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Research Article

Affective Bond, Loneliness and Socioeconomic Aspects of an Elderly Population in Midwest, Brazil

Abstract

Background: loneliness, a common feature among elderly people, can affect health and quality of life.

Objective: this article examined affective bond and marital status among elders in "Barra do Garças", municipality, Mato Grosso State, Midwest Brazil.

Methodology: from the 3,593 elderly people, 300 engaged in the study which had been approved by the ethical committee on research.

Results: there were more illiterate men than women (37.7% and 21.6%, respectively). In respect of income source there was a relative contingent of women with no income comparing to the men. Considering the socioeconomic class the majority of elderly, 68% belong to the less fortunate socioeconomic classes (D and E).

Conclusion: it has been observed a higher contingent of elderly people with no affective bond or living alone which influence the quality of life of those elderly by increasing the psychosocial as well as the health-related risks, which was widely discussed according to the world's scientific literature.

Introduction

Elderly population in Latin American and Caribe grows 3.8% *per annum*; In 2005, this population group comprised 34,2 million of people which will reach 100 million in 2025 [1]. Actually, the Brazilian Elderly population comprises 8.2%, representing 16,812.608 of people [2]. Rio de Janeiro, Rio Grande do Sul, São Paulo and Paraíba are Brazilian States with highest proportion of elderly, while in Mato Grosso state only 5.9% of people are elderly [2].

Due to the potential increase of the elderly population it is really necessary to know the different social, cultural, economic, and environmental aspects related to aging, since these factors can be determinants of both the health status and the functional capacity of elderly [3].

It is well known that education level of elderly people is inversely associated with risk of chronic non-communicable diseases such as dementia, depression, type 2 diabetes mellitus, obesity, hypertension, cardiovascular diseases, poor mobility, among others [4,5].

Loneliness and lacking of affective bonds, common problems of elderly men and women, are associated with increased risk of chronic diseases such as mental disorders and cardio metabolic diseases [6].

Since loneliness has been associated with risk of depression, fatigue and pain [7], the objective of the current work was evaluate affective bond and marital status among an elderly population of a municipality from Midwest Brazil.

Methodology

The current study was done in Barra do Garças municipality, Mato Grosso State, located at the border of Goias state. The Barra do Garças

city presents 9,141,84 Km² of area and is 510Km far from Cuiaba, the state's capital. The city population is 58,398 inhabitants and 3,593 people have 65 years old or more [2]. The studied population was constituted by people with 65 years old or more which attended at leisure-time activities offered by Social Assistance Secretary (SAS) of Barra do Garças municipality in partnership with the Federal University of Mato Grosso (UFMT).

The convenience sample (n=300) included all subjects with 65 years old and more which engaged in leisure-time activities and agreed to be interviewed. Information regarding marital status, and socioeconomic variables such as gender, age, income and other information was collected.

This transversal study was carried out during May and September 2015.

People with 65 years old, engaged in the social activities, and that agree to engage into the study were included. The exclusion criteria was being less than 65 years old and those who did not agree to participate.

This study did not present any kind of risk for the participants and the interview ensured the privacy of each subject. All participants signed the informed consent and the study was approved by the Ethics Committee on Research of the Julio Müller University Hospital (UFMT) (665/CEP-HUJM/09).

Data was statistically analyzed by the EPI-INFO® software (6.04d). The hypotheses of association between variables was accepted when the found *p* value was lower than 0.05.

Results

As observed in Table 1, there is a trend of femininity among the elderly population, since almost 65% of then was women.

Considering the education level, the frequency of illiterate men was higher than that found for women.

On contrary, regarding income source there was a relative number of women who did not have income compared to the men. Regarding to the socioeconomic classification there was estatistically significant differences regarding gender considering belong to the B1 and B2 socioeconomic classes. It is important to note that the majority of elderly was poor and belong to the D social class (60.7%), the second lowest.

Moreover, about 30% of the elderly, regardless of gender, declared live alone (Table 1).

Regarding marital status, the frequency of untethered elderly was 50% lower than the frequencies of the elderly with bond or widowed (Table 2). The frequency of elderly without affective bond or widowed was 20.3% and 40.3%, respectively (Table 2).

Table 1: Socioeconomic profile of elderly from Barra do Garças, MT, Brazil.

Variables	Female (n=194)	Male (n= 106)	Total (n=300)	p*
Age (years):				
65 a 69	111 (57.2%)	43(40.5%)+	154 (51.3%)	p<0,05+
70 a 79	71 (36.6%)	49(46.2%)+	120 (40.0%)	
80 e +	12 (6.2%)	14 (13.2%)	26 (8.7%)	
Education level (years)				
Never	42 (21.6%)	40 (37.7%)+	82 (27.3%)	p<0,05+
1 a 4	93 (47.9%)	50 (47.2%)	143 (47.7%)	
5 a 8	40 (20.6%)	11 (10.4%)	51 (17.0%)	
8 e +	19 (9.8%)	5 (4.7%)	24(8.0%)	
Incomed source				
Without	26 (13.4%)	1 (1.0%)+	27 (9.0%)	p<0,05+
Working	16 (8.2%)	23 (21.6%)	39 (13.0%)	
Retired	146 (75.3%)	81 (76.4%)	227 (75.7%)	
Others	6 (3.1%)	1 (1.0%)	7 (2.3%)	
Socioeconomic classes				
B1 and B2	13 (6.7%)	3 (2.8%)+	16 (5.3%)	p<0,05+
C	53 (27.3%)	27 (25.5%)	80 (26.7%)	
D	120 (61.9%)	62 (58.5%)	182 (60.7%)	
E	8 (4.1%)	14 (13.2%)	22 (7.3%)	
Live alone?				
Yes	54 (27.8%)	34 (32.1%)	88 (29.3%)	p>0,05
No	86 (72.2%)	54 (27.8%)	212 (70.7%)*	p<0,05

*p = chi-square test
+ p<0.05 estatistically significant differences between women and men

Table 2: Marital status and gender in elderly from Barra do Garças, MT, Brazil.

Gender	Marital status						Total	
	without bond*		with bond		widower			
	n	%	N	%	n	%	n	%
Female	27	13.9	59	30.4	108	55.7	194	64.7
Male	34	32.1	59	55.7	13	12.3	106	35.3
Total	61	20.3	118	39.3	121	40.3	300	100.0

*p < 0,05, compared with the other two categories.

Discussion

Data from the current study revealed a predominance of a less older population, since the age group of 65-69 years were prevalent (57.2%). These data supports the notion that demographic transition is more recent in Barra do Garças, Mato Grosso State, compared to the cities from the Southeast and Southern Brazil.

In the current work, women (65%) were most prevalent compared to the men. A study in a Public Health Unit from Fortaleza, Ceará (Northeast Brazil), 77.1% of the sample were women [8].

A significant proportion of women without income is very worrying, once this variable (income) is associated with increased health risks.

A work in Khorasan, Iran, clearly demonstrated that illiterate subjects presented higher prevalence of diabetes mellitus, whereas the marital status had not been associated with frequency of that disease [4]. In Stockholm, women with lower education presented 150% increased risk of developing diabetes mellitus [9].

In the current work, the frequency of illiterate men (37.7%) was higher than women (21.6%), which is different from a Brazilian study in Maringá, South Brazil. In that study, 29,2% of men and 24.2% of women were illiterate [10]. Notwithstanding, in the current work the illiteracy (21.4%) was lower compared to a previous study covering one municipality from the North and other from the Northeast Brazil, were illiteracy was 69.3% [11].

A greater frequency of illiterate men was related to increased risk of both type 2 diabetes and cardiovascular diseses, among other chronic non-transmissible diseases [12]. There was an inverse correlation between education level and risk of hypertension, and the population belonging to the highest education levels had 13% to 26% decreased risk of that disease [13]. An Indian study, with 19,969 subjects demonstrated that prevalence of hypertension (33.8%) and smoking (56.6%) were higher among those who had lowest education levels compared to the population of the highest education levels (22.7% and 12.5%, respectively) [14].

A study in Bom Jardim de Goias which is nearby from Barra do Garças revealed that women had better knowledge on diabetes mellitus than men [15].

Another important variable is the socioeconomic level of the elderly population. In this study, 68% of the elderly belonged to the less fortune socioeconomic classes (D and E). It well known that education level influences the socioeconomic status. Belonging to a low

socioeconomic class increased in 170% and 190% the risk of diabetes mellitus among middle-age women and men, respectively [9].

Regarding marital status, 55.7% of women and 12.3% of men were widower. This result did not substantially differ from observed in a study in the municipality of Encruzilhada, inner Rio Grande do Sul state, South Brazil. In that study, 62% of the elderly were widower, comprising 80% of women, and 20% of men [5].

However, our results are different of data found by Pandey [16], in India. That author found a high proportion of married elderly (75.4%); and the divorced/separated elderly presented worst health status compared to current married or never married. By the other side, the present study was more close to the reality reported by Victor et al. [8], which found 50.5% of elderly with no declared affective bond. In the current study, the majority of elderly lived in loneliness.

In elderly people, loneliness is a risk factor for lesser motivation of feeding. Data of the SOLINUT study in Bordeaux, France, showed 42.6% of elderly with an insufficient caloric intake and 21.3% with protein caloric malnutrition [17].

In this manner, when elderly are exposed to lack of opportunities and social contacts they are more prone to present reduced physical capacity [18], as well as cognitive decay, and increased risk of depressive episodes [19]. Men who die early in general are smokers and living alone [20].

Elderly men not married or living alone had a double risk of cognitive decay acordding to a Dutch study [21].

It was observed 30.4% of women and 55.7% of men presented affective bonds with partners. The frequency of older people with affective bond was minor than that observed by Feliciano et al. [22], which reported 75.4% and 49.8% of men and women, respectively, had affective bond.

In the current study, 27.8% and 32.1% of elderly women and men, respectively, lived alone. These frequencies were higher compared to the reference values for Brazilian population (men = 5.2%; women = 9,66%) [2], in the same manner, the frequency of loneliness in elderly reported here was higher compared to the 11.7% observed by Victor et al. [8] in Fortaleza, Brazil, and the 9.8% found in two municipalities of the North and Northeast Brazil [11]. The data of the further study corroborate the study of Feliciano et al. [22].

It should be noted that loneliness and absence of affective bonds in older age affects both physical and mental health outcomes [6,23]. In the same manner, being widowed was found to be a risk factor for depression according to a recent study [24].

According to the SABE Project in São Paulo, income, education, and female gender were the factors associated with increased risk of difficulties in performing instrumental activities of daily life [25].

Since elderly with preserved physical and cognitive capacities are considered those with a successful aging, social and public health strategies are important to improve social contacts and affective bonds, and avoid social isolation of the elderly.

Conclusion

In the present study elderly people belonged to the lower socioeconomic classes. Although illiteracy of women was lower than the Brazilian reference value, the frequency of male illiteracy reached 38%. A great proportion of those elderly lived alone which provides an increased risk of psychosocial and health problems.

Acknowledgement

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