

Functional capacity of elderly people attending the Family Health Program at Viveiros, Feira de Santana, Bahia, Brazil

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ABSTRACT

As people grow older, their functional losses become more and more evident. The elderly will progressively stop performing basic activities of life, thereby decreasing his/her functional capacity - measured in terms of his/her independence and ability to perform certain daily activities.

Objective: To assess the functional capacity of elderly people attending the Family Health Program ("*Programa Saúde da Família*") in the neighborhood of Viveiros, Feira de Santana, Bahia.

Method: This study is a cross-sectional research with a quantitative approach. The sample consisted of 34 male and female patients, aged 75. We conducted home visits to each of these elderly persons in order to apply three types of test: the Barthel Index, the Lawton Index and the Mini

Mental State Examination. **Results:** The results show that 54.5% of these elders were found to be independent according to the Barthel Index, 51.5% were totally dependent according to the Lowton Index and 87.9% have some type of cognitive impairment according to the Mini Mental State Examination.

Conclusion: Professionals working in the Family Health Program have to pay attention to the health status of the elderly, developing their care plan in accordance with the elderly's actual needs. We hope that the interest of other researchers about the proposed topic will be raised, in order to increase the availability of research (currently scarce) in this area of knowledge, so that the elderly will receive more adequate attention and counseling, by expanding the range of services and programs available to them.

Keywords: activities of daily living, aging, family health program, frail elderly

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Received on November 19, 2012.

Accepted on March 14, 2013.

DOI: 10.5935/0104-7795.20120037

INTRODUCTION

Lately we have observed an increase in the elderly population in Brazil, as a growing percentage of Brazilians has achieved and have enjoyed this stage of their life cycle for a longer period thanks to increased life expectancy and accelerated ageing of Brazilian population along the last decades. This change in our demographic profile - which started in the second half of 1970's, with a decline in birth rates - indicates that, by 2025, there will be approximately 30 million elderly people living in Brazil - 15% of its total population.¹

By September 2004, the Brazilian state of Bahia had an estimated population of 1,109,487 elderly people 60 years and older, 34,499 of them living in the city of Feira de Santana.² This city is located in the planes between "Reconcavo Baiano" and the semi-arid tablelands of the northeastern region of Bahia. According to the 2010 census, this city - whose population was about 4000 inhabitants by the 19th century - currently has nearly 556,756 inhabitants.³ Feira de Santana has not addressed successfully the issue of its elderly population and their needs, as shown by the low priority given by several managers to public policies for the elderly.⁴

Concerning assistance for elderly people, the state-funded healthcare program "Saúde da Família" (PSF), according to its basic principles, is focused on addressing the physical changes in the elderly population and on the early detection of pathologic alterations. PSF also stresses the importance of raising awareness in the local community about risks factors related to elderly people - e.g. domestic accidents and falls - and identifying ways of intervention to eliminate and minimize these risks.⁵

As people grow older, their functional losses become evident and there are few articles addressing the difficulties faced by elderly people performing basic activities of life, caused by the decrease of their functional capacity. This scenario points out to a huge discussion about disabling events and the need to preserve the elderly's autonomy and independence, namely for basic and instrumental activities of daily life and independence concerning functional capacity.⁶

In this study we assessed the level of functional capacity of elderly people served by "Programa Saúde da Família" ("Family Healthcare Program") in the neighborhood of Viveiros (Feira de Santana, Bahia, Brazil) considering that the knowledge of the healthcare status of elderly people is

a crucial factor to adequate the existing healthcare service to their specific needs.

OBJECTIVE

The objective of this study is to assess the functional capacity of elderly people attending "Programa Saúde da Família" ("Family Healthcare Program") in the neighborhood of Viveiros, Feira de Santana, Bahia.

METHOD

This is a descriptive, cross-sectional field study with quantitative approach. Our survey was performed in the local healthcare facility of "Programa Saúde da Família" ("Family Healthcare Program") located on Rua Dois, w/o number, neighborhood of Viveiros, in the city of Feira de Santana, Bahia, Brazil. This clinic serves people who voluntarily seek medical (various specialties) and nursing care, as well as people who are visited by healthcare community agents at home and referred to this clinic. There are 107 elders registered at "Programa Saúde da Família" in this clinic. We included in this study every person aged 75 and above who manifested willingness to participate by signing a Free, Prior Informed Consent Form - a total of 34 people. Elderly people unwilling to take part in this study and/or younger than 75 y.o. were excluded. Four home visits were performed by the researchers in order to collect biodemographic data and to apply the Barthel Index, the Lawton Index and the Mini Mental State Examination tests in order to assess the functional capacity of these elders. It is important to notice that the researchers received specific training before applying the tests to the elderly subjects.

The Barthel Index is a validated scale used to assess the activities of daily living (ADL) elderly people are capable of performing in their everyday life, based on the results that vary from 0 to 100% according to the level of independence shown on performing different functions.⁷

The Lawton Index measures the inability of a subject to perform instrumental life activities, providing indications about his/her autonomy. Its higher score is 24 points.⁸ The Mini Mental State Examination (MMSE) provides information about several cognitive parameters.⁹

Data were analyzed using a descriptive survey in order to assess the percentage of elderly people. The SPSS (Statistical Package for the Social Sciences) software, version 13.0

was used to analyze the results. In addition to that, tables with simple frequencies and percentages were drawn using Microsoft Excel. We did not cross the data obtained from Barthel, Lawton or Mini-Mental scores.

Functional assessment of elderly people using these scores was performed only after due approval and authorization by the Research Ethics Committee of Faculdade Adventista de Fisioterapia (Adventist Faculty of Physical Therapy) - CAAE 0021.0.070.000-11.

The criteria established by Brazilian law according to Resolutions n^o 196/96 and 251/97 (issued by Brazilian National Council of Health - "Conselho Nacional de Saúde") were respected during the conduction of this research. This project was submitted to the Research Ethics Committee of Faculdade Adventista de Fisioterapia (Adventist Faculty of Physical Therapy); after its approval, a Free, Prior Informed Consent Form has handed in to the subjects, informing him/her about the social and scientific relevance of the topic discussed in this study and ensuring to them the reliability and confidentiality of the information provided, guaranteeing the absolute secrecy since the identification of the subjects was not requested for this study. The elderly subjects were benefitted with the assessment of their instrumental activities, daily life activities and cognitive parameters.

RESULTS

Out of the 34 elderly subjects evaluated, 44.1% (15) were male and 55.9% (19) were female; 35.3% (12) were married and 64.7% (22) lived with relatives - children, siblings or other; 55.9% (19) received government pensions and 44.1% (15) do not receive government pensions, living on the income provided by their spouse, children or other relative. Regarding health conditions, 52.9% (18) had high blood pressure, 14.7% (5) had diabetes and only 8.8% (3) declared not to suffer any health condition; 11.8% (4) of these elders were bedridden.

Barthel score (Table 1) shows that 18 (52.9%) out of the 34 subjects assessed were totally independent to perform their daily activities; 11 (32.4%) were partially independent and 5 (14.7%) are fully dependent.

Using the Lawton Index (Table 2) we observed that 17 elder persons (50%) were totally dependent to perform these activities, 10 (29.4%) were independent and only 7 (20.6%) were capable to perform the activities with some assistance.

The Mini Mental State Examination (Table 3) showed that most of these elderly persons - 29 (85.3%) - presented some degree of cognitive deficit, only 01 person (3.0%) presented non-significant alterations and 4 subjects (11.8%) had their cognitive functions preserved.

DISCUSSION

The assessment of the functional ability of these elderly people showed that, according to the Barthel Index (Table 1), most of them are independent to perform their activities, having their functional ability preserved. When compared to Minosso's study, 63% of the elderly persons were independent and only 2% were totally dependent.¹⁰ Converso & Lartelli¹¹ found that 75.65% of the elderly people assessed were independent. Guedes & Silveira,¹² using the Barthel Index with elderly people in the city of *Passo Fundo* (state of *Rio Grande do Sul*, Brazil), observed a prevalence of independent subjects, corresponding to 59.63% of the analyzed population.

When assessing instrumental daily life activities (Table 2) we observed that, on the contrary of the Lowton Index, most of the elderly persons presented dependence. It is convenient to remember that, usually, the

patient is able to perform the activities, but chooses not to perform them or does not perform them due to environmental factors or to issues related to the roles he/she has assumed along his/her life.¹³ Compared to the study by Guedes et al.¹⁴ 58.1% were totally dependent to perform instrumental daily life activities and no elderly subject declared to be fully dependent for all activities, which, according to the author, can be a specific trait of elderly people from that community. The fact that 41.9% of the subjects did not present Independence for all activities is consistent with data presented by the Older Persons Council (*Conselho Estadual do Idoso*) of the State of *Rio Grande do Sul*, which emphasizes that 40% of the elderly population needs some assistance to perform at least one daily life activity. The study by Jahana & Diogo¹⁵ found, using the test of functional ability, that the elderly persons assessed were unable to or needed some help to perform one or more instrumental daily life activities.

On the assessment of cognitive functions in the elderly using Mini-Mental State Examination (Table 3), we notice that most of them present some degree of cognitive deficit. Comparing to the study by Santos¹⁶ there was a prevalence of cognitive deficit of 68.4% for elderly persons older than 80. Castro & Guerra,¹⁷ analyzing the impact of cognitive

performance upon the functional capacity of elderly persons in Northeast Brazil, found that the MMSE scores were lower in elderly people who had difficulty performing DLAs, therefore demonstrating that the lower the cognitive performance, the higher the functional disability. Converso & Lartelli¹¹ did not find the same equivalence in their study with institutionalized elderly persons, since age did not show any influence upon MMSE. Such a finding can be explained by the higher percentage of literate elderly persons in the institutions where their study was conducted - a total of 49.56%. On the contrary, only 26.9% of the elderly persons in the present study were literate.

Regarding the data obtained from the present study, we notice the importance of training for the healthcare professional working on the "*Programa Saúde da Família*" to be able to deliver an integral, continuous and humanized healthcare assistance to the elderly population in order to improve their quality of life and promote health. It is important to identify the most frequent aggressions and make interventions to deal with them, as well as to promote strategies for actions in rehabilitation focused on recovering, addressing the real needs, in order to preserve the independence of the elderly people to perform their daily activities.

The limitations of this study are due to the small population analyzed, since only elderly people aged 75 or older were recruited for this study, and to the cutline score for functional independence levels - although these scores are frequently used in literature, since these questionnaires analyze various aspects, the patient may be evaluated as dependent for some activities and dependent for others; therefore, the very assessment scores may generate an inaccurate interpretation.

Table 1. Distribution of the results obtained using the Barthel Index to assess the functional ability of elderly persons attending *Programa Saúde da Família* in *Viveiros, Feira de Santana - Bahia, Brazil*, 2011

Barthel Index results	N	%
Independent (more than 70)	18	52.9
Partially independent (69 to 40)	11	32.4
Dependent (less than 40)	5	14.7

Table 2. Distribution of the results obtained using the Lowton Index to assess the functional ability of elderly persons attending *Programa Saúde da Família* in *Viveiros, Feira de Santana - Bahia, Brazil*, 2011

Lowton Index Results	N	%
Independence (23 to 27)	10	29.4
Ability with help (16 to 22)	7	20.6
Dependence (9 to 1)	17	50

Table 3. Distribution of the results obtained using the Mini-Mental State Examination to assess the functional ability of elderly persons attending *Programa Saúde da Família* in *Viveiros, Feira de Santana - Bahia, Brazil*, 2011

MMSE Score Results	N	%
Cognitive functions preserved (27 to 30 points)	4	11.8
Uncertain or alterations that do not suggest deficit (24 to 26 points)	1	3.0
Suggestive for cognitive deficit (23 points or less)	29	85.2

CONCLUSION

Daily Life Activities (DLAs) present some degree of complexity for elderly people, namely for those people with health problems. Thus, many elderly people are capable of performing all indoors DLAs, but feel unable to do any activity in places he/she is not used to attend¹⁷.

Most of the elderly people in our study were classified as independent according to Barthel Index; also, they were classified as dependent to perform instrumental daily life activities and most of them presented some degree of cognitive deficit. This fact draws our attention to the issues faced by older people

and emphasizes the need to ensure conditions to enable people to grow old with dignity.

Living has relevant implications for quality of life. Increased life expectancy, in this sense, may represent a problem with several repercussions on physical, psychological, economic and social aspects of human life. These years added to life may not represent an extension of a fully meaningful life, but rather a time of disappointments and anguish. In this sense, researches on aging and its implications on the lives of elderly people are fundamentally important in our current social context.¹⁸

We hope this study may enable other researchers to become interested in this subject, therefore increasing the currently scarce research in this area of knowledge so that elderly people with some functional deficit may be provided with more assistance and guidance, and the amount of services and programs available to them may be increased.

ACKNOWLEDGEMENTS

Our thanks to Prof. Dr. Maria Lúcia Servo who did not hesitate in enlightening us with her brilliant ability. Also, our appreciation to the community agents and the elderly persons in Viveiros who made possible the realization of this study.

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