What the Hell Am I Doing Here? A Look at a Series of Geriatric Centers, Profile of the Institutionalized Persons and Reasons for Admission

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Abstract: The main objective of this study was always to know the profile of the institutionalized people in our environment, to know their reality: age, age of admission, level of dependency and evolution during their stay, years of stay, number of children, reason for admission. We use data from more than 600 patients from different residences of different backgrounds: public and private, lay and religious, rural and urban. We performed a descriptive study expressing the results in percentages with standard deviation and later evaluated the statistical significance of the differences using the student's t-test for the quantitative and Chi-square variables to compare qualitative variables. The results of the study are numerous and of diverse nature, because of their extension, from the general profile of the resident, to the important gender differences, attributed in principle to the different roles of each gender in the studied generations. There are also differences depending on the funding, the reason for admission or the environment. This is at the end only the beginning of a large comparative study with non-institutionalized population, in order to compare this population.

Key words: Geriatric assessment, aged, housing of the elderly, patient admission, healthcare financing, environment, sex.

1. Introduction

The aging process generates important changes in the lifestyle of the population with significant repercussions on the volume and distribution of the social burden of disease. The UN (United Nations) states that it is a sequential, cumulative and irreversible phenomenon, which deteriorates the organism progressively until it is unable to cope with circumstances and conditions in the environment [1].

This descriptive study shows data referring to the profile of the institutionalized patient in geriatric residences to elucidate conclusions about their status in the same and their evolution according to the

previous environment (urban or rural), sex and age [2].

This study shows that the rural area implies a greater dependence of the resident for psychiatric problems, especially in women [3]. On the other hand, in the urban area, urologic pathology and psychosocial problems are more frequent.

Ultimately, we could advance by studying the causative factors of pathology according to the environment where each resident has developed [4].

2. Material and Methods

Scope: five geriatric residences located in our medium of different profile (urban/rural, public/private). We studied all residents by collecting data on gender, AA (age of admission), CA (current age), AS (average length of stay), marital status, children, RA (reason for admission), funding, DE

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(degree of dependency at entry) and DC (current degree of dependency), associated limiting pathologies: dementia, Alzheimer's disease, psychiatric disorders, cerebrovascular disease (CVA), diaper use and psychoactive drugs. We used the statistical program G-Stat with Excel as database. We evaluated the statistical significance of the differences using Student's t-test for quantitative and Chi-square variables to compare qualitative variables.

3. Results

Gender: women 63%, men 37%. Age on Admission: $78.1\% \pm 0.45$ years. Current Age: 82.07 ± 0.4 years. Average stay: 4 ± 0.18 years. Civil status: married 14.64%, single 25.82%, divorced 8.29%, widowed 51.25%, 54% of residents have 1 or no children. Reason for admission: 24.66% entered by physical dependence; 26.59%, for neuropsychiatric reasons; 48.75%, due to social problems (Fig. 1). Financing AA: Public regime (R_{Pub}) 77 ± 0.67 , private regime (R_{Priv}) 79.15 ± 0.6 ($p = 0.018$). CA: There are no significant differences. AS: R_{Pub} 4.57 ± 0.31 , R_{Priv} 3.56 ± 0.21 ($p = 0.007$) DE: (R_{Pub}) 48.52 ± 2.07 , (R_{Priv}) 62.99 ± 2.05 ($p = 0.001$). DC: (R_{Pub}) 39.34 ± 2.08 , (R_{Priv}) 54.14 ± 2.22 ($p = 0.002$). Dementia: (R_{Pub}) 30.25%, (R_{Priv}) 25.63% ($p = 0.0022$). Alzheimer's disease: (R_{Pub}) 15.61%, (R_{Priv}) 7.32% ($p < 0.0001$). CVA: (R_{Pub}) 9.06%, (R_{Priv}) 3.66% ($p < 0.0001$). Psychiatric disorder: there are no significant differences. Associated Neuropsychiatric Pathology AA: D (Dementia) 78.98 ± 0.55 , ND (non-dementia) 77.02 ± 0.75 ($p = 0.03$). P (Psychiatric disorder) 75.66 ± 0.85 , NP (no psychiatric disorder) 79.39 ± 0.52 ($p = 0.0008$). CA: (D) 83.09 ± 0.47 , (ND) 80.76 ± 0.69 ($p = 0.004$). (P) 79.27 ± 0.73 , (NP) 83.51 ± 0.47 ($p = 0.0005$). There are no significant differences regarding the age of admission, current age or AS in

Alzheimer's and Stroke. DE: (D) 47.64 ± 1.86 , (ND) 66.64 ± 2.23 ($p < 0.0001$). Alzheimer (A) 41.97 ± 2.72 , no Alzheimer (NA) 60.21 ± 1.7 ($p = 0.0002$). CVA 42.87 ± 4.02 , in no CVA 48.83 ± 1.69 ($p = 0.0022$). DC (D) 36.57 ± 1.89 , (ND) 60.25 ± 2.32 ($p = 0.0009$). (A) 27.09 ± 2.49 , (NA) 52.95 ± 1.78 ($p = 0.0009$). CVA 34.58 ± 3.46 , no CVA 48.83 ± 1.69 ($p = 0.0022$). There are no significant differences in DE or DC in psychiatric disorder (Fig. 2). Neuropsychiatric diseases: 55.88% presented some type of pathological cognitive deterioration, of which 42% corresponded to Alzheimer's disease (22.93% of residents). The 12.72% have suffered a stroke; 34.1% some type of psychiatric disorder. Level of dependency (DE/DC): independent 13.49/10.2%, mild dependence 10/9.6%, moderate 27.75/20.23%, severe 24.08/25.43%, total 24.6/34.49%. The average Barthel income is 56,027 ± 1.49 ; the current, 47.02 ± 1.55 . The 72.64% use diapers and 76.49% use psychotropic drugs (Fig. 3). Areas: Age of admission: Rural (R) 76.15 ± 0.81 Urban (U) 79.18 ± 0.53 $p = 0.0013$. Current age: (R) 80.62 ± 0.81 (U) 82.85 ± 0.43 $P = 0.008$. Average length of stay: (R) 4.48 ± 0.29 (U) 3.81 ± 0.24 $p = 0.089$. Children: (R) 1.18 ± 0.09 (U) 1.62 ± 0.084 $p = 0.0009$. Reason for admission: Social (R) 38.2% (U) 54.5% Neuropsychiatry (R) 46.6% (U) 15% Physicaldependence (R) 15% (U) 30% $p < 0.0001$. Dependence: Barthel income (R) 51.75 ± 2.48 (U) 58.35 ± 1.85 $p = 0.034$. Severe-total dependence on income (R) 54.64% (U) 43.75% $p = 0.0176$. Barthel current: (R) 40.56 ± 2.55 (U) 50.53 ± 1.93 $p =$ (R) 44.8% (U) 61.9% $p = 0.0002$ Psychiatric Disorders: (R) 69.4% (U) 53.27% $p =$ (R) 19.67 (U) 41.96 $p < 0.0001$ Urinary incontinence (R) 86.34% (U) 65.18 $p < 0.0001$ Alzheimer's, stroke and psychoactive drugs use: There are no significant differences.

Fig. 1 Reason for admission.

Fig. 2 Diseases and finance.

Fig. 3 Dependence and reason for admission over time.

4. Discussion

The goal of this study is to know the profile of institutionalized patients in geriatric residencies in our environment.

The percentage of women surpasses men, being the profile of the resident usually studied an elderly woman (63%), which corroborates the findings in the previously reviewed literature [5-7]. Incidentally, the main marital status is widowhood (51.21% against a 14.6% married, 25.8% single and 8.3% divorced), especially among women (Table 1).

The existence of the social problematic which conditions the person to live in their residence is the fundamental motif of their ingress in geriatric residencies (48.75% against 26.5% of neuropsychiatry condition and 24.6% of physical dependency). Often, elderly people who have lost their partners and have no descendants or people to look after them are sent by distant relatives to geriatric centers (public, for the most part). This widow, lacking children condition is present in greater numbers as well in our studied population, although it is true that other studies would

be needed to determine if those are “risk factors” for their checking into nursing homes.

Males check into retirement homes beforehand, considering them more independent than females before admission. The fact that women join later could be attributed to the cultural existence of different roles for both, what give females a greater degree of autonomy. On the other hand, women longevity and the later admission have a greater morbidity rate in relation to males [8] being, therefore, the average Barthel index higher in males (Table 2).

In the year 2012, out of every nursing home in Spain, more than a quarter had private financings [9]. This bring light to the fact that even though the entrance of the private initiative and the creation of a business area dedicated to the elderly, it comes with almost a two-decade difference between Spain (90’s) and European countries which assign more resources to this activity (France and Germany, in the 70’s), this area has developed in the latest years with an increasing growth in our country [10]. In our case, more than 50% of the residents studied have a

complete or partial way

Table 1 Resident profile.

Resident profile	Woman
	82 years old
	4 years institutionalized
	Widowed
	Admission due to social problems

Table 2 Men and women differences.

	Men	Women
Admission age (years)	75.3	79.8
Current age (years)	79.4	83.6
Severe total dependence on income (%)	33.6	55.7
Current severe total dependence (%)	42.2	68.8
Civil status	Widowed	Widowed
Alzheimer (%)	15.6	27.2
Incontinence (%)	57.3	81.7

of private financing, being age and independence level greater in these patients.

In the same way, more than 50% of patients present some kind of cognitive deterioration as could be expected from the revised literature [11], being this percentage greater if only the female group is taken into account (more than 60%) [12]. Out of which, a 42% corresponds to Alzheimer's disease (22.93% of the patients).

Finally, taking into consideration the difference on institutionalized patients' profiles according to rural or urban environments on which the nursing home is placed, patients in a rural environment are admitted beforehand and their average age is also significantly lower 76.15 ± 0.81 against 79.18 ± 0 . Separating the reason of admission, the more frequent in rural environments is the neuropsychiatric pathology and in an urban environment the social problematic. Lastly,

the level of dependency is greater in a rural environment, as well as the prevalence of dementia.

5. Conclusions

Comparing our area with previous literature, we notice the admission age in nursing homes is increasing over time. This could be related to the increase of the quality of life and the life expectancy.

There are circumstances that occur in greater numbers in the population studied (widow, female, children equal or less than 1, etc.), but they need other studies to determine if they constitute a risk factor or not to enter in a nursing home. That would allow us to identify this population and perhaps intensify attention to them. This could be the next step to this research group.

The problematic social existence that conditions people to live in their home is the main reason for

admission to a nursing home, highly above neuropsychiatric pathology and a situation of physical dependence.

Gender differences are not only due to those properly attributable differences in health but to the cultural existence of different roles, which provide a greater or lesser degree of autonomy.

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