social life. All this bond provides a better well-being, and consequently, healthy self-esteem reducing sadness and loneliness. Inclusion in groups seems to be a way for these elderly women to maintain relationships with other people, making friendships, sharing their experiences, knowledge, joys, sorrows, seeking to move away from feelings of sadness, fear, loneliness, and social isolation (Wichmann *et al*., 2013; Azeredo*et al*., 2016; Previato*et al*., 2019). Quality of lifeis related to the living conditions of a human being and involves social relationships, mental, psychological, emotional, and physical well-being. Regarding the functional capacity domain, a high score was obtained representing a good quality of lifecondition of the participants. Functional capacity refers to the individual's ability to perform activities of his daily life such as running, tidying up, carry food, kneeling, climbing stairs, among others. In this work, the functional capacity aspect was similar to the studies by Cruz *et al*. (2013), Kagawa *et al*. (2015), Matias *et al*. (2016) and Klein *et al*. (2018), in which higher values in this question represented a better condition to perform their daily life activities, make decisions, and manage their own lives contributes to a better quality of lifefor them.

The domain limitation by physical aspects presented a score that revealed itself well balanced, reflecting only small difficulties to carry out their daily activities. Ferreira *et al*. (2018) corroborate that the presence of physical limitations in older individuals can interfere in their mobility, social interaction, autonomy, and psychological suffering influencing the perception of the quality of life. Faced with the influence of physical aspects on the functional capacity and elderly quality of life, the importance of promoting and preserving the functionality and independence of these individuals is emphasized. It can be done through the insertion of healthier living habits such as a balanced diet, regular physical activity aimed at increasing muscle strength, coordination and balance, fall prevention, dance classes, among other activities in order to prevent the onset of diseases and improve their functionality and quality of life (Sousa *et al*., 2016; Araújo *et al*., 2017; Ferreira *et al*., 2018). The general health domain exhibited a score slightly above 50, proving to be a vulnerable aspect that should be observed to guarantee quality of life for these elderlies (Araújo *et al*., 2017). In elderly patients with comorbidities, the quality of lifeperception is negative and studies have shown that thegreater the number of CNCDs, since they can impair or cause health complications, the worse is their welfare (Araújo *et al*., 2017; Ferreira *et al*., 2018). Thus, it is necessary to implement a more complete and comprehensive health care by professionals, health system,

and family in order to assist the elderly in the practice of self-care, autonomy, and development of perceptions onCNCDs for guaranteeing animproved well-being condition(Ferreira *et al*., 2018). Researches have shown that many elderly people seek to participate in peer groups to escape from loneliness and fear of depression (Ferreira *et al*., 2014). In this work, the score for limitations byemotional aspects presented a maximum score, thus, representing quality of lifeon this topic (Andrade *et al*., 2014). In Andrade *et al*. (2014)'s work, many elderly women interviewed were widows, had lost their husbands, and felt too much alone, without practicing activities. After invitation, they accepted to join groups and it helped them to overcome the lack of company. Besides, the presence of CNCDs can lead to functional limitations resulting in isolation, lack of participation in family reunions, leisure, that can lead to isolation, mood alterations, and other emotional disorders (Matias *et al*., 2016). Therefore, Wichmann *et al*. (2013) defend the importance of the elderly groups in the promotion of self-esteem and improvement in the psychological aspect.

The social aspects domain is related to the individual sociability and if any physical or emotional problem interferes in their social activities. This study highlights the average score of 50 evaluated by the SF-36, which shows a negative interference in the participants' quality of life. Even though they have shown good scores on functionality and emotional limitations, their social relations reveal that they do not adequatelylive together within the family or in their surroundings.

The low score in this aspect often may be related to dissatisfaction with social relations as recorded byCamelo, *et al*. (2016) that can happenthrough family quarrels, lack of empathy, or affinity with neighbors. To improve the quality of life on this topic, it is essential for the elderly to modify their social relationships by participating in churches, dance, and theater classes, use the internet and social networks, and other group activities to preserve their interaction and socialization with family and friends in this phase, thusminimizing the feelings of sadness and loneliness (Souza *et al*., 2016; Ferreira *et al*., 2018;Viscardi*et al*., 2018). The vitality and mental health domains also showed a lower average. This domain is tied to the individual disposition, will, and energy. The word vitality derives from the Latin, *vitalitate*, whose etiological root means life (Menezes, 2012). The natural aging process generates physiological changes that will directly interfere with the physical and emotional vigor of the elderly individual (Vieira&Aquino, 2016). Also, health impairment can occur with the presence of diseases, not that aging is synonymous with disease, but it is a physiologicalprocess, especially in the absence of an active and healthy aging. Besides the physical aspect, the idea of vitality can also be related to subjective well-being, and its meaning can change from individual to individual. This subjective vitality is always reinforced by a perception of some purpose in life, will to live, religiosity, and positive thoughts. Many elderly people with physiological, functional, social, and emotional problems can lose this vitality and they can even ask for the arrival of death (Vieira& Aquino, 2016).

Therefore, several aspects such as individual, social, emotional, and environmental can contribute to a greater or lesser individual vitality and mental health, reflecting on their quality of life. Thus, care must be taken to prevent and treat some aspects of elderly people's life, such as sedentarism, functional disability, dependence, iatrogeny, medication use, mental state, family relationships, job satisfaction, leisure, spirituality, among others (Pereira *et al*., 2015). Couto *et al*. (2017) points out that all the aspects that affect the vitality and possess a positive relation with well-being in elderlies is fundamental to guarantee their quality of life. Andrade *et al*. (2014) describe that when the elderly take part in apeer groups there are significant changes in their lives concerned to will to live, revealing the importance of these groups in elderly vitality, and then, in their quality of life.

Final Remarks

This study assessed the quality of lifeof elderly people enrolled in a peer group coordinatedby a Higher Education Institution and identified that the presence of CNCD can affect the quality of lifeof these individuals, and that the participation in these type of groups contributes to the improvement of their well-beingin aspects such as physical, social, and mental. From the SF-36 and analysis of theparticipants' responses, it was possible to verify that the social aspect and vitality domains obtained a lower average score, indicating the need for intervention by the coordinators of this group in order to improve the conditions of social relations and live for these individuals. Besides, aspects that have achieved satisfactory scores, such as functional capacity, limitations due to emotional aspects and limitations due to physical aspects, also need to be worked out, since the participants have CNCDs, pathologies that require constant care to prevent recurrences, improve symptoms, control of disease evolution, maintenance of functionality and independence, and thus, promote a better health conditionfor this population. The low number of participants is highlighted as a limitation of this work, remarking the importance of new studies on the elderly people quality of lifeliving with chronic disease, especially through the Short-Form 36 questionnaire.

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