

# Sociodemographic Profile and Quality of Life of Active Older Adults Belonging to a Physical Exercise Program and Sedentary Elderly, Linked to a Basic Health Unit

ORIGINAL

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## Abstract

**Objective:** To identify the sociodemographic profile and to compare the quality of life of elderly people who practice physical exercises in a group with sedentary elderly.

**Methods:** This is a cross-sectional study with a quantitative approach, composed of two groups: Group I consisted of 50 elderly people practicing physical exercise in a group; and Group II composed of 50 sedentary elderly. Data were collected through two questionnaires; one questionnaire focused on the sociodemographic data survey and the SF-36 quality of life questionnaire. The data were analyzed by the BioEstat 5.0 program using the Z-Test.

**Results:** Group I had better scores in the domains, limitations due to physical aspects and general health, in the other domains, group II had better scores. Factor that can be attributed to the modality of the physical exercise performed by group I that was in the group I and by the form of the allocation of the sample.

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**Conclusion:** The women were mostly in group I, and both groups were comprised of seniors over 61 years old, widowers and retirees. Statistically, only the general state of health showed a significant difference between the two groups.

**Keywords**

Health of the Elderly; Quality Of Life; Motor Activity.

## Introduction

By the increasing longevity of the world population, the major challenge of health policies for the elderly is the provision of assistance to a population of more than 32 million elderly people, mostly individuals with low socioeconomic and educational levels and high prevalence of chronic and incapacitating diseases, in which healthy aging becomes the result of the multidimensional interaction between physical health, mental health, independence in daily life, social integration, family support and economic independence [1, 2].

The limitation of the routine activities of the elderly brings a feeling of incapacity, disability, and devaluation, feelings that can trigger several psychological problems, such as depression. In this scenario, the elderly face new needs who require adaptation and space in contemporary society, so that they live longer and with the quality of life, involving health professionals with responsibility for health promotion and longevity with quality of life [3].

The practice of physical exercise[4] is one of the resources used to promote health that can provide the elderly with a better quality of life, more autonomy in the performance of activities and greater independence. Therefore, when performed according to the needs of senescence and respecting the physical limit of the elderly, it is possible to improve the quality of life of the elderly [5].

Physical exercise, directed at special groups, can delay the losses resulting from the aging process by generating motor, organic and social improvements, with increased serum levels of endorphins, increased emotional control and promoted social interac-

tion, better self-esteem, control of their self-image and less likely to develop emotional illnesses such as depression [6].

In this context, this study aimed to identify the sociodemographic profile and to compare the quality of life of elderly people who practice physical exercises in a group with the sedentary elderly, linked to a basic health unit.

## Methods

This is a cross-sectional, descriptive study carried out with a quantitative approach, approved by the Research Ethics Committee of the Federal University of Maranhão-CEP/UFMA, protocol number 1.165.116. The survey was conducted between March and April 2015.

A non-problematic sample was used, with two groups of elderly. Group, I was composed of 50 elderly people regularly enrolled in the space "Vidas Florescentes" and practicing group exercise. The activities of the group are performed daily for 60 minutes, where stretching and muscle strengthening exercises and aerobic training are performed through dance. The group has 100 elderly people, and they are guided by a physical education professional.

Group II consisted of 50 sedentary elderly individuals for more than six months, regularly enrolled in a basic health unit in the municipality of Imperatriz, in the State of Maranhão. The inclusion of the elderly in the sample was carried out for convenience, on visiting days both institutions (always on Thursdays). All the elderly who accepted to participate in the

study and did not present cognitive deficits were included. Elderly people who requested to withdraw their participation during the research were excluded, either by their volition or by their relatives.

Two structured questionnaires were used: the first one dealt with sociodemographic data, containing questions related to age, gender, education, marital status, history of diseases, use of medications; The second included the assessment of the quality of life using the Short Form Health Survey-36 (SF-36). This questionnaire consists of 36 items, distributed in eight domains (functional capacity, physical aspects, pain, general health, mental health, vitality, social aspects and emotional aspects). For each domain, the results of the items were coded, grouped and the mean of each domain was verified, where on a 0 to 100 scale, zero represents a worse quality of life and 100 a better quality of life.

After collection, the data were analyzed by the BioEstat 5.0 program, and the parametric test, Z test was applied. The significance level adopted for the statistical analyses was 5% (p=0.05).

## Results

Of the 100 elderlies, 79% were women, and only 21% were men. The elderly of group I had 98% of elderly women, 47% of age group greater than 60 years old, 40%, married, prevailed the participation of the elderly with low level of education, where 76% had education from 0 to 8 years of study, 68%, retirees 68% with family income of up to 1 minimum wage (**Table 1**).

The elderly in group II were composed mostly of women, 85% of the sample, 50%, married, 92%, with education between 0 and 8 years of studies, 69% retired, and 78% with a family income of up to 1 minimum wage (**Table 1**).

The active elderly people have a higher level of education when compared to the sedentary elderly, and both groups are mostly elderly women, thus indicating that the elderly population is mostly women.

**Table 1.** Distribution of sociodemographic variables of the elderly assisted in the research.

Variables Category	Group I		Group II		Total	
	n	%	n	%	n	%
Gender						
Male	01	02	20	40	21	21
Female	49	98	30	60	79	79
Age group						
60	03	06	12	24	15	15
≥61	47	94	38	76	85	85
Marital status						
Single	03	06	01	02	04	04
Married	20	40	30	60	50	50
Stable Union	02	04	07	14	09	09
Divorced	10	20	-	-	10	10
Widow	15	30	12	24	27	27
Education (years of study)						
0 - 8	38	76	46	92	84	84
9-11	06	12	04	08	10	10
≥12	06	12	-	-	06	06
Occupation						
Housemakers	12	24	08	16	20	20
Retired	34	68	35	70	69	69
Employed	04	08	07	14	11	11
Family income						
01 minimum wage*	21	42	39	78	60	60
02-04 minimum wage	19	38	10	20	29	29
≥ 05 minimum wage	10	20	01	02	11	11

\*: In the year of the study, the current minimum wage was R\$ 788.00, equivalent to U\$ 308.87.

According to **Table 2**, most of the participants have concomitant diseases independent of the group. Group I is the one that makes the most use

**Table 2.** Distribution of variables regarding the use of medications and concomitant diseases of the elderly..

Variables Category	Group I		Group II	
	n	%	n	%
Use of medication				
Yes	43	86	39	78
No	07	14	11	22
Concomitant diseases				
Yes	38	76	39	78
No	12	24	11	22

**Table 3.** Distribution of the reason for practicing physical exercise.

Variables Category	Group I	
	n	%
Reason		
Medical indication	11	22
Feeling good	21	42
Improving health	18	36

**Table 4.** Distribution as the reason for not practicing any physical exercise.

Variables Category	Group I	
	n	%
Reason		
Do not like it	19	38
Lack of company	02	04
Lack of time	03	06
Service is sufficient	01	02
No need	06	12
Physical limitation	19	38

**Table 5.** Comparative analysis of the quality of life of elderly practicing physical exercise and sedentary elderly individuals, based on the SF-36.

Variables Category	Group I		Group II		P
	Score <sup>1</sup>	SD <sup>2</sup>	Score <sup>1</sup>	SD <sup>2</sup>	
Marital status					
Functional capacity	63.6	23.36	68.5	22.43	0.2848
Limitations by Physical Aspects	68	36.03	65	43.44	0.4908
Pain	41.72	21.42	44.42	19.40	0.5090
General Health Status	59.86	11.92	53.54	9.80	0.038 <sup>3</sup>
Vitality	53.9	13.89	54.7	12.87	0.7551
Social aspects	51.25	13.18	53.25	10.65	0.4041
Limitations for Emotional Aspects	76.486	34.74	76.66	37.65	0.9808
Mental Health	54.88	12.62	58.04	8.40	0.1406

<sup>1</sup>: Average obtained. <sup>2</sup>: Standard deviation. <sup>3</sup>: p<0.05

of medications, being possible to verify that five of the elderly use medications without presenting concomitant diseases. Hypothetically, this group seeks alternative means to alleviate the problems caused by the disease through physical exercise (**Table 3**).

**Table 3** indicates the reason for the elderly's adherence to physical exercise, being evidenced in the research that the main reason for participation in the group physical exercise program is to feel good, corresponding 42% of the elderly. As in the literature, physical exercise provides the elderly with a greater disposition to perform their daily activities; 36% practice physical exercise because they like it and because they are aware that regular physical exercise has great value in their health in general; 22% reported doing it by medical indication, due to functional limitations, to restore health.

**Table 4** shows that the main reasons for the elderly in group II did not practice some physical exercise were: they did not like to exercise (38%), physical limitation (38%) and no need (12%).

The quality of life, evaluated through the SF-36, revealed that, due to limitations in physical aspects, group I had a higher score (68) when compared to group II (65), showing that physical exercise improves physical aspects, but did not show statistically significant (p=0.4908). In the pain domain, group I had a lower score (41.72) than group II (44.42), even though it did not present a significant difference (p=0.5090). This suggests that the physical exercises performed may have aggravated the pictures of the elderly. On the other hand, the general health domain obtained significant improvements when comparing the two groups. This domain evaluates how the patient feels in general. Group, I presented a mean of 59.86 about group II, which had a mean of 53.54, it is possible to verify that group I presented higher scores, a result that can be reaffirmed by statistical analysis (p=0.038).

In the other domains, such as vitality, social aspects, limitations due to emotional aspects and mental health, when the scores were analyzed, group II showed better results than group I, even though the statistical analysis showed no significant difference between the groups. In the emotional aspects domain, there was an approximation between the two groups of elderly, but there was no statistical significance (**Table 5**).

From these results, it is pointed out that these results were due to the modality of the physical exercise program, because, with the activity performed in a group, the exercises did not meet the individual needs of the elderly.

## Discussion

The socio-demographic data identified in this study corroborate with the other studies like this one, corroborating with the study by Santana<sup>7</sup> and de Pires et al [8], which identified female predominance in physical exercise practitioners. This factor shows that the elderly woman is still the one who is most concerned about health when compared to the man.

For Paes et al [9], the elderly who have partners showed greater ease to perform physical exercise because the presence of the spouse is a stimulant for the development of healthy habits. Pereira [10] relates the lack of adherence to physical exercise groups due to health and/or loss of the spouse. These data do not match those found in this study (Table 1).

In this study, it was observed that the group of elderly people in the group physical exercise program used more drugs than the sedentary elderly group. Considering that both groups were composed of elderly patients with concomitant diseases, it is suggested that the frequent use of medications may have led the elderly to seek physical exercise. However, five of the elderly in group I were taking medication without presenting any disease. The

aging process favors the appearance of chronic degenerative diseases that are difficult to heal only with physical exercise, and it is necessary to adhere to the drugs [11].

As for a reason for practicing physical exercises, it is observed that the elderly are more concerned about their health, and increasingly seek spontaneous means to achieve active, healthy and quality of life. Thus, the data found in this study corroborate the findings of previous studies, in which the greater percentage of elderly people who practice physical exercises know of its importance in maintaining health, and seek to participate in the activities because they think they will improve their health and continue to feel as well as being part of the medical treatment [12].

The increase in age arises from the need to seek means to improve the quality of life since the sedentary lifestyle contributes as a risk factor for the development of several chronic diseases [13]. A sedentary lifestyle is a risk factor for triggering neurodegenerative diseases, which may compromise the quality of life of the elderly people. Studies show that in the active elderly, the index of chronic diseases is lower when comparing with the sedentary elderly. Elderly people with chronic diseases and those who are practicing physical exercise have a better functional capacity and better quality of life since physical exercise helps in the treatment and reduces the need or the use of medications [14].

According to the survey, it was observed that the resistance to not performing physical exercises was due to some physical, social and financial limitations due to the difficulty of moving to the centers of specialized references to the health of the elderly. However, it is worth mentioning that physical exercise, when directed to the needs and limits of the practitioner, contributes significantly to the quality of life of the elderly, and is an important factor for the maintenance of health [15].

Sedentary seniors are still resilient when it comes to practicing physical exercise, while spontaneously

seeking specialized services to improve their quality of life, others tend to resist and insist on continuing in inappropriate habits. The lack of adherence of the elderly who do not practice physical exercise is due to factors related to health, such as physical limitations, fatigue, old age; as well as psychosocial factors, such as lack of motivation, dislike, and excessive daily attributions [10].

Regarding the comparative analysis of the quality of life of active and sedentary elderly people in this present research, it is possible to verify that in some domains of quality of life both groups presented low scores and, in general, group II presented a better quality of life when compared to group I.

The physical limitations include limitations on the type and amount of activity as well as the difficulties of performing them in the ADLs [15]; and the reduction of these limitations can be reduced with the practice of physical exercise, as it can be observed that in group I higher scores were found about group II.

## Conclusion

Women were the majority in group I, and both groups were comprised of seniors over 61 years old, widowers and retirees. It was also concluded that most of the elderly who practice physical exercises seek the activity to improve their health status. Statistically, only the general state of health showed a significant difference between the two groups.

Further studies are needed to evaluate the influence of physical exercise in group and individual on the quality of life of the elderly, requiring the application of isolated or associated sports modalities. Therefore, it is necessary to conduct longitudinal studies, through the random allocation of participants and specific physical exercises, to evaluate the quality of life of the elderly.

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