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Quality of Life and Functional Capacity: A Correlational Study with Elderly Women from the City of Lago Da Pedra-MA

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Abstract

During senescence, drop in physical performance levels is inevitable. This fact has repercussions on the functional capacity of the elderly, compromising their development in daily activities, and consequently their quality of life. In this study, we sought to identify the level of quality of life and functional capacity of active elderly women, and to verify the degree of interdependence among these variables. The sample was for convenience, having as volunteers, 30 elderly women who signed the Term of Free and Informed Consent. They answered the SF-36 Quality of Life Questionnaire and underwent the motor tests proposed in the Functional Capacity Assessment Protocol (GDLAM). The mean and standard deviation were used for descriptive analysis; Kolmogorov-smirnov test was used to analyze the data distribution; and to verify the interdependence of the variables, a Sperman correlation test was performed, significance level $p < 0.05$. The study was carried out at the Souzinha Catingueiro Cultural Center, in the municipality of Lago das Pedras (MA), from March to May 2018. We identified that only the Social Aspects domain had no significance in the General State domain, in the analysis of Questionnaire SF- 36, while the other domains showed a $p > 0.05$; with emphasis on Vitality and Functional Capacity that also presented a high positive correlation with the General State domain. However, we identified a "weak" classification in Functional Capacity motor tests and a low correlation with Quality of Life. We believe that the perception of the elderly about their functional capacity is not consistent with the performance presented in the tests. We hope that new initiatives will seek greater clarification about the relationship between Functional Capacity and Quality of Life of the elderly.

Key Words: Elderly; Quality of Life; Functional Capacity

Introduction

Life expectancy is increasing all over the world. Socio-economic-cultural development and technology have succeeded in increasing the survival of the human species. With this, an increasing number of individuals can survive until 70, 80, 90 years. Today, a hundred years is a possible age. What is the quality of this survival? How to increase the physical, intellectual, emotional and social vigor of this population until the moments before death? How to promote an ever-increasing survival, with a better quality of life? [1].

Paschoal [2] states that aging is a process, intrinsic to all human beings, that begins in the perception and goes through life. At every moment he gets older. Everyone grows old, and young people will one day be the elders of their age. This situation can result in two issues, one with good quality of life and one with no quality of life. Between these two extremes they depend on various situations. In which one will be reached depends on multiple variables, some belonging to each individual and, the others, dependent on society.

Aging is a common and natural process to all beings, being this continuous and yet more demarcated in the last phase of life. According to Santos [3], aging is "a complex process whose functioning is not known in detail and is justified by several theories and not least points of view, most of them coming from particular aspects of old age, still lacking in logical functioning."

Aging has been increasingly explored, this has happened due to the aging of the population; the same, it is inherent to any human being in its development phase and as we grow older the difficulties increase, aging is seen in various ways, is the result of how each one faces this process and it is impossible to make

a systematization, categorization of people and their feelings, because the same event can have several connotations at varying moments for a variety of people.

The current society to which these elderly people belong requires a rule to relate to life, which is established socially. Thus, according to Beauvoir [4], "old age could be understood only in its totality; it is not only a biological fact, but also a cultural fact."

In Brazil, old age has also been seen as a social status. The elderly index was lower because of the conditions that devalue the longevity, being these more valued by the younger, expressed respect, life experience. However, over time this has been changing.

Santana and Sena [5] shows this change: With the increasing aging of the population, a new image on aging gradually begins to form, attributing to the same, new meanings and values that are opposed to those created and reproduced socially for a long time.

This idea has guided societies to reduce the role of the elderly in choosing their own destiny. However, such practices have not always occurred in indigenous societies, which have the figure of the shaman, for example. Or even as Gold farb [6] points out that in old cultures and civilizations the old person was respected, and old age is a symbol of social status:

In traditional societies the figure of the old represented wisdom, patience, and transmitted the values of ancestry: it was he who held the collective memory; who, through evocation and oral transmission, constructed a narrative with which each individual was incorporated (made body) in the history of the group [6].

Capitalist society only understands the elderly as a being of rights by the chronological idea. However, the character of old age is not only related to the age it possesses, because, these characterizing aspects are linked to other pejorative values of everything that distances from the given and seen as an example to be followed these values unite to cause a poor image of this population is poverty, race, aesthetic issue, unemployment, illness, among others.

According to Fraiman [7], in this scenario the elderly person is seen more by what produces than by what is. Capitalist society rejects the individual to the extent that it loses the condition of exercising a workforce. Such an understanding there is a tendency for the elderly and economically inactive to be understood socially as dead, eliminated from the sphere of power.

Therefore, the concept of old age has been evaluated as a bad thing, because it means the negation of previously appreciated and esteemed values, such as physical beauty, the power of production and power, values classified as proper to youth. According to Guimarães [8], the most frequent form of cultural discrimination has been the idea of the elderly as something "disposable", "past" or "social weight". According to the author, in the emotional dictionaries of the population, old age is the same as decadence, decay and loss of decency.

The study in Social Gerontology understands the aging process as part of the life of every human being and according to the same author, the aging process, or old age, can be conceptualized in three main ways: chronological old age, defined by the fact of having aged 65 and causing them to leave work.

It can be said that chronological age is an important but not determinant, since to them they add other personal and environmental conditions that determine the general state of an individual; functional old age, comprising the term "old" as synonymous with "incapable" or "limited". This term is considered erroneous, since old age does not necessarily represent a limitation or incapacity, emphasizing that this is the vision of the great majority of society.In this sense, the Statute of the Elderly, exposed by Neri [9], by the law that governs it, states in its articles 26 and 27 that:

Art. 26. The elderly has the right to exercise professional activity, respecting their physical, intellectual and psychic conditions. Art. 27. In the admission of the elderly in any job or job, it is forbidden to discriminate and set the maximum age limit, including for competitions, except in cases where the nature of the job requires it.

Nowadays, in addition to age, other personal characteristics such as physical state, illness, personal and professional history, family and social balance are considered, in such a way that the person is evaluated in its complexity Soares and Rodrigues [10] show that the intention is no longer to prolong life, but especially to ensure the preservation of the functional capacity of each subject, so that he remains autonomous and independent for as long as possible to this process.

However, in order for the elderly population to have its active capacities, it is essential that the health system in Brazil and other countries in this situation ensure universal access to basic care, public policies to control risk factors and stimulate healthy lifestyles, conditions to determine indicators capable of identifying high-risk individuals, emphasis on health promotion and disease prevention, and that the elderly are generally evaluated with the central aim of maintaining functional capacity.

Zimerman [11] conviviality in society enables the exchange of affection, experiences, conceptions, and a constant exchange of affection. Other relevant characteristics are the stimulation of thinking, doing, giving, learning. The elderly must be involved in activities that make them feel useful. Even when you have good financial conditions, the elderly person should be included in situations that offer him pleasure and satisfaction. Collective activity is a way to keep this subject inserted socially, where the relationship with other people collaborates expressively in their quality of life.

We deal with the quality of life and functional capacity of a group of active elderly women living in Lago das Pedras-MA. We sought to identify the level of quality of life presented by them to associate with the functional capacity of the same and to verify if there is a relation between the variables.

Theoretical Reference

At this point we will address the three pillars of the research based on the scientific literature specific to the theme, aging, quality of life and functional capacity.

a. Senescence in Context

Aging is progressive, and the transformations it entails often occur unnoticed to the elderly. Your recognition is different for each person. The presence of Chronic Non-Communicable Diseases (CNCD), potentiated by the loss of the function of certain organs, can generate limitations functional, resulting in incapacities and, therefore, dependence on the part of the elderly. Physical limitations, cognitive decline, some depressive symptoms, sensory loss, falls, and social isolation may be directly related to the advancement of age and may be significant risk factors for impairment of functioning [12].

According to the World Health Organization (WHO, 2002), people over the age of 65 are considered elderly. This reference, however, is valid for inhabitants of developed countries. In developing countries, such as Brazil, the third age begins at age 60. This segment of the population, by the aging process itself, presents a higher prevalence of chronic-degenerative diseases [11].

Aging is a natural process that marks a phase in the life of man and is caused by physical, psychological and social transformations that individually affects each subject that reaches the third age. It is a stage in which, in meditating on one's own existence, the elderly person deduces that they have reached many goals, but also endured many losses, of which health stands out as one of the most compromised aspects [13].

Feijó and Medeiros [14] affirm that, in general, the older societies described the stage of old age as something worthy and considered them as wise those that arrived at that stage. In the eighteenth century, the elderly was seen as patrimony and not problem. However, this form of appreciation given to the elderly would not prevail for a long time, because with the development and progression in progress, the product of the industrial revolution, a reversal of values arises, instead of wisdom, man would now be judged by his ability to production.

The rapid changes in the world, the rapid pace of events, changes in values and customs can make the elderly feel incapable, stupid and ignorant because they have difficulty adapting and understanding so many new things. To do so, they feel the need for help from the younger ones, which can lead to a feeling of loss. Keeping up-to-date, exercising cognitive abilities, is a good way to minimize or even control the alienating effects that progress can generate on older people [15].

According to data from the Brazilian Institute of Geography and Statistics [16], the population of older people is the one that is considered by the Brazilian Institute of Geography and Statistics [16]. the more it grows in Brazil, meaning a new and challenging fact for families, for governments and society in general. At the beginning of the twentieth century, the life expectancy of the Brazilian was only 33.5 years, reaching 50 in the middle of the same century, the age level reached 74.08 years in 2011, with women having a life expectancy of seven years more than men.

IBGE [17] points out that Brazil accelerated so much demographic change that the elderly population reached in 2011, 23.5 million, which was expected to be reached only in 2020. The index of people over 60 years of age in Brazil exceeds the population of the elderly in several European countries, including France, England, Italy and Spain.

Veras [18] emphasizes that Brazil is today a "young white-haired country", since each year 650 thousand new elderly people are added to the population. A fact to be emphasized is that of this number the majority of this public are affected by chronic diseases and some with functional limitations. In this scenario, a problem is observed that the society considers, since in less than 40 years, Brazil went from an environment that had a great juvenile mortality, to a complex and expensive illness common in long-lived countries, marked by chronic diseases and multiple that persist for years, requiring permanent care, continuous treatment and periodic examinations.

In this perspective, Scortegagna and Oliveira [19] states that for the elderly to remain active in a society the idea of their disability is a problem to be solved. Old age should be understood as a stage of human development and not as a synonym for disease. Such a step if lived in a healthy way makes the elderly more active, with unique abilities.

Despite all prejudice, according to Lima-Costa [20] most of the elderly population is optimistic about life, and even those suffer dependence and lose part of their autonomy, when their family takes care of it and the money for the basic needs, such as food and medicines, are considered healthy.

Legislative progress and the scope of the conception about the protection of the elderly and the affirmation of their rights, understood as creditor subjects of all the fundamental rights inherent to the human person required for the full exercise of citizenship. However, the question is how to realize a right that has already been obtained, and this implies a deep understanding of the historical processes and the relations of forces that have not

yet been overcome, and which effectively make the right to be fulfilled [21].

The National Policy on Social Assistance (PNAS) was approved in 2004 under Resolution No. 145 of October 15, 2004. It is a policy that, together with sectoral policies, considers socio-territorial inequalities, aiming at confronting them, guaranteeing social minimums, the provision of conditions to attend society and the universalization of social rights. It has as guidelines the Basic Social Protection and the Special Social Protection, aimed at the various priority social segments, among which the elderly is highlighted. These two levels of protection are regulated by the Unified Social Assistance System (SUAS), with attributions and competences defined in each federative entity under the supervision of the Ministry of Social Development (BRASIL, 1998).

Aging is a process that everyone must learn to control, so that the end result is the best it can be. Which way to choose, so that, at the end of existence, when evaluating life, if you are fully satisfied, feeling like being whole and accomplished, with the feeling that you still have a place in the world, where you can continue to develop as participant of his destiny, active in society, integrated with humanity and the cosmos. That's a big challenge. (PASCHOAL, 2006).

b. Quality of Life and Aging

The term quality of life, between the 1940s and 1950s, was used to criticize policies in which the goal was unlimited economic growth, meaning the ability to measure how much a society had developed economically. Over the years, the concept expanded and beyond economic growth, when it came to consider social development, composed of education, health, leisure and others [1].

Over time, quality of life has been attributed and valued factors such as subjective well-being, quality of relationships, personal fulfillment, perception of well-being, possibilities of access to cultural events, leisure opportunities and feelings [22].

Quality of life was synonymous with health that meant the absence of disease, however, in 1948, this dichotomy was de characterized. The physical, psychological and social well-being factors made up the health indicators that contemplated some aspects of quality of life making it a topic of increasing interest for researchers and physicians [23].

For Minayo, Hartz and Buss [24], "quality of life is an eminently human notion that has been approximated to the degree of satisfaction found in family, love, social and environmental life and the existential esthetics itself." The World Health Organization (WHO, 2002) defines quality of life as: "The perception that a person has of his life, in the context of the value system and the culture in which he lives; in relation to their goals, expectations, standards and interests "[25].

The concept of quality of life is related to self-esteem and personal well-being and covers a wide range of aspects, such as: functional capacity, socioeconomic level, emotional state, social interaction, intellectual activity, self-care, family support, health status, cultural values, ethics and religiosity, lifestyle, job satisfaction and / or activities of daily living and the environment in which one lives. It is, therefore, a subjective concept [26].

Since the 1980s, there are several international initiatives that value the possibility of considering aging as a positive process, thought as a moment of life in which it is possible to enjoy well-being and pleasure. The policy of active aging proposed by WHO (2002) is an example of these recommendations, emphasizing that aging well is not only the responsibility of the individual, but a process that must be backed by public policies and social and health initiatives at the same time. of life [27].

Specifically, in the old age, the concern with the quality of life has gained expression in the last thirty years. This was due, among other reasons, to the increase in the number of elderly people in the population and the expansion of longevity. It is known that the quality of life comprises a complex concept, which has multiple dimensions, is multi determined, refers to the adaptation of individuals and groups of people in different epochs of life, of one or several societies (Neri, 2005). Thus, defining quality of life in old age is not an easy task, since both old age and quality of life are time-dependent events.

In a complementary way, Neri [27] argues that the concept of quality of life in old age is directly associated with the existence of environmental conditions that allow the elderly 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. Self-efficacy, on the other hand, is an important precursor of behavior at all ages, since it means the belief that is learned from the individual that he or she has the resources to achieve the desired outcomes.

The quality of life in old age is a phenomenon that is currently used by demographers, geriatricians and social gerontologists. In the field of research, there is an increasing interest in the characterization of the variables that determine a ball quality of life in old age in the physical, psychological and social domains; as Neri [28] affirms, as well as by the identification of the current notions about what the meaning of this concept among the elderly population is. It is noticed that there is the interest of the several authors in relation to the construction of instruments of measure of quality of life.

In the context of the intervention, raise awareness that it is important to identify and promote conditions that allow for a long and healthy old age, with a favorable cost-benefit ratio for individuals and social institutions, in a context of equal distribution

of goods and opportunities [28].

The assessment of quality of life is based on objective conditions can be verified by external observers, using known and replicable parameters. The behavioral competences of the individual can be cited as examples; the physical conditions of the environment; the availability of health, leisure and education services; income level / characteristics of the informal relations network; urbanization and literacy rates of society; the social patterns of morbidity and mortality for the various age groups; and working conditions.

Regarding the subjective conditions, Neri [28] says that they are indirectly verified on the basis of reports about the degree to which they seem satisfactory and about their effects on individual and collective well-being. This multiplicity of criteria reflects in the great number of disciplines that contribute to the definition of the construct.

c. Functional Capacity and the Elderly

Functional capacity, according to Veras [29], refers to the degree of ability to perform basic activities of daily living or self-care, and also the conditions to perform instrumental activities of daily living. In this sense, motor functional capacity is one of the most important markers of healthy aging and active maintenance of the quality of life of the elderly. The suppression of this capacity may be associated with dependence, fragility, institutionalization and the high risk of falls, besides mobility problems, bringing complications in the short, medium and long term and generating high cost and long term care.

The extension of life, according to Veras [29], is an aspiration of any society, nevertheless it can only be considered a real conquest in the measure that adds quality to the additional years lived. Thus, any policy aimed at the elderly must take into account the functional capacity, opening the possibility of acting in different social contexts and elaborating new meanings for life in the advanced age, fundamentally encouraging prevention, care and integral care the health.

The quality of life of the elderly population is associated with maintaining functional capacity or autonomy. According to France [30], autonomy is the measure by which individuals are able to make decisions regarding the choice of activities, methods, ways of social participation, duration of activities, among others. The limits placed on the elderly by the family and society are a loss of autonomy that indicates that they do not have the same rights as they had in adult life. This implies demands and demands of the adult towards the elderly that limit them, mainly in relation to the possibilities of satisfaction.

In the evaluation of the elderly, also an understanding of the functional aspects. These include, in addition to physical and mental health, socioeconomic conditions and self-care capacity, which will reveal the degree of functional independence of the elderly. Functional capacity assessment is therefore essential for choosing the best type of intervention and monitoring the clinical-functional status of the elderly [31]. Although the concept of functional capacity is quite complex, covering others such as disability, disability, disadvantage, 9 as well as autonomy and independence, 6 in practice, the concept of capacity / incapacity is used. Functional incapacity is defined by the presence of difficulty in the performance of certain gestures and certain activities of daily life or even by the impossibility of performing them (ALVES, 2010) Alves [32] states that functional capacity can be defined as the potential that the elderly present to decide and act in their lives independently, in their daily lives. Functional incapacity refers to the difficulty or need of help for the individual to perform tasks in his / her daily life, covering two types of activities: Basic Activities of Daily Life (ABVD) and Instrumental Activities of Daily Life (AIVD). To have autonomy is to be able to independently and satisfactorily perform their activities on a daily basis, continuing their relationships and social activities, and performing their rights and duties as citizens. Active people are more likely to be healthy [33]. The division in ABVD and AIVD began with studies of two functional assessment scales that classified everyday activities according to their level of complexity. He elaborated a scale to evaluate IADL with eight activities: preparing meals, doing household tasks, washing clothes, handling money, using the telephone, taking medication, shopping, and using transportation [32]. It has been found that it is much easier to prevent deaths than to avoid the occurrence of chronic diseases and the development of disabilities associated with aging. Santos [3] states that when there is impairment of functional capacity to prevent self-care, the burden on the family and the health system can be very great.

Results of their research showed that there is a need for partial or total help from the elderly to perform at least one of the activities of daily living. It was also detected that the elderly needed partial or total help to perform up to three of these activities, and needed help to perform four or more activities of daily living [3].

Some studies on autonomy, on disability risks, daily life activities, to verify the quality of life, have been developed through standardized questionnaires, where chronic diseases and acute events have been identified (fractures, accidents [32]. In this study, we evaluated the effects of functional status and quality of life on the other hand. Criticisms have been made about health assessments in the elderly that are limited to an assessment of their physical and mental state and the consequences of these in the performance of daily living activities. Evaluations must also take into account the economic conditions and the environmental situation as a whole [34].

It is necessary not only a multidimensional assessment

that provides a global view of the person's social and health situation, but it is necessary to take into account the question of the representations that every individual has of the factors that are pertinent to them, that is, what is serene and their social roles; representation of autonomy and factors that affect; health representations; quality of life, among other things. Most studies have been elaborated where little or no visibility is given to the symbolic meanings about aging and its triggers, experienced by the subject who experiences it [34].

Generic interventions in disabilities do not present as relevant results as prevention actions, which specifically focus on disabling diseases. The focus of these assumes the need for a more comprehensive understanding of the factors that lead to the disability situation [34].

The factors most strongly associated with functional abilities are related to the presence of some diseases, deficiencies or medical problems. However, it is observed that the main underlying hypothesis in some of these studies is that functional capacity is also influenced by demographic, socioeconomic, cultural and psychosocial factors.

The functional changes that occurred with the elderly over the years, associated with non-transmissible chronic diseases, have made them less active and more dependent on performing daily life activities (ADL) autonomously, having a compromised quality of life [35].

Thus, lifestyle-related behaviors such as smoking, drinking, overeating, exercising, suffering from acute or chronic psychosocial stress, having a sense of self-efficacy and control, maintaining social and supportive relationships as potential explanatory factors of functional capacity [34].

According to Da Silva [36], it is important to maintain levels of physical activity through everyday life tasks (walking, personal hygiene, raising without assistance), as well as instrumental activities of daily living (using transportation, washing clothes, shopping and administering their own medicines). Therefore, maintaining ADLs, such as sweeping the house or going to the supermarket, can also be an important resource to minimize the degenerative effects caused by aging, which are aggravated by the sedentary lifestyle.

The maintenance of functional capacity may have important implications for the quality of life of the elderly, as it is related to the ability to occupy themselves with work up to more advanced ages and / or pleasant activities. It seems therefore very relevant to plan specific intervention programs for the elimination of certain risk factors related to functional disability.

Methodological Procedures

This study was characterized by a qualitative and cross-sectional descriptive study, since it sought to reveal the profile of active elderly women regarding quality of life and functional capacity, seeking to establish some relationship between the variables.

The study sample consisted of elderly and active women. All participated in the program of physical activities of the municipal government of Lago das Pedras-MA. The sample was for convenience, and had the voluntary participation of 30 elderly women. All of them were informed about the purpose of the research and the procedures to be performed. They were aware of the anonymity and the freedom to stay or give up participating in the study. The study was carried out at the Centro Cultural Souzinha Catingueiro, in the city of Lago das Pedras (MA), also destined to physical exercise practices.

We first sought to characterize the sample by pointing out some socio-demographic data and some health indicators.

Data collection started in March and was understood until May 2018.

In this study two scientifically validated instruments were used. First, the Quality of Life Questionnaire (SF-36) was applied. It consists of 36 items that encompass eight dimensions, of which four contemplate physical health: functional capacity, limitation by physical aspects, pain and general health; four cover mental health: emotional limitations, vitality, social aspects, mental health; and one more question of comparative evaluation between current health conditions and that of a year ago. All dimensions involve generic concepts of health, not being specific for a certain age, disease or treatment, and represents multiple definitions of health, function and organic deficiency, discomfort and well-being (MORAGAS, 2010).

All the senescence's were oriented and helped to complete the quality of life questionnaire. The purpose of the questionnaire (SF-36) is to transform subjective measures into objective data that can be quantified and analyzed in a global or specific way. Translated, adapted and validated for Brazilian culture, it is a reliable tool to evaluate the quality of life, measuring day-to-day activities (COSTA, ALEXANDRE, 2005) and health concepts that represent basic human values relevant to the functionality and well- being of each individual, detecting both positive and negative states.

To evaluate the functional capacity, we used the GDLAM protocol. The GDLAM autonomy protocol sought to associate a battery of tests that could approach the ADL in order to assess the level of functional autonomy in gerontologists, standardizing an evaluation procedure and creating classifications indicative of levels of autonomy, thus giving rise to the general index of autonomy of the Protocol GDLAM.

The GDLAM Protocol is composed of five tests, which were

adapted to a national standard of ADL-related habits, measures and other cardiovascular situations. The first test, called Walk 10 meters (C10m), has the purpose of evaluating cyclic displacement, where the time in which the individual is running 10 meters is timed - at the evaluator's command, the evaluator travels in the shortest possible time until he /

The second test - Rising from the Ventral Decubitus Position (LPDV), aims to evaluate the time in which the individual takes to get up from the ground - the evaluated one begins the initial position lying down in a lying position on a mat with arms outstretched and hands with his face turned upside down at the side of the body, at the sound of the evaluator, he will have to get up as fast as possible, having to stand.

The third test, "Get up from the Chair and Move Around the House" (LCLC), aims to assess agility and balance skills - the test begins the test sitting in a chair with 43-50 cm there is a definite course; at the sound of the evaluator's control the individual with the feet raised from the floor, gets up from the chair, skirts the cone on the right side, returns to the chair, sits on the chair and lifts the feet again, left, returns to chair again, sits on the chair, and performs the same procedure a second time to complete the test, in the shortest possible time.

The fourth test consists in evaluating the functional capacity of the lower limbs, called Lifting of the Sitting Position (LPS) - at the evaluator's command, evaluated from the sitting position (chair with height from 43 to 50 cm), eretorna to the starting position five times in the shortest possible time.

The Dressing and Taking Off (VTC) test is associated with the accomplishment of a task of the daily life of the elderly, which corresponds to the very act of being able to dress without help In this, the evaluated must stand, with the arms extended along the body, in one of the hands of its dominant side a standard shirt "G". At the 'already' sign of the evaluator, the evaluator should wear the shirt and quickly remove it, returning to initial position. Note that the timer must be activated when the individual starts the movement and, paralyzed, when the same returns to his hand, with a sweatshirt, beside the body, with the arm extended.

In all tests two trials are performed, with a minimum interval of five minutes between them, where the time of the best performance attempt will be recorded, in seconds. The tests underwent a validation analysis, to ensure that they evaluate what is truly recommended to evaluate.

With the best time taken for each of the five tests, the numbers are released in the following formula, where the result obtained is called Functional GDLAM Index, with values expressed in scores (VALE, 2005):

$$IG = \frac{[(C10m + LPS + LPDV + VTC) \times 2] + LCLC}{4}$$

At where:

C10m, LPS, LPDV, VTC and LCLC = time measured in seconds.

IG = GDLAM index in scores.

The following statistical tests were used to analyze and understand the data:

Descriptive analysis was used through mean and standard deviation. In order to analyze the data distribution, the Kolmogorov-smirnov test was used. In addition, a Sperman correlation test was performed between the SF-36 domains and correlated with the STATE GENERAL domain. The significance level was set at $p < 0.05$.

Analysis and Discussion of Results

We will present in this part of the work the results achieved in the parameters related to the quality of life, with all its domains, as well as the GDLAM Index which reveals the level of functional capacity of the elderly women involved in the study.

Descriptive analysis was used through mean and standard deviation. For the analysis of the data distribution, the Kolmogorov-smirnov test was used,

In addition, a Sperman correlation test was performed between SF-36 domains and correlated with the General State domain. The significance level was set at $p < 0.05$. The data in (Table 1) are represented by the number of elderly (n) and the respective percentage for each variable that represents the characterization of the sample.

Variables		n (%)
Age years)	60 a 69	26(90%)
	70 a 79	2(10%)
Civil status	Married	4(13%)
	Single	1(3,3%)
	Widow	23(84%)
Ethnicity	White	20(70%)
	Mulato / Brown / Brunette	8(30%)
Education	Fundamental 1	23(84%)
	Fundamental 2	4(13%)
	High school	1(3,3%)

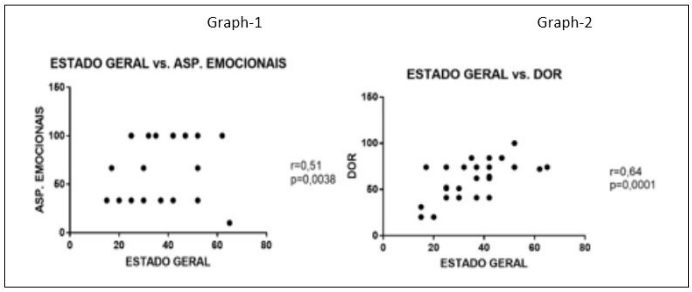
Occupation	Retired	17(60%)
	Woman from home	11(40%)
Body mass index	Normal	3(10%)
	Overweight	3(10%)
	Obesity I	9(33.3%)
	Obesity II	13(46%)
Practice Time	From 1 to 6 months	25(90%)
	From 7 to 12 months	2(7%)
	Above 12 months	1(3%)
		Total 28 (100%)
Source: Iranilde Magalhães		

Table 1: Characteristics of the group of elderly women involved in the study.

We observed, through the sample characterization (Table 1), that 90% of the elderly are between 60 and 69 years old, while the others are between 70 and 79 years old. Among the elderly women, 23 were widows, one was single and five were married. As for ethnicity, the prevalence was 70%, 20 of whom were white women, and nine were mulatto or brunette or brown. In relation to the degree of instruction we detect that 84% of the elderly women completed elementary school 1, five of them finished elementary school 2, while only one of them finished high school. As for the occupation, eighteen elderly women were retired and the other 11 elderly women were housewives.

As part of the characterization, we carried out a collection of information related to the physical component of the elderly, such as the Body Mass Index, which indicates whether the individual is at or below the ideal weight, considering the variables height and weight; practice time, in months. From this collection, we verified that 14 (46%) of the elderly are classified with degree II obesity; 10 (33.3%) of them are obese with grade I; 3 (10%) are overweight; while another 3 (10%) of them present normality in the relation between height and weight. Fernandes [37] points out that the Body Mass Index (BMI) allows us to verify if the body weight is within the normal parameters, or if the person presents a significant increase in body weight. Being that, the excessive increase of fat weight can entail in cardiac and vascular diseases. However, it is worth mentioning that through BMI we cannot determine the percentage of lean mass or fat mass, a fact that leads us to seek more accurate methods of assessing body composition.

We will start now for the results and discussions about the Quality of Life and Functional Capacity of the elderly women who proposed to participate in the study. It is worth mentioning that we will make a correlation between the SF-36 domains in the first moment; and then we will correlate the results obtained on quality of life and the GDLAM Index. In the following (Graphs1,2), we will show the results of each of the domains that compose the SF-36 Quality of Life Questionnaire, which are: Physical Aspects, Social Aspects, Emotional Aspects, Vitality, Pain, Mental Health, Functional Capacity and General Status, with their respective values of (p) and "r", which indicate the significance of the results and the degree of correlation between the variables.



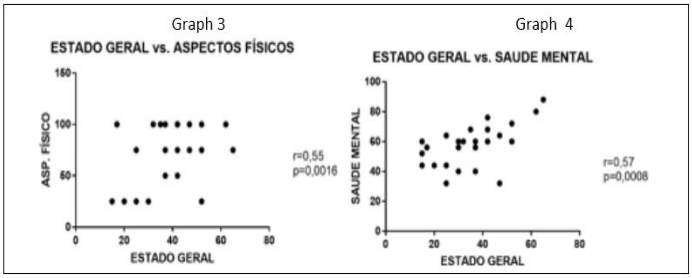
Graphs 1,2: Correlation of the General State with Emotional Aspects and Pain of the elderly.

Source: Iranilde Magalhães.

We observed, after performing the Correlation Test of the General State domain with the domains Emotional Aspects ($p = 0.0001$, $r = 51$) and Aspect Pain ($p = 0.001$, $r = 0.54$), of the SF-36, op is significant; but the correlation of both domains, although positive, was considered low.

Parhayba [38] points out that there is an interrelation between the Emociona and Pain domains, in which the presence and support of the family in the life of the elderly becomes essential, helping them to maintain their social network, being the most independently as possible, helping you with the changes that are taking place in your life and helping you to adapt to them. Information on the composition and family relationship and the presence of pathologies among the elderly were disregarded in the anamnesis, since all were already participating in physical activities for at least four months before the beginning of the study. This leaves a gap to be filled, even though it is not the focus of the study.

In (Graphs 3,4), we point out the Physical Aspects and Mental Health values, with their respective results p and correlation with the General State.



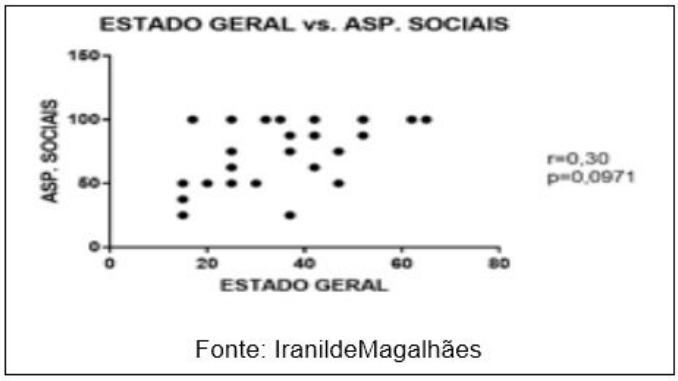
Graphs 3,4: Correlation of the General State with Physical Aspects and Mental Health of the elderly.

Source: IranildeMagalhães.

Note that the values of (p) are significant Physical aspects (p = 0.0016) and Mental health (p = 0.0008), however, values of "r" (0.55, 0.57), respectively for the Physical Aspects and Mental Health, show a low positive correlation.

The results of the Physical Aspects and Mental Health domains found in our study were significant, but do not correlate positively with the General State of the elderly, nor are they consistent with the findings of Oliveira [39] which reveal that the person who has a effective interpersonal conduct is able to develop social support networks, which operate as one of the most relevant factors in the recovery and prevention of mental health problems, in addition to presenting a high level of physical inactivity.

(Graph 5) shows the weak correlation of the Social Aspects (p = 0038, r = 0.51) with the SF-36 General State domain performed with elderly women.



Graph 5: Correlation of Social Aspects with the General State of the Elderly.

The Social Aspects domain did not present a significant (p) value, besides showing very low correlation with the General State (r = 0.30). Functional capacity, according to Parahyba [38], extends far beyond the maintenance of physical and intellectual abilities, presence of pain, also involves psychological aspects, beliefs and social relations of the life of the elderly. The author emphasizes that the presence and support of the family in the life of the elderly, helping him to maintain his social network, to be as independent as possible, assisting him in the changes that are occurring in his life and helping him adapt them. In the Vitality domain, one was found (p <0.0001) and a positive correlation, considered high (r = 0.71) with the General State domain, according to Graph 6).

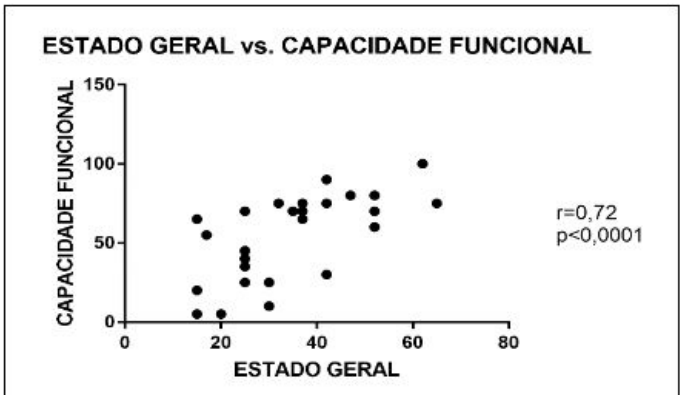
Graph 6: Correlation between Vitality and the General State of the elderly

Source: IranildeMagalhães.

In relation to the Vitality domain, Pereira and Rodrigues [40] investigated the contribution of this domain in 211 elderly people, living in the city of Teixeiras, in the Southeast Region of Brazil, through the SF-36. The vitality domain had small contribution (0.4%), but not significant (p> 0.05) (Graph 6).

On the other hand, when we compare the results of the study with those of the elderly women of the Junco Lake, we found that, even though they had a lower sample size, the results obtained in this study showed a high positive correlation with the Health Status, reinforcing the idea that Vitality interferes positively in the General State of quality of life of the senescent members of the research.

When we deal with the latter domain, we emphasize that there were expressive positive results regarding Functional Capacity, which is the focus of the study (Graph 7). The Functional Capacity had a high positive correlation (r = 0.72) with the general appearance (p <0.0001). This answer reveals that the General State of quality of life of the elderly investigated is closely linked to the Functional Capacity domain of the elderly.



Graph 7: Correlation between Functional Capacity and General Status of the elderly.

In the study of Caporicci [41] different domains of the SF-36 were analyzed, but the author sought to highlight the score of the Domain Functional Capacity (62.50 ± 37.68). When we correlate, the results of the Caporicci study with the results of this study, mean (55.67 ± 26.87), p = 0.0008, and the "r" (r = 0.72); we verified that, besides corroborating with the study of Caporicci, the Functional Capacity of the elderly of Lago das Pedras, presents a high positive correlation with the General State of their quality of life. Functional disability is an indicator of the consequence of diseases or conditions that alter the independence of the elderly. This indicator is very useful for assessing the health status of the elderly, since many of them have several associated diseases that vary in degrees of severity and cause different impacts in daily life [42]. One of the main problems frequently encountered and affecting the elderly population is the loss of function without adequate intervention of health professionals, which determines many limitations and consequently causes a change in their quality of life. (Table 2) shows the results of the GDLAM Functional Capacity tests, demonstrated for each specific activity that compose the test battery. From these we can obtain the GDLAM index (GI) that reveals the functional capacity of the elderly women participating in the study.

Test	**Média ±DP**	**P**	ranking
C10M	23,42 ±5,56	0,21	Weak
LPS	21,71 ±6,67	0,15	Weak
LPDV	13,62 ±10,69	0,11	Weak
VTC	28,30 ±9,92	0,12	Weak
IG	26,86 ±6,99	0,41	Weak

Table 2: Results of the GDLAM Protocol Test, with respective values of mean, standard deviation and (p).

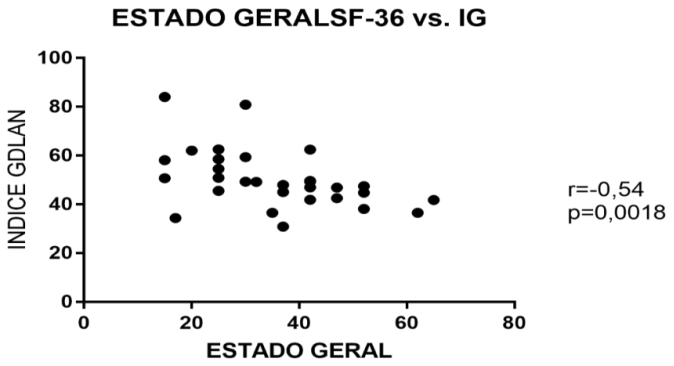
Source: Iranilde Magalhães.

The values of each test that make up the Protocol for the Evaluation of Functional Capacity of the Elderly are well below the mark considered satisfactory. Consequently, the same occurred with the GDLAM Index (GI). We emphasize that all the elderly women performed the tests according to all established criteria.

The GI classification leads us to believe that there is a divergence between the responses indicated in the SF-36 questionnaire when it comes to Functional Capacity compared to the performance of the elderly in the performance of the motor tasks proposed in each test.

The same results were seen in the study by Caporicci and Neto [41], whose objective was to evaluate the activities of daily living and the quality of life of active and inactive elderly, where the groups presented a low level of functional capacity according to the GDLAM protocol, falling into the "weak" classification in all the tests performed and there were no statistically significant differences between the groups (p> 0.05).

To conclude the study, we present the results obtained with the application of the Sperman Correlation Test between the SF-36 Questionnaire General State domain and the GDLAM IG Index (Graph 8). In this correlation analysis, we sought to verify if there is an interdependence between the General State of quality of life and the Functional Capacity of the elderly participants of the study.



Graph 8: Correlation between the Quality of Life and the Functional Capacity of the elderly

Source: IranildeMagalhães.

We then observed that, despite the fact that the elderly women presented a significant value related to the Functional Capacity domain with General State domain, when they answered the SF-36 Questionnaire; we did not detect an interdependence between the General Quality of Life domains and the GDLAM (GI) Index. The result showed a weak negative correlation between these parameters with the (r = -0.54, p = 0.0018).

This implies that the performance of the elderly during the motor tests, which are similar to daily activities, are not in line with the responses presented in the SF-36.

In the study by Ribeiro, et al. [43] he reveals the perspective of the elderly themselves when they say that they only admit that they are aging when they perceive the loss of autonomy and their weakened health, thus incapacitating them to perform their daily activities of life. Most do not show concern for the physical appearance and chronological age itself.

Functional capacity is related to a person's propensity to Perform Activities Of Daily Living (ADLs) independently [44]. As the chronological age increases, there is a tendency for people to be less active, reducing their functional capacity, thus increasing their degree of dependency to perform their basic activities, such as dressing, putting on shoes, brushing teeth, bathing, feeding, among others (Vale, 2005). Decreased functional capacity is largely due to the disuse of sedentary lifestyle, which can be improved by regular exercise or adoption of a more active lifestyle, by delaying the harmful effects caused by the aging process [45], and assisting in the treatment or control of chronic-degenerative diseases, maintenance of locomotive functions, better performance in the activities of daily living and a greater degree of independence and autonomy, allowing the elderly to remain active and with a good quality of life. life [46]. Therefore, health considered ideal for the elderly results from the interaction between physical and mental conditions, independence in daily life, social integration, family support and the economic situation. Well-being in old age would therefore be the result of the balance between the various dimensions of functional capacity, without, however, meaning absence of problems; Thus, the functionality of the elderly is dimensioned in terms of ability and independence to perform certain activities [47,48].

Conclusion

We conclude, at the end of the study, that the elderly of Lago das Pedras (MA) present a good result when it comes to the values corresponding to the quality of life, in several domains. However, the Vitality and Functional Capacity domains, being the focus of the study, stood out for establishing a high positive correlation with the General State domain of the SF-36 Quality of Life Questionnaire. However, when we identified the Functional Capacity, through the GDLAM Protocol, we verified that in the motor tests Walk 10 meters (C10m), Rise from Ventricular Decubitation Position (LPDV), Get up from the Chair and Walk Around the House), Getting up from sitting position (LPS), dressing and taking off shirt (VTC), the results achieved by the elderly were considered "weak" in the classification.

We conclude, then, that the perception of the elderly expressed through the instrument of evaluation of the quality of life are not consistent with the answers obtained by them in the execution of tasks that represent the functional capacity of the elderly in the accomplishment of the activities that they perform in their daily lives.

We cannot rule out that new studies on the subject should be carried out, including different protocols that are scientifically validated, and other variables related to the functional capacity and the quality of life of the elderly, in order to reveal more fully these components that are so relevant for health during the senescence.

Acknowledgement:"This study was approved by the Ethics Committee of the Hospital Universitário do Maranhão (CEP/HU / UFMA) with the opinion, number 276/2011 and Resolution No. 196/96 of the National Council All participants signed a previously the Free Consent Form and Clarified (TCLE)."

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