

## Assessment of Family Functionality Among the Elderly With Chronic Illness

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### Abstract

The family APGAR scale was developed by Smilkstein, Ashworth, and Montano (1982). The satisfaction assessment of the elderly with chronic illness regarding family is essential. This study aims to describe the socio-demographic and clinical profile of elderly people with chronic illness and correlate with perceived family support. This is a cross-sectional, analytical study of 294 elderly people (51.4% female), patients at the Health Centre in the district of Viseu - Portugal, diagnosed with chronic illness (77.9% cardiovascular); Mean age was  $72.22 \pm 6.13$ , 70.7% were married and 52% had 4 years of schooling; Data was gathered using a questionnaire and the Family APGAR (Adaptation, Partnership, Growth, Affection and Resolve). In relation to family functionality, 18.7% perceive families as highly functional, 26.9% mildly dysfunctional and 54.4% severely dysfunction. There is a statistically significant relationship between the family APGAR and the presence of chronic illness ( $p < 0.001$ ). We found no statistical significance between the family APGAR and gender ( $p = 0.26$ ), age ( $p = 0.26$ ), marital status ( $p = 0.32$ ) and educational level ( $p = 0.28$ ). Economic, political and social changes in our society has an impact on the family and the support they provide which is manifested among vulnerable groups, as is the case of an elderly person with chronic illness. Thus, we propose specialised psychological support for this age group which is more vulnerable and without the needed support from within the family.

**Keywords:** family functionality, elderly, chronic illness

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## Introduction

Presently, Portugal faces a wide range of demographic change due to the progressive increase of its elderly population having health, social, cultural and economic repercussions. As a result of this, the community in general and families in particular find themselves confronted with the responsibility of caring for a population with a higher incidence of chronic disease.

Situations of chronic health problems can compromise the functional capacity and independence of the elderly thus making them dependent on a caregiver (Santos & Pavarini, 2012). In Portugal, the care for the elderly is traditionally provided within the family context. However, the social changes subject families to mostly nuclear social typologies, implying that their functionality should be assessed in order to better align their structure. This will require a more tailored response to their task as informal caregivers of elderly with chronic illness. Health professionals can plan family functionality, implement policies and programmes to support family caregivers that correspond to their reality (Santos & Pavarini, 2012). The social support inherent in a set family functionality allows for the reduction of vulnerability to stressful events, such as the chronic disease, in this population (Wang & Zhao, 2012). The study of the physical and psychological health of the elderly is considered an area of primary care.

It is also important to know how each family member perceives family functionality as some studies have pointed to a discrepancy in the way it is perceived by the patients and by their families, a discrepancy associated with the diagnosis in question (Koyama, Akiyama, Miyake, & Kurita, 2004).

## Material and Methods

A cross-sectional, non-experimental, descriptive – correlational study was conducted, with a non-probability sample of convenience consisting of a total of 294 elderly men and women living in the district of Viseu - Portugal, patients of the primary health care unit in their area of residence. Criteria for inclusion were age, 65 years old or more and their presence in the health care unit, and the criteria for exclusion were not being within the age group above or in cases of disabling psychiatric disease or dementia. The patient's medical history was used to confirm the latter and whenever in doubt the clock test was conducted.

Data was gathered with a 15 minute questionnaire administered to the elderly by the members of the research group.

The questionnaire used consisted of three groups of questions. The first group allows for the socio-demographic characterisation of the sample (gender, age, marital status and level of education), the second group is to determine the presence and type of chronic disease and the third group relates to the family APGAR scale of Smilkstein (1978). Smilkstein's family APGAR scale was developed in 1978 (Smilkstein, Ashworth, & Montano, 1982), consisted of questions that allowed for the quantifying of the perception that the individual has of their family functionality (Andrade & Martins, 2011). These questions allow for the assessment of the individual's satisfaction with their family functioning, based on elements considered essential in the family unit, according to the acronym APGAR:

A - Adaptability intra-family – refers to the sharing of resources, as well as the degree of satisfaction with the attention received;

P - Participation – includes joint decision making and family communication when problem solving;

G - Growth – essentially refers to the realisation of emotional growth due to the freedom within the family to change roles;

A - Affection – includes the individual's satisfaction regarding intimacy between family members and the family interactions;

R - Resolution – refers to the sharing of time and satisfaction with the commitments that family members establish”.

The APGAR questionnaire consists of five questions regarding the components of family function, with three possible answers (“almost always”, “sometimes”, “almost never”) the score varies between zero and two points. The sum can be zero to ten points and families can be characterised as: a functional family (7-10) or dysfunctional family (< 6). A dysfunctional family can still be classified as mild (> 2 and < 7) and severely dysfunctional ( $\leq$  2) (Sousa, Figueiredo, & Erdmann, 2010).

Santos and Pavarini (2011), in a study on family functionality with elderly members with cognitive alterations in different contexts of social vulnerability, confirm that the Family APGAR score proved to be an efficient tool to assess the family functionality among the elderly. The instrument for data collection, the questionnaire, was applied

freely and knowingly, without physical, mental, moral or misleading practices of duress that would impede the free expression of the will of the elderly people who agreed to participate in the study.

To achieve this, accessible language was used. Before the application of assessment tools, the objectives, procedures and instruments used were defined, as were the potential benefits, risks and discomforts. The guarantee of clarification was ensured through our presence as participants were elucidated to the fact that the participation in the study was voluntary.

The participants were also informed that the questionnaires were anonymous, “a requirement for the authenticity of the answers”.

## Results

The sample was composed of 294 elderly people, 151 (51.4%) females. The characteristics of the study sample are shown in Table 1.

Table 1

*Characterization of the Sample*

	Female (n = 151, 51.4%)		Male (n = 143, 48.6%)		Total (n = 294, 100.0%)	
	n	%	n	%	n	%
<b>Age (years)</b>						
65-74	102	67.5	91	63.6	193	65.6
75-84	44	29.1	45	31.5	89	30.3
≥85	5	3.3	7	4.9	12	4.1
<b>Marital status</b>						
Single	5	3.3	5	3.5	10	3.4
Married/unmarried partner	91	60.3	117	81.8	208	70.7
Separated/divorced	4	2.6	7	4.9	11	3.7
Widowed	51	33.8	14	9.8	65	22.1
<b>Level of education</b>						
Unable to read or write / can sign	32	21.2	20	14.0	52	17.7
Able to read and write	34	22.5	9	6.3	43	14.6
Grade 1-4	70	46.4	83	58.0	153	52.0
Grade 5-6	2	1.3	11	7.7	13	4.4
Grade 7-9	6	4.0	7	4.9	13	4.4
Secondary school	13	4.6	13	9.1	20	6.8
<b>Employment status</b>						
Self-employed	6	4.0	4	2.8	10	3.4
Retired	140	92.7	129	90.2	269	91.5
Employee	2	1.3	8	1.4	10	3.4

The average age in our sample was  $72.22 \pm 6.13$  years old. It was found that the average age distribution of both genders together was 65.6% aged between 65 and 74 years old followed by 30.3% of those between 75 to 84 years old and 4.1% were above 85 years old. The majority of the participants in the sample were married or living with a partner (70.7%), 3.4% were single, 3.7% were separated or divorced and 22.1% widowed. As for level of education, the majority reported having completed the 4th grade, a total of 153, (52.0%), 70 females (46.4%) and

83 males (58.0%). With regard to employment status, the majority reported being retired (91.5%), the same portion reported being self-employed or working for others.

Regarding the family functionality, 18.7% of the sample perceived their family to be highly functional, 26.9% mildly dysfunctional and 54.4% severely dysfunction.

According to gender, 53.1% of the men in the sample classify their family functionality as severely dysfunction, 24.5% mildly dysfunctional and 22.4% highly functional. As for the women, 55.6% classify their family functionality as severely dysfunctional, 29.1% mildly dysfunctional and 15.2% highly functional (Figure 1). With inferential analysis, it was found that there is no statistically significant association between the variables (chi-square = 2.682,  $df = 2$ ,  $p = 0.262$ ).

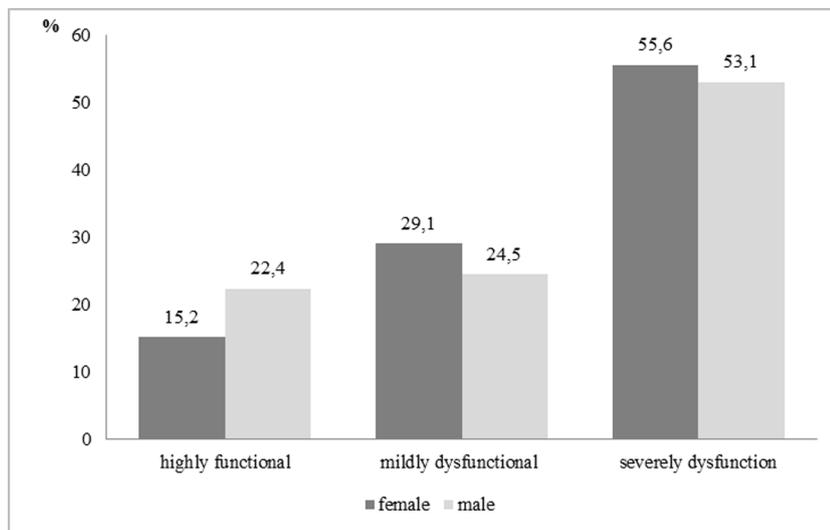


Figure 1. Distribution of the percentage of family functionality by gender.

Regarding the perception of family functionality and age, we found that in the age group of 65-74 years old, 55.4% of the sample classify their family functionality as being highly functional, 28.5% as mildly dysfunctional and 16.1% as severely dysfunction. In the age group of 75 to 84 years, the majority classify their family functionality as highly functional (55.1%), 23.6% as severely dysfunction and 21.3% as mildly dysfunctional. Among elderly patients over 85 years old, the majority classified their family functionality as mildly dysfunctional (41.7%), 33.3% as highly functional and 25.0% as severely dysfunction (Figure 2). It was also observed that there is no statistically significant association between the variables (chi-square = 5.314,  $df = 4$ ,  $p = 0.257$ ).

We can observe that the majority of the elderly in the sample had at least one chronic disease (95.2%). We did not find statistically significant differences by gender ( $p = 0.08$ ) nor with age ( $p = 0.68$ ). The most prevalent chronic diseases in the sample were cardiovascular diseases (77.9%), musculoskeletal (38.8%), endocrine and metabolic diseases (28.9%), respiratory diseases (13.6%), diseases of the genitourinary tract (13.3%); digestive diseases (11.6%), mental disorders (10.9%); oncological diseases (4.4%), hematologic diseases (4.1%) and neurological diseases with only 1.0%. There is a statistically significant relationship between the family APGAR and the presence of chronic illness ( $p < 0.001$ ). The elderly who have chronic diseases classified their family functionality as severely dysfunction (98.1%).

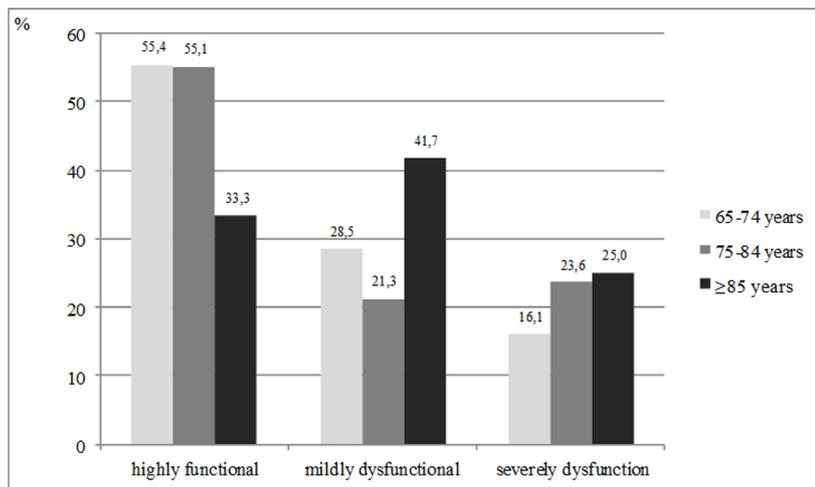


Figure 2. Distribution of the percentage of family functionality by gender.

No statistical significance between the family APGAR and gender was found ( $p = 0.26$ ), age ( $p = 0.26$ ), marital status ( $p = 0.32$ ) and educational level ( $p = 0.28$ ).

## Conclusions

The sample was predominantly female (51.4%). The average age is  $72.22 \pm 6.13$  years. The age distribution in the both genders together, had a ratio of 65.6%, aged between 65 and 74 years old, followed by 30.3% aged between 75 to 84 years old and 4.1% over the age of 85. The majority (70.7%) of the sample is married or living with a partner. A total of 153 (52.0%) reported having completed the fourth grade, 46.4% female and 58.0% male. Regarding employment status, 91.5% are retired.

With regard to family functionality, 18.7% of the elderly perceive their family to be highly functional, 26.9% mildly dysfunctional and 54.4% severely dysfunction.

Regarding gender, 53.1% of the elderly males consider their family to be severely dysfunction, 24.5% as mildly dysfunctional and 22.4% as highly functional. 55.6% of the elderly females in the sample consider their family to be severely dysfunction, 29.1% as mildly dysfunctional and 15.2% as highly functional, no statistically significant association between the variables.

The majority of the sample (95.2%) had at least one chronic disease, not associated with gender or age. The most prevalent chronic diseases among the sample were cardiovascular diseases (77.9%), musculoskeletal (38.8%), endocrine and metabolic diseases (28.9%), respiratory diseases (13.6%), genitourinary tract diseases (13.3%); digestive diseases (11.6%), mental disorders (10.9%); oncological diseases (4.4%), hematologic diseases (4.1%) and neurological diseases with only 1.0%. There is a statistically significant relationship between the family APGAR and the presence of chronic illness. 98.1% of the elderly who have chronic diseases classified their family as being severely dysfunction. We found no statistical significance between the family APGAR and gender, age, marital status and educational level.

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