

Inequality in the characteristics of the institutionalized elderly in the city of Natal, Brazil

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Abstract *The aim of this study was to describe the differences in the profile of elderly residents in non-profit and for-profit Long-Term Residential Institutions for the Elderly (ILPI). We visited 12 ILPIs in the city of Natal, Rio Grande do Norte. Six of them were non-profits housing 260 elderly, and six were for-profit institutions, housing 127 elderly. The unequal characteristics of the elderly in these facilities are based on socioeconomic data and the reason for institutionalization. The data was submitted to Chi-squared or Student's t, with a significance level of 5%. Illiterate, single, black or brown, individuals with no retirement/pension or healthcare plan, no children and no visitors who purchase something outside the institution with their own money are associated with non-profit ILPIs. When analyzing the reasons for institutionalization, family conflict, abandonment and being homeless were associated with the elderly institutionalized in non-profit ILPIs. The main reason for the elderly institutionalized in for-profit ILPIs was "being ill". The conditions of the elderly in non-profit ILPIs were poorer, reflecting the social inequality these subjects experienced throughout their lifetime.*

Key words *Elderly, Long-Term care facilities for the elderly, Socioeconomic factors*

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Introduction

Population aging is one of the largest challenges facing contemporary Public Health. Developing nations are experiencing inverted age pyramids, corroborating the existence of a significant proportion of elderly people in their populations¹. The increase in number of elderly people and longer life-expectancy have led to a proportionately larger number of homeless elderly and increased demand for care facilities for those over 60².

As a result, more Long-Term Residential Institutions for the Elderly (ILPI) are being created. This is a special type of socio-health institution that may be non-profit or for-profit. Committing the elderly to this type of facility is associated with the services they offer, in addition to the economic and psychosocial problems that families face in caring for their elderly, especially in view of their vulnerability and reduced functional capability at this stage in life³.

Professionals working at the ILPIs must therefore know how to directly handle the elderly with reduced functional skills, attempting to preserve their quality of life. This requires identifying the differences in the characteristics of the elderly populating residing in non-profit and for-profit ILPIs to help implement care programs for this population, which increasingly needs care due to longer life-spans, loss of independence and autonomy and increase in chronic diseases⁴.

Thus it is fair to state that institutions for the elderly are hybrid in nature: social and health-care, and therefore demand policies that address both these spheres. This requires developing specific policies to regulate their operation⁵.

On October 2008 ILPI regulation was signed, defining the legal, infrastructure, operational, hygiene-sanitary and occupational health requirements for the proper operation of long-term residential care facilities for the elderly in Natal. According to this legislation, the quality of life of the elderly must be safeguarded when they live in this type of shelter⁶.

It is understood that institutions should offer favorable living conditions to the elderly in all aspects, however due to economic problems this doesn't always happen. In general, these elderly individuals suffer from a situation of inequality lasting their entire lives. Because of this, the goal of this study was to check the differences in the characteristics of the elderly population living in ILPIs in the city of Natal, RN - both non-profit and for-profit.

Methods

This is a cross-sectional study of elderly subjects living and non-profit and for-profit ILPIs as the unit of observation and analysis. This study was submitted to the Federal University of Rio Grande do Norte Research Ethics Committee (REC), and approved.

The sample was made up of elderly men and women aged 60 or over residing in ILPIs in the city of Natal, RN, registered as such with the city health surveillance agency (VISA). We visited twelve long-term care facilities, six of them non-profits housing 260 elderly, and the other six for-profit, housing 127 elderly. This study was performed between June 2012 and November 2013.

Data was collected using a questionnaire based on SABE, the Health, Well-Being and Aging project⁷ and on the Héredia et al.⁸ study conducted in Caxias do Sul in 2004. The questionnaire was answered by the elderly themselves, so long as they had sufficient cognitive function to do so. Otherwise, the questions were answered by the care-giver or supplemented with data provided by the institution. Interviews to gather data were conducted by interviewers trained and calibrated for this purpose.

To identify inequalities, elderly residents were characterized by age, gender, color/race, marital status, children (yes or no), origin, religion, reason for institutionalization, years of schooling, if they purchased anything outside the institution with their own money, if they have retirement/pension benefits or health insurance or the like, and if they receive visitors.

The questionnaire answers were analyzed using the Statistical Package for the Social Sciences (SPSS) 20.0 program. Furthermore, we used Chi-squared/Fisher's Exact tests or Student's t for independent samples to check for any association between the variables used to characterize the elderly and the type of residential facility, with a 95% confidence level.

Results

387 individuals were assessed, with an average age of 81.81 (\pm 9.04). Most of them - 260 or 67.2% - resided at one of the 6 non-profit facilities, and the remainder - 127 or 32.8% at the 6 for-profit facilities. The majority of the sample was made up of women. Most of the institutionalized subjects in this study were white, single, illiterate,

have no health insurance of the equivalent, are retired/have a pension and do not manage their own money.

Table 1 shows the breakdown of the elderly in this study by type of residential facility, and

clearly shows significant differences. Data analysis shows that, as a rule, the elderly in non-profit organizations are in the lower end of socioeconomic strata. This was determined based on the fact that the illiterate, single, non-retired/pen-

Table 1. Absolute and percentage distribution of the independent variables related to living in non-profit and for-profit ILPIs. Natal-RN, Brazil, 2013.

Variable	Non-profit n(%)	For-profit n(%)	PR	CI 95%	p
Gender					
Male	74 (70.5)	31 (29.5)	1.16	0.81-1.67	0.471
Female	186 (66.0)	96 (34.0)			
Color/race					
White	131 (59.3)	90 (40.7)	1.00		< 0.001
Black	49 (94.2)	3 (5.8)	0.75	0.68-0.83	
Brown	68 (73.1)	25 (26.9)	0.84	0.79-0.97	
Other	11 (73.3)	04 (26.7)	0.96	0.90-1.03	
Marital Status					
Single	144 (82.3)	31 (17.7)	1		< 0.001
Window	65 (52.4)	59 (47.6)	2.0	1.48-2.70	
Married	22 (50.0)	22 (50.0)	1.48	1.17-1.87	
Separated/Divorced	24 (66.7)	12 (33.3)	1.18	0.98-1.45	
Children					
Yes	127 (61.1)	81 (38.9)	0.73	0.61-0.87	0.001
No	130 (76.9)	39 (23.1)			
Origin					
Urban area	230 (66.7)	115 (33.3)	0.95	0.90-0.99	0.092
Rural area	19 (86.4)	3 (13.6)			
Religion					
Roman Catholic	184 (63.9)	104 (36.1)	1		0.091
Evangelical	33 (76.7)	10 (23.3)	0.93	0.86-1.01	
Other	11 (84.6)	2 (15.4)	0.96	0.92-1.00	
Years of Schooling					
Illiterate	115 (97.5)	3 (2.5)	1		< 0.001
Alphabetized	67 (65.0)	36 (35.0)	8.21	2.75-24.50	
Primary School	53 (71.6)	21 (28.4)	5.47	1.89-15.86	
Secondary School	14 (26.4)	39 (73.6)	12.48	4.18-37.20	
University Graduate	06 (25.0)	18 (75.0)	6.65	2.33-18.98	
Retirement/Pension					
Yes	214 (66.5)	108 (33.5)	0.91	0.84-0.98	0.042
No	41 (82.0)	09 (18.0)			
Manages own money					
Yes	10 (58.8)	7 (41.2)	0.71	0.28-1.84	0.667
No	231 (67.0)	114 (33.0)			
Purchase goods outside the facility with their own money					
Yes	152 (81.3)	35 (18.7)	2.20	1.64-2.97	< 0.001
No	86 (50.0)	86 (50.0)			
Healthcare Plan or equivalent					
Yes	16 (13.2)	105 (86.8)	0.07	0.04-0.11	< 0.001
No	242 (94.5)	14 (5.5)			
Receives visitors					
Yes	221 (64.6)	121 (35.4)	0.85	0.81-0.90	< 0.001
No	38 (100.0)	0 (0.0)			

sioned elderly with no children, no health insurance, and receiving no visitors were associated with non-profit ILPIs.

For black and brown subjects, there was a positive association between the variable color/race and the type of facility they are living in. There are 25% fewer whites than blacks at non-profit ILPIs, and 16% fewer white than brown elderly. 27% more of the elderly in non-profit ILPIs reported no children.

Regarding the variable “purchases something outside the institution with his/her own money”, although the socioeconomic situation of the elderly living in non-profit ILPIs tends to be poorer, they have more independence to buy what they want outside the institution.

When analyzing why these individuals were sent to care facilities, the lack of a caregiver was the main reason in both non-profit and for-profit institutions. When analyzing the reasons for

institutionalization, family conflict, abandonment and being homeless were associated with the elderly institutionalized in non-profit ILPIs. Among those the elderly institutionalized in for-profit ILPIs was “being ill” was the main reason given and had a positive association (Table 2).

Discussion

The aim of this study was to describe the differences in the profile of elderly residents in non-profit and for-profit Long-Term Residential Institutions for the Elderly (ILPI). In both types of facilities women outnumber men, corroborating the findings in most of the literature reviewed⁹⁻¹². This reflects the fact that all over the world and in Brazil women outnumber men due to increased cardiovascular protection from hormones, less use of alcohol and tobacco, and more

Table 2. Breakdown of the elderly by reason for institutionalization and whether they are in a non-profit or for-profit ILPI. Natal-RN, Brazil, 2013.

Reason	Non-profit n(%)	For-profit n(%)	PR	CI 95%	p
No care-giver					
Yes	68 (64.2)	38 (35.8)	0.98	0.82-1.17	0.884
No	119 (65.7)	62 (34.3)			
Ill					
Yes	14 (20.3)	55 (79.7)	0.26	0.16-0.41	< 0.001
No	173 (79.4)	45 (20.6)			
Lived alone					
Yes	35 (71.4)	14 (28.6)	1.10	0.92-1.37	0.397
No	152 (63.9)	86 (36.1)			
No place to live					
Yes	22 (100.0)	0 (0.0)	1.60	1.46-1.76	0.001
No	165 (62.3)	100 (37.7)			
Own choice					
Yes	16 (76.2)	5 (23.8)	1.19	0.92-1.53	0.387
No	171 (64.3)	95 (35.7)			
Abandoned					
Yes	14 (100.0)	0 (0.0)	1.61	1.47-1.77	0.009
No	175 (62.1)	107 (37.9)			
Family conflicts					
Yes	11 (100.0)	0 (0.0)	1.60	1.46-1.75	0.026
No	178 (62.5)	107 (37.5)			
Negligence and ill treatment					
Yes	9 (90.0)	1 (10.0)	1.43	1.14-1.79	0.157
No	180 (62.9)	106 (37.1)			
Referred by another institution					
Yes	6 (85.7)	1 (14.3)	1.35	0.99-1.86	0.412
No	183 (63.3)	106 (36.7)			

frequent visits to the doctor¹³. In addition, women are more likely to be widowed and experience economic difficulties, making it more likely that they will be placed in a care facility^{12,14}.

Being elderly, with few friends, and little or no schooling are often described as risk factors for institutionalization⁴. When it comes to children however, our results disagree with previous studies as some of the single elderly subjects had children⁴. This reflects family vulnerability in terms of caring for their elderly, as even with children who potentially could have cared for their relatives, these subjects were institutionalized.

Abandonment was not among the main causes for the elderly living in care facilities. However, vulnerabilities are found in family awareness of how to care for the elderly. Given the diminished functional capabilities and independence of this segment, the family transfers responsibility to caregivers, which possibly explains the predominance of “no caregiver” as the main reason for institutionalization.

Regarding color/race and religion, the results reflect the overall characteristics of the Brazilian population, where most people declare themselves to be white and Roman catholic¹. The fact that most of the elderly living in care come from urban areas suggests that those in rural areas have more trouble getting into an ILPI in the state capital, suggesting the need to discuss the supply of this type of service in the interior of the state.

Single elderly and those who have lost their spouse and have no children or close family member socially obligated to provide care are often sent by their more distant relatives to non-profit long-term care facilities for the elderly. In addition, the fact that most of the black or brown elderly live in non-profit ILPIs shows that those who report themselves as such are more likely to have fewer years of schooling and lower socioeconomic status¹⁵.

We found that almost all of the illiterate elderly in the sample live in non-profit facilities, whereas the majority of those with a university degree live in for-profit ILPIs. This reflects a strong association in this country between socioeconomic conditions and completing secondary school, which in turn enables access to higher education. Most individuals completing secondary

school belong to the middle or upper classes¹⁶. This being the case, the elderly able to cover the costs of a for-profit ILPI had more opportunity to access higher education at the appropriate time in their lives.

Given the poorer socioeconomic conditions of the elderly residing in non-profit ILPIs, it is clear that those residing in this type of facility are more susceptible to the chronic stresses of greater socioeconomic privation, with a direct or indirect impact on their health¹⁷. However, the elderly in these facilities have more freedom to go out and purchase something, which may improve their self-esteem and diminish the symptoms of depression^{18,19}.

In this study all of the elderly receiving no visitors resided in non-profit ILPIs, confirming their unfavorable situation as the absence of visitors is related to abandonment, and may imply in a decline in the individual's physical or mental health, and is also associated with symptoms of depression²⁰.

Finally, the more unfavorable conditions were found among the elderly living in non-profit ILPIs. When we look at the reason for institutionalization, the only variable not consistent with this scenario was “being ill”, which was found more often among the elderly in for-profit ILPIs. This leads us to believe that although these families are in a better socioeconomic situation, they would rather institutionalize their elderly because of the services these facilities provide. Looking at the reasons for institutionalizing the elderly in non-profit ILPIs, we found that family members feel no responsibility for caring for the elderly in worse social conditions, as “abandoned by the family”, “no place to live” and “family conflicts” are associated with this type of facility.

Conclusion

In general, the more unfavorable conditions were found among the elderly living in non-profit ILPIs. We found the population of these facilities to be primarily black or brown, single, childless, with few years of schooling, no retirement or health-care plan and receiving no visitors, reflecting the social inequality these elderly have experienced their entire lives, extending to their later years.

Collaborations

NCG Pinheiro gathered and interpreted the data and helped with study design and the final draft of the manuscript. VCD Holanda worked on data

interpretation and helped draft the manuscript. LA Melo and AKB Medeiros worked on study methodology and helped draft the manuscript. KC Lima helped guide the study, data analysis, critical analysis and helped draft the manuscript.

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