



Sociodemographic and clinical profile of elders who receive Care in a Family Health Unit*

Perfil sociodemográfico e clínico de idosos atendidos em Unidade Básica de Saúde da Família

Perfil sociodemográfico y clínico de adultos mayores atendidos en una Unidad Básica de Salud de la Familia

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ABSTRACT

Objective: To characterize the sociodemographic and clinical profile of elders who receive care in a family health unit. **Methods:** A cross-sectional, exploratory study was conducted in Fortaleza, CE. The sample consisted of 214 elders. The data were collected from September through December 2006 using a specific demographic questionnaire during the interviews. **Results:** The findings were similar to those reported by other studies; the majority of elders were female and were living alone or in families with three generations. Osteoarthritis was the most common self-reported disease. In addition, according to the Body Mass Index (BMI), most elders were obese. **Conclusion:** This study provides indicators that can be used for planning of actions to prevent diseases and to promote elders' health.

Keywords: Health of the elderly/epidemiology; Family health; Aging

RESUMO

Objetivo: Conhecer o perfil sociodemográfico e clínico de idosos atendidos em Unidade Básica de Saúde da Família. **Métodos:** Estudo epidemiológico de corte transversal realizado em Fortaleza-CE e com amostra de 214 idosos. A técnica de coleta de dados utilizada foi a entrevista com aplicação de um formulário no período de setembro a dezembro de 2006. **Resultados:** Os achados apresentam semelhanças com outros estudos realizados com idosos, como exemplo, a predominância do sexo feminino, todavia, revelou dados peculiares, no que diz respeito aos idosos que residem sozinhos e em famílias com três gerações. As doenças mais prevalente foram a hipertensão arterial e a osteoartrose, dados relativos ao Índice de Massa Corpórea revelaram altos percentuais de obesidade. **Conclusão:** A realização deste estudo forneceu indicadores para o planejamento de ações de prevenção de doenças e promoção da saúde dos idosos.

Descritores: Saúde do idoso/epidemiologia; Saúde da família; Envelhecimento

RESUMEN

Objetivo: Conocer el perfil sociodemográfico y clínico de adultos mayores atendidos en una Unidad Básica de Salud de la Familia. **Métodos:** Se trata de un estudio epidemiológico de corte transversal realizado en Fortaleza-CE con una muestra de 214 adultos mayores. La técnica de recolección de datos utilizada fue la entrevista con la aplicación de un formulario en el período de septiembre a diciembre del 2006. **Resultados:** Los hallazgos presentan semejanzas con otros estudios realizados con adultos mayores, como ejemplo, el predominio del sexo femenino, aun, reveló datos peculiares, en lo que se refiere a los adultos mayores que residen solos y en familias con tres generaciones. Las enfermedades más prevalentes fueron la hipertensión arterial y la osteoartrosis y los datos relativos al Índice de Masa Corporal revelaron altos porcentajes de obesidad. **Conclusión:** La realización de este estudio ofreció indicadores para la planificación de acciones de prevención de enfermedades y promoción de la salud de los adultos mayores.

Descriptores: Salud del anciano; Salud de la familia; Envejecimiento

* Study developed at a Basic Family Health Unit in Fortaleza (CE), Brazil.

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INTRODUCTION

Today, Brazil is an aged country, considering that the Pesquisa Nacional por Amostra de Domicílios - The National Research by Domicile Sample (PNAD), performed in 2005, revealed that there are over 18 million people aged 60 years or more, which corresponds to about 10% of the total population. According to the World Health Organization (WHO), a country is considered structurally aged when its percentage of aged people, i.e. individuals aged 60 or more for developing countries and 65 or more for developed countries, is above 7% of the total population⁽¹⁻⁴⁾.

Whatever the health indicator that is studied, people aged of 60 or more will always present higher morbidity rates and greater proportions of illnesses and medical procedures when compared to the other age groups because, generally, their diseases are chronic, multiple, require constant follow-up and continuous medication use⁽⁵⁻⁶⁾.

Elderly health services should prioritize strategies that would make it possible for aged people to live a healthier life, in addition to monitoring indicators capable of evaluating morbidity, the impact of disease and/or disability on their own and their family's quality of life. One of the actions that could contribute to achieve a more active and healthy ageing process is a situational diagnosis of the living conditions of the elderly⁽³⁾.

In this sense, the objective of the present study was to learn about the sociodemographic and clinical profile of the elderly seen at a Basic Family Health Unit (BFHU).

METHODS

This is a cross-sectional epidemiological study performed at a BFHU in Fortaleza, a city in the state of Ceará, Brazil.

The study population consisted of the elderly seen at the BFHU. Individuals were considered to be aged according to the definition in article 2 of Brazilian Law n.º 8.842/94: people aged 60 years or more⁽⁷⁾.

The population was selected using the files of the Sistema de Informação em Atenção Básica - *Basic Care Information System* (SIAB), which is a health management information network that aims to allocate mandatory registration data of the families followed by the Family Health Program⁽⁸⁾.

It was observed that the BFHU followed 5,149 families, about 23,520 people, of which it was estimated that 1,890 were aged individuals, considering an 8% prevalence of individuals aged 60 years or more. The case group was calculated based on the statistical formula for finite populations, which resulted in a sample of 214

elderly.

The data collection period went from September to December 2006. Data collection was performed on a daily basis, in the mornings and afternoon, including the elderly who attended the BFHU for any kind of service and met the inclusion criteria.

The established inclusion criteria were the following: age equal to or above 60 years, agree to participate in the study, practice physical activity regularly or not, not present dementia. The exclusion criteria were: people who did not agree with the inclusion criteria. Subjects were randomly selected when attending the BFHU. It should also be highlighted that there was no sample loss.

A data collection form was used to characterize the study subjects, which included sociodemographic, clinical, anthropometric, physiologic and biochemical variables: sociodemographic (age, education, marital status, occupation, who they live with, and family income expressed in minimum wages); anthropometric and physiologic (weight, height, body mass index-BMI, waist-hip ratio (WHR), blood pressure; biochemical (glycemic index). The elderly were also asked about having any chronic diseases.

For the variables concerning BMI, glucose, blood pressure and WHR, the following parameters were used:

- BMI was rated as normal if between 18.5 – 24.5, overweight 25.0-29.9, class I obesity for 30.0-39.9, class II obesity for 35.0-39.9, and class III if ≥ 40.0 (9);
- glucose levels were evaluated by random capillary glucose (measured without the need for fasting) to track Diabetes Mellitus (DM), standardized by the Ministry of Health, which presents the following classification: normal for < 140 mg/dl; dubious: 141-199 mg/dl; probable DM: 200-269 mg/dl; very probable DM ≥ 270 mg/d⁽⁹⁾;

- blood pressure values were evaluated according to the classification by the III Brazilian Consensus on Arterial Hypertension;

- the WHR indicates the relative contribution of fat in adults and the risk for disease. According to the WHO, the cut-off point for disease risk in women between 60 and 69 years old is low if under 0.76, moderate if between 0.76 – 0.83, high 0.84 – 0.90, very high > 0.90 . On the other hand, for men of the same age, the risk values are low if < 0.91 , moderate for 0.91 – 0.98, high for 0.99 – 1.03, very high > 1.03 ⁽¹⁰⁾.

Although the previously described cut-off points, used to evaluate the WHR, did not include ages above 69 years, these parameters were also used by other researchers who evaluated the WHR in the elderly, such as Da Cruz, Almeida, Schwanke, Moriguchi⁽¹¹⁾ and Sampaio & Figueiredo⁽¹²⁾.

The elderly who agreed to participate in the study signed the Free and Informed Consent Form and were

sent to a private room provided by the institution. All data regarding the elderly were collected on a single day, directly from them. The form was administered in two stages: the first addressed the sociodemographic data and the second surveyed the anthropometric, physiologic and biochemical data. This evaluation was performed as follows:

- the body weight in kilograms was obtained with the elderly barefoot, using a anthropometric scale (Filizola®), with a precision of 0.1kg; used exclusively for the study;
- the height was measured in meters, using a metallic rod scaled in 0.5cm, with the elderly barefoot and standing on the scale platform, looking straight forward and with their heels together (touching);

- capillary glucose was measured in mg/dl and without the need for fasting, using a glucose meter (*Prestige*®);

- blood pressure was measured on their right arm, with a 12 cm x 13 cm x 23cm cuff, sitting, and after resting for at least five minutes; and

- the waist was measured using an inelastic measuring tape and considering the smallest circumference between the lower costal limit and iliac crests, and the hip was measured at the level of the greater trochanters.

The collected indicators were stored using an electronic spreadsheet in order to perform descriptive and inferential analyses, using Excel 97 and the Statistical Package for Social Sciences (SPSS). The sample was described using tables with absolute and relative frequencies, means and standard errors.

Data collection was initiated after the project was approved by the Research Ethics Committee of the Complexo Hospitalar da Universidade Federal do Ceará.

RESULTS

The sociodemographic and clinical characteristics of the elderly are presented in the following tables.

According to Table 1, the ages ranged between 60 and 90 years, with an average of 68 years and standard error of 6 years. The age groups that concentrated the greatest number of aged persons were the 60-65 years group, with 79 individuals (36.9%), and the 66-71 years group, with 80 (37.4%).

In terms of their occupation, the 'other' category comprised individuals with occupations like babysitter, housekeeper, cosmetic sales, seamstress, embroiderer, mason and grocer.

As to their monthly income in minimum wages, it is important to highlight that the lowest income was \$200.00 and the highest was R\$2,300.00, with an average of R\$404.00. The elderly who reported the highest salaries were men – retired public servants who had military occupations.

Table 1 – Distribution of the elderly according to sociodemographic characteristics – BFHU, CE – Sept/ Dec 2005

Characteristics	Elderly		
	Number	%	
Gender			
Female	165	77.1	
Male	49	22.8	
Age (years)			
60-65	79	36.9	
66-71	80	37.4	
72-77	39	18.2	
78-83	12	5.6	
84-90	4	1.9	
Education			
Writes/Reads	109	51.0	
Does not write/read	105	49.0	
Marital status			
Married	106	49.5	
Widowed	68	31.7	
Separated	26	12.1	
Single	14	6.7	
Occupation			
Retired	129	60.2	
Pensioner	39	18.2	
Shopkeeper	7	3.2	
Cleaning and maintenance services	3	1.4	
Other	47	21.9	
Income (Minimum Wage)			
0.7 a 1	104	48.6	Mean: 1.3
1.2 – 1.5	70	32.7	SE:0.7
1.6 – 7.7	40	18.7	
Lives with			
Spouse, children and grandchildren	96	44.9	
Spouse, children	93	43.5	
Alone	25	11.7	

DISCUSSION

Most elderly participants were women (77.1%). The predominance of women over men corroborates the so-called "feminization of old age", since the female ratio in the old age group is growing in Brazil. A study performed in João Pessoa, a city in the state of Paraíba, confirmed this tendency and showed 79.7% of elderly women. Women also comprised 66% in a study about the epidemiology of ageing in Fortaleza, state of Ceará⁽¹³⁻¹⁴⁾.

The higher percentage of women in the studies is due to their longer longevity since, among other causes, they are less exposed to risk factors, such as smoking and drinking, in addition to the differences in attitude between men and women related to disease control and treatment⁽¹⁴⁻¹⁶⁾.

Income data revealed that the elderly have low salaries; most (48.6%) received between 0.7 and 1 minimum wage. This reality limits their access to service and consumer goods, such as adequate food and housing, and becomes worse when studies discover that most of them are breadwinners of their families⁽¹⁶⁾.

Table 2 – Distribution of the elderly according to their clinical characteristics, BFHU, Fortaleza-CE, Sept/Dec 2005

	Number	%	
Chronic disease			
Yes	182	85.0	
No	32	15.0	
Type of chronic disease			
Hypertension	125	68.6	
Heart disease	40	21.9	
Osteoporosis	35	19.3	
Osteoarthritis	82	45.0	
Other	39	21.4	
BMI			
Normal	65	30.4	Mean: 27.8
Overweight	80	37.4	SE: 4.5
Class I obesity	58	27.1	
Class II obesity	11	5.1	
WHR (cm) Females			
< 0.76	6	3.6	Mean: 1.06
0.76 – 0.83	49	29.8	SE: 0.34
0.84 – 0.90	55	33.3	
> 0.90	55	33.3	
WHR (cm) Males			
< 0.91	13	26.5	Mean: 0.97
0.91 – 0.98	14	28.6	SE: 0.11
0.99 – 1.03	13	26.5	
> 1.03	9	18.4	
Glucose levels (mg/dl)			
< 140	175	81.7	Mean: 114
141 – 199	29	13.6	SE: 52
200 – 269	10	4.7	
Systolic pressure (mmHg)			
< 130	81	37.8	Mean: 134
131 – 139	42	19.6	SE: 20
140 – 159	50	23.4	
160 – 179	34	15.9	
180 or more	7	3.3	
Diastolic pressure (mmHg)			
< 85	162	75.7	Mean: 78
85 – 90	4	1.9	SE: 11
90 – 99	36	16.8	
100 – 109	9	4.2	
>110	3	1.4	

As to their occupation, it was observed that 60.2% of the elderly were retired, followed by pensioners (18.2%). A study about the situation of the elderly in the Brazilian job market revealed similar data, showing that 68.4% were retired. Studies show that retirement and pensions are the main income source for Brazilian elderly⁽¹⁶⁾.

In terms of their marital status, 49.5% of the elderly were married and 31.7% were widowers. These data are similar to those found in studies by Coelho Filho and Ramos⁽¹⁴⁾, which found that 48.1% of the elderly were married and 36.8% were widowers. Santos et al⁽¹³⁾, however, found an inverse pattern, with 41.4% widowers and 39.8% married.

As for education, the sample could not be classified according to the years of education or education level. Regarding this variable, 49% said they could not read or

write. These data are in agreement with the results of studies about the educational profile of Brazilian elderly, which is generally poor⁽¹⁷⁻¹⁸⁾.

Their family situation showed that 44.9% of the elderly lived in a multi-generation home, with a prevalence of three-generation homes (living with their children and grandchildren), 43.5% lived with their children and/or spouses, and 11.7% lived alone. In the study by Coelho Filho e Ramos⁽¹⁴⁾, the percentage of elderly individuals living in three-generation homes was 35%, while 6.3% lived alone. On the other hand, Santos, Santos, Fernandes, Henriques⁽¹³⁾ found that 55.5% of the elderly lived in multi-generation homes, 27.3% lived with their spouses, and 14.8% lived alone.

Aged individuals living in multi-generation homes tend to be poorer and more dependent. This perhaps does not represent a cultural choice, but an arrangement to ensure the survival of the family members. The elderly living in a multi-generation family are usually widows with a very low income⁽¹²⁾. The fact that they co-habit with their grandchildren, often young children, can favor the priority that is given to child care to the detriment of elderly care, or the contrary. This occurs because both extreme ages require care and attention. The multi-generation home can also be a triggering factor for family relation crises, since many aged individuals who become responsible for looking after their grandchildren force themselves into performing an arduous routine, which they already lived with their own children⁽¹³⁾.

A significant percentage of aged individuals in the study (11.7%) live alone, but this fact does not represent a problem per se, since it can be their own choice. The WHO, however, considers this condition as a state of risk, considering the possibility of loss of autonomy, the risk of loneliness, and feelings of vulnerability⁽¹⁹⁾.

This study found that 85% of the aged individuals reported having chronic diseases, a percentage higher than that found in the PNAD, which was 62.9%⁽¹⁸⁾. A cohort study about the survival of aged people also found a smaller percentage, with 69.7% of aged individuals with chronic disease⁽¹⁹⁻²⁰⁾. An essay about ageing in the State of São Paulo, however, found a percentage close to that found in the present study: 90% of aged individuals with chronic disease⁽²¹⁻²²⁾.

The absolute number of women can justify the high percentage of chronic diseases found in this study, since gender has a strong explanatory power in the health condition reported by the elderly, especially perceived morbidity. Women usually have a better perception of diseases and a stronger tendency toward self-care^(18,23).

The most frequent chronic diseases were hypertension and osteoarthritis, confirming studies about morbidity in the elderly⁽¹⁸⁾. The prevalence of hypertension in the elderly in the study was 68.6%, which is similar to

the result found in a study about the prevalence of hypertension in the elderly performed in the city of Bambuí, state of Minas Gerais (61.5%). However, there was an expressive difference to observations for the aged population in Brazil based on PNAD (43.9%), in a study performed with aged individuals living in Campinas, São Paulo, which was 51.8%⁽²³⁾.

Despite the high percentage of hypertension found in the aged individuals (68.8%) under study, the changes in pressure values occurred more significantly in systolic pressure, with 84 (39.3%) of the elderly individuals presenting values above 139 mmHg and below 180 mmHg.

The percentage of hypertension found in this study can be related to the sample characteristics, because hypertension is more prevalent in women, in individuals with unfavorable socioeconomic conditions, poor education, overweight or obesity⁽²³⁾. All these characteristics are present in most of the aged individuals in the study.

The second most frequent chronic condition was osteoarthritis, with 45%. In the study performed in Bambuí, Minas Gerais state, the percentage found was 51.9%. As for the Brazilian elderly population, the percentage was lower (37.5%)⁽²⁰⁾.

In terms of the BMI, it was observed that 30.4% were overweight and 32.2% were obese, 27.1% of whom referred to class I obesity and 5.1% to class II obesity. A study about obesity, performed with 847 elderly individuals, revealed a value of approximately 33.1%⁽²²⁾. Da Cruz, Almeida, Schwanke, Moriguchi⁽¹¹⁾ studied the prevalence of obesity in the elderly and found a percentage of 23.3%.

The 32.2% of obese aged individuals in this study require care because the risks for co-morbidities increase progressively with BMI values, in addition to the association with higher death risks by all causes⁽²⁴⁾.

It should be considered, however, that aging poses transformations that particularize the use of anthropometry in the analysis of obesity among the elderly. These transformations include the progressive loss of lean weight, with an increase in body fat indexes, reduced height, in addition to the relaxation of abdominal muscles and kyphosis⁽²⁴⁾.

The data revealed that the women presented WHR within high risk ranges (33.3%) or very high risk ranges (33.3%). A high WHR relation represents a greater proportion of abdominal fat with a higher risk of developing hyperinsulinemia, insulin resistance, type II diabetes, endometrial cancer, hypercholesterolemia, hypertension and atherosclerosis.

Regarding the glucose levels, 81.8% were within the expected pattern, i.e. below 140 mg/dl, 13.6% presented a dubious result for DM and 4.7% for probable DM. None of the elderly presented results of more than 270

mg/dl, which would characterize very probably DM. In the elderly, however, the clinical expression for DM is frequently insidious and atypical, with, for instance, an increase of the renal threshold for glucose elimination, changes that result, in the elderly population, in about half the DM cases not reaching an established diagnosis⁽²⁴⁾.

Considering the sociodemographic and clinical data described above, it can be inferred that nurses, as health professionals, have an important role in this type of study, since they diagnose the real needs of the aged person they are caring for. In this way, the implementation of nursing care, regarding care, management, or education is planned with greater possibilities for success.

In this sense, Mathias e Jorge⁽²⁵⁾ report that knowing about the characteristics of the local clientele contributes to an effective performance of the whole health team, since it can generate causal hypotheses, in addition to cooperating with the preparation of health programs and policies.

More specifically with the elderly, when making basic diagnostic indicators, such as sociodemographic data and the description of the problems and needs that affect and influence their wellbeing, nurses can manage care to the elderly by planning, coordinating and monitoring the services. In addition, they can prevent or reduce the risks associated to physical, emotional and functional problems that can impede their independent community life, or make it difficult to achieve⁽²⁰⁾.

CONCLUSION

The results from this study partially support studies with the same population, for example, the predominance of women. The data concerning income and occupation, however, revealed even more specific predominance items in terms of the number of aged individuals who live alone and three-generation families.

In terms of their clinical condition, it was observed that the most prevalent pathologies confirmed other studies on the theme. However, BMI data revealed high percentages of obesity, which shows there is a need to evaluate this particular factor more thoroughly in further studies.

This study permitted evidencing the sociodemographic and clinical characterization of the elderly seen at the BFHU, favoring a situational diagnosis and health indicators. Besides, it can be replicated in different settings. Although studies like this cannot be generalized, their relevance is incontestable for health professionals (nurses, physicians, health agents) and local administrators, since they favor the implementation of disease prevention and health promotion founded on the real context.

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