

FACTORS RELATED TO MULTIDIMENSIONAL FRAGILITY IN ELDERLY PEOPLE

FATORES RELACIONADOS À FRAGILIDADE MULTIDIMENSIONAL EM PESSOAS IDOSAS

FACTORES RELACIONADOS CON LA FRAGILIDAD MULTIDIMENSIONAL EN PERSONAS MAYORES

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Objective: to analyze the sociodemographic and health factors related to multidimensional frailty in elderly people living at home. **Method:** descriptive, exploratory and cross-sectional study, which evaluated 300 elderly enrolled in a Health Unit in the Northern Region of Portugal. The sociodemographic and health conditions of the old people were analyzed, with application of the Tilburg Frailty Index, Falls Efficacy Scale International – 7 items, Barthel Index and Lawton and Brody Scale. **Results:** in the elderly in the study, with a mean age of 81.34±6.75 years, frailty was identified in 60.33%. The related factors were: gender, marital status, self-perceived health, pathological history, severe disease in the last year, polymedication, falls, fear of falling and higher level of dependence. **Conclusion:** multidimensional frailty of the elderly living at home is a prevalent condition. When predictor factors in primary health care are analyzed early, it is possible to intervene in order to delay this syndrome.

Descriptors: Frailty. Aged. Aging. Nursing. Risk Factors.

Objetivo: analisar os fatores sociodemográficos e de saúde relacionados com a fragilidade multidimensional em idosos que vivem no domicílio. *Método:* estudo descritivo, exploratório e transversal, que avaliou 300 idosos inscritos numa Unidade de Saúde da Região Norte de Portugal. *Foram analisadas as condições sociodemográficas e de saúde das pessoas idosas, com aplicação do Índice de Fragilidade de Tilburg, Falls Efficacy Scale International – 7 itens, Índice de Barthel e Escala Lawton & Brody. Resultados:* nos idosos do estudo, com idade média de 81,34±6,75 anos, a fragilidade foi identificada em 60,33%. *Os fatores relacionados foram: gênero, estado civil, autopercepção de saúde, antecedentes patológicos, doença grave no último ano, polimedicação, quedas, medo de cair e maior nível*

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de dependência. Conclusão: a fragilidade multidimensional dos idosos que vivem no domicílio é uma condição prevalente. Quando analisados precocemente os fatores preditores na atenção primária à saúde, é possível intervir de forma a retardar essa síndrome.

Descritores: Fragilidade. Idoso. Envelhecimento. Enfermagem. Fatores de Risco.

Objetivo: analizar los factores sociodemográficos y de salud relacionados con la fragilidad multidimensional en personas mayores que viven en el hogar. Método: estudio descriptivo, exploratorio y transversal, que evaluó a 300 ancianos matriculados en una Unidad de Salud de la Región Norte de Portugal. Se analizaron las condiciones sociodemográficas y de salud de los ancianos, con aplicación del Tilburg Frailty Index, Falls Efficacy Scale International – 7 items, Barthel Index y Lawton and Brody Scale. Resultados: en los ancianos del estudio, con una edad media de 81,34±6,75 años, se identificó fragilidad en el 60,33%. Los factores relacionados fueron: género, estado civil, salud autopercebida, antecedentes patológicos, enfermedad grave en el último año, polimedicación, caídas, miedo a caerse y mayor nivel de dependencia. Conclusión: la fragilidad multidimensional de los ancianos que viven en el hogar es una condición prevalente. Cuando los factores predictores en la atención primaria de salud se analizan temprano, es posible intervenir para retrasar este síndrome.

Descriptorios: Fragilidad. Anciano. Envejecimiento. Enfermería. Factores de Riesgo.

Introduction

The aging of the population is a global phenomenon caused by the decline in birth rate and the increase in life expectancy. In Europe, on average, the proportion of people aged 65 and over in the population is expected to increase from 18.4% in 2013 to 28.4% in 2060⁽¹⁾. The growth will be particularly evident in older adults (aged 80 years or more), which will increase from 5.1% in 2013 to 11.8% in 2060⁽¹⁾.

However, living longer does not mean active, healthy and independent aging⁽²⁾. In fact, unhealthy life years are approximately 20% of a person's life, because, with longevity growing, the prevalence of chronic diseases and frailty also increases, which becomes a challenge for social and health services, not only in Portugal, but worldwide⁽³⁾.

Frailty is a geriatric syndrome that has attracted the interest of the scientific community in recent years due to the consequences it has not only for the elderly, but also for their caregivers, the health system and society⁽³⁾, although there is still no consensus on its definition. Some researchers define frailty based on physical components that make up the phenotype of frailty, such as unintentional weight loss, exhaustion, low physical activity, idling speed and decreased maximum handgrip strength value⁽⁴⁾. Others conceptualize it as an

accumulation of functional deficits, disease states and limitations resulting from psychosocial influence⁽⁵⁾, while other researchers advocate a multidimensional approach, considering that physical, psychological and social factors can increase the vulnerability of the old person⁽⁶⁾. Despite the different approaches, the truth is that, for most researchers, this condition can be prevented, reduced or reversed, minimizing the risk of adverse outcomes, such as decline in functional capacity, falls, delirium, institutionalization and premature death⁽³⁾.

The World Health Organization (WHO) also recommends a holistic approach to health care for frail elderly people⁽²⁾, since paying attention only to physical frailty can lead to fragmentation of care delivery⁽⁶⁾. A multidimensional approach to frailty can be more effective for planning and implementing health care, as well as for establishing prevention programs for frail elderly⁽²⁾.

In this sense, to promote healthy aging, it is important to understand how people age, what sociodemographic and health conditions aggravate the condition of physical and psychological dependence, as well as the risk factors that contribute to frailty in the elderly and greater susceptibility to diseases. Not only is it important to detect possible states of fragility in

these people, but also to monitor their evolution to ensure their quality of life.

Given the scarcity of studies in Portugal that analyze the fragility profile of the elderly in a multidimensional approach, the present study aimed to analyze the sociodemographic and health factors related to multidimensional frailty in elderly people living in the home.

Method

The present study has a descriptive, exploratory and cross-sectional character, based on the strengthening the Reporting of Observational Studies in Epidemiology (STROBE), with a quantitative approach⁽⁷⁾. The research was conducted from October 2020 to May 2021, in elderly enrolled in a Health Unit in a region of northern Portugal. A form was used as a data collection tool.

The study population was elderly people living at home. Inclusion criteria were: being 65 years of age or older; not having cognitive deficits; and be enrolled in a Health Unit in Northern Portugal. All elderly who presented total dependence on self-care and compromised communication were excluded. To verify cognitive capacity, at the beginning of the interview, the evaluation of the old people was evaluated in the following areas: orientation, memory, volition and availability. The sampling technique used was non-probabilistic criterial, as the health professionals were selecting the elderly according to the inclusion criteria, following the list of those enrolled in the Health Unit. Subsequently, recruitment was followed by telephone contact. The sample size was calculated, considering a 95% confidence level and sampling error of 5%, which resulted in a sample of 300 elderly.

In data collection, a structured form constructed by the researchers was used, divided into four parts: sociodemographic characteristics of the older people (gender, age, education, marital status, household); health conditions of the healthy (self-perceived health, pathological history, drug regimen, history of falls, perception of the risk of falling and the Falls Efficacy Scale International (FES-I) –7 items, to assess the fear

of falling⁽⁸⁾); functional capacity of the elderly (Barthel Index⁽⁹⁾, to assess dependence on self-care and Lawton & Brody⁽¹⁰⁾ Index, to assess dependence on instrumental activities of daily living (IADL)); and the condition of frailty of the elderly Tilburg Frailty Index (TFI)⁽¹¹⁾.

The FES-I – 7 items contains seven questions that assess the fear of falling during activities of daily living and socialization. The form of response is Likert type, on a scale of 1 to 4, in which: 1 – not at all worried, 2 – a little worried, 3 – very worried and 4 – extremely concerned. The result of the global scale obtained can vary between 7 and 28, and the score equal to or higher than 15 allows predicting fear of falling in general⁽⁸⁾.

The Barthel Index consists of 10 questions, in which the cut-off points are: 90-100 Independent, 60-85 Slightly dependent, 40-55 Moderately dependent and 20-35 Severely dependent. This means that the elderly who have values <90 manifest dependence on self-care⁽⁹⁾.

The Lawton Index has eight questions and the cut-off points are: 0-5 means severe or total dependence; 6-11, moderate dependence; and 12-16, slight dependence or independent⁽¹⁰⁾.

With regard to TFI, this is a questionnaire divided into two main sections: the first, by questions determining frailty, and the second, composed of 15 questions divided into three components – eight items for the physical component, four items for the psychological component and three items for the social component. In the second section, all items are sorted between 0 and 1 and the cut-off point of the TFI is 6. That is, all those with TFI ≥ 6 are considered frail elderly, with higher scores representing greater frailty⁽¹¹⁾.

The data obtained were processed in the IBM-SPSS statistical program (version 27.0). The sample description was performed using absolute and relative frequencies for qualitative variables; and standard deviation, for quantitative variables. Mann Whitney and Kruskal-Wallis tests were used to analyze the association between the frailty condition and the answers to each item of the form. For all analyses, the significance level 0.05 was considered. The intensity and

direction of the relationship between frailty and dependence in self-care and IADL, number of medications consumed and falls were evaluated using Pearson's correlation coefficient.

The study was approved by the Ethics Committee and Board of Directors of the Health Unit of the Regional Health Administration of the North, where the elderly are enrolled, according to Opinion N 24/2020, taking into account ethical aspects.

Results

Among the 300 elderly who agreed to participate in the study, 181 (60.33%) were female, with a mean age of 81.34 ± 6.75 years, with a concentration of elderly people aged 80 years (58.6%). Most were married (58%) and lived only with their spouse (50.7%), who had an average age of 79.33 ± 6.63 years. The elderly had an average education of 3.73 ± 2.57 years of

schooling, and only 1% did not have the support of the old-age social pension.

It was found that the female gender presented a statistically significant association (0.001) with the condition of frailty. Regarding age, even though there was no significant association with the condition of being frail, it was observed that the majority of the sample of frail elderly (54.7%) were over 80 years old. Regarding education, there was also no statistically significant association, however most of the frail elderly in the sample had the 1st cycle of schooling (46.67%) or were illiterate (41.67%). Regarding marital status, there was a statistically significant association with frailty (<0.001), and it was found that widowed or single elderly had a higher frailty score.

The prevalence of frailty, assessed by the TFI, was 60.33%. The sociodemographic data of the elderly who were associated with the condition of frailty are described in Table 1.

Table 1 – Sociodemographic data of frail and non-frail elderly. Vila Nova de Famalicão, Portugal, 2020-2021. (N=300)

Variables	Frail		Not Frail		p-value
	n	%	n	%	
Gender					
Woman	122	67.40	59	49.58	0.001 (1)
Man	59	32.60	60	50.42	
Age					
≤ 70	16	8.84	7	5.88	0.143 (1)
71-75	27	14.92	9	7.56	
76-80	39	21.55	26	21.85	
81-85	52	28.73	42	35.29	
> 85	47	25.97	35	29.41	
Scholarity					
Illiterate	75	41.67	41	34.45	0.848 (2)
1 st cycle	84	46.67	65	54.62	
2 nd cycle (5 to 6 years)	12	6.67	6	5.04	
3 rd cycle	1	0.56	2	1.68	
High school (10 to 12 years)	5	2.78	2	1.68	
University education	3	1.66	3	2.52	
Marital status					
Single	12	6.60	1	0.84	<0.001 (2)
Married	94	51.9	80	67.23	
Divorced	2	1.10	4	3.36	
Widow	73	40.30	34	28.57	

Source: Created by the author.

(1) Mann-Whitney test.

(2) Kruskal-Wallis test.

Regarding self-perceived health, differences were observed between the sample of frail and non-frail elderly, and the association was statistically significant ($p < 0.001$). There was also a statistically significant association ($p < 0.005$) between the condition of frailty and several pathological antecedents of the elderly, namely musculoskeletal and osteoarticular diseases, endocrine, psychiatric, peripheral vascular and cerebrovascular diseases. As a result of this fact, it was found that, while 99.4% of the frail elderly consumed on average 6.64 ± 2.23 medications and only 0.6% of them did not take medications, 96.6% of the non-frail elderly took an average of 4.03 ± 1.69 medications. The number of medications consumed daily by the elderly presented a statistically significant association with the condition of frailty ($p < 0.001$).

With regard to the history of falling, it was found that the majority of frail elderly (51.38%)

had fallen one or more times in the last three months. Of these, only 22.33% used walking support device, namely the walking stick or the walk. Both the history of one or more falls and the use of walking support device showed a statistically significant association with the condition of frailty ($p < 0.001$ in both), and the elderly who did not use a support device had a higher frailty score.

Most frail elderly (58%) were too afraid of falling, while only 20.2% of non-frail elderly were too afraid of falling. Frail elderly people were too afraid to fall when bathing (53.59%), climbing or descending stairs (50.28%), going up or down a slope (51.38%) and a little afraid to sit in/get up from a chair (49.72%).

The health conditions associated with multidimensional frailty in the elderly are described in Table 2.

Table 2 – Health conditions of frail and non-frail elderly. Vila Nova de Famalicão, Portugal, 2020-2021. (N=300)

Variables	Frail		Not Frail		p-value (1)
	n	%	n	%	
Health self-perception					
Bad	56	30.94	6	5.17	<0.001
Acceptable	105	58.01	29	24.37	
Good	20	11.05	71	59.66	
Very good	-	-	12	10.08	
Excelent	-	-	1	0.84	
Pathological antecedents					
Musculoskeletal disease and osteoarticular	154	85.08	68	57.14	<0.001
Cardiovascular disease	133	73.48	72	60.50	0.064
Endocrine disease	62	34.25	26	21.85	0.025
Psychiatric illness	86	47.51	9	7.56	<0.001
Peripheral vascular disease	44	24.31	12	10.08	0.001
Cerebrovascular disease	39	21.55	4	3.36	<0.001
Background of decline in the last three months					
0	88	48.62	107	89.92	<0.001
1	49	27.07	10	8.40	
2	28	15.47	2	1.68	
3	16	8.84	-	-	
Fear of falling					
None	2	1.10	13	10.90	<0.001
Little	8	4.40	35	29.40	
Some	66	36.50	47	39.50	
Much	105	58.00	24	20.20	

Source: Created by the author.

Note: Conventional signal used:

- Numerical data equal to zero not resulting from rounding.

(1) *Kruskal-Wallis* test.

Frailty had a statistically significant association and moderate negative linear relationship with dependence on self-care (assessed by the Barthel index) and weak negative linear relationship in IADL (assessed using the Lawton & Brody

index). Regarding the association of frailty with the number of daily medications and number of falls, it was also found that it was also statistically significant and the relationship was moderate positive linear, as described in Table 3.

Table 3 – Comparison of mean values, association and relationship between frailty and Barthel Index, Lawton & Brody Index, number of daily medications and number of falls in the sample of frail and non-frail elderly. Vila Nova de Famalicão, Portugal, 2020-2021. (N=300)

Variables	Frail		Not Frail		p value	r value
	Mean	Standard deviation	Mean	Standard deviation		
Barthel Index	81.13	21.19	91.60	17.11	<0.001 (1)	-0.404 (3)
Lawton & Brody Index	7.96	4.74	12.13	4.14	<0.001(1)	-0.271(3)
Number of daily medications	6.64	2.23	4.03	1.69	<0.001 (2)	0.634 (3)
Number of falls in last three months	0.845	0.99	0.12	0.37	<0.001(2)	0.552 (3)

Source: Created by the author.

(1) Mann-Whitney test.

(2) Kruskal-Wallis test.

(3) Pearson's Correlation Coefficient.

Regarding self-care dependence, it was found that the majority of the sample of frail elderly was dependent on self-care bathing (58.56%) and needed help to climb and descend stairs (52.49%). In relation to other self-care, the majority of frail elderly were independent, specifically in self-care eating (91.72%), personal hygiene (86.19%), dressing/undressing (60.77%), using the toilet (76.24%), ambulation (75.69%) and chair-bed transfer (76.24%). Regarding bladder and intestinal control, the majority were independent, respectively 49.17% and 83.98%. From the sample of non-frail elderly, it was observed that the majority was independent in all self-care (78.15%).

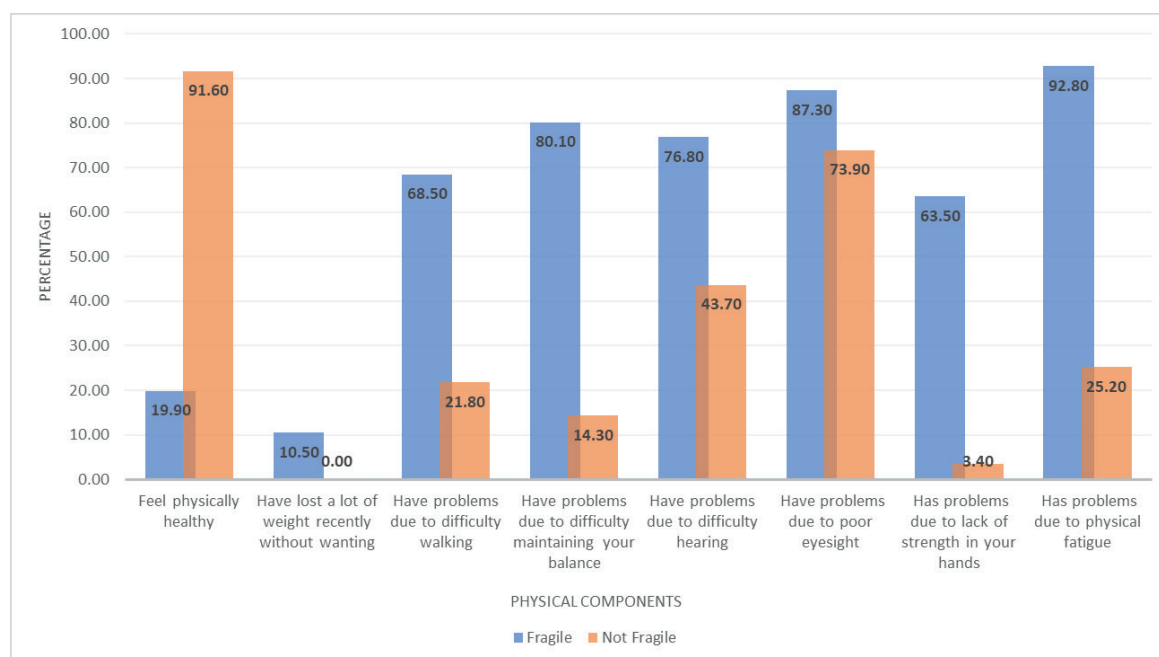
Regarding the IADLs evaluated using the Lawton & Brody Index, it was observed that the majority of frail elderly were self-employed to use the telephone (64.09%), however they needed help to shop (40.33%), to use means of transport (46.41%), to deal with economic issues (46.41%), to take responsibility for medication (46.41%). In addition, they depended entirely on preparing food (36.46%), to take care of the house (44.2%) and wash clothes (41.99%). On the contrary, the

non-frail elderly were self-employed in all IADLs. Analyzing the association between the components of frailty and dependence on activities of daily living (ADL), it was shown that the difficulty of walking and the difficulty of maintaining balance caused difficulties in the daily life of the elderly and were significantly associated with all domains of self-care and IADL ($p < 0.005$).

Regarding each of the determinants of the course of life of the elderly and using the Tilburg Frailty Index, it was evidenced that the experience of a severe disease during the last year was significantly associated ($p = 0.024$) with the condition of frailty, a fact described by 35.91% of the sample of frail elderly.

Concerning the physical components of frailty, it was found that, in the sample of frail elderly, 92.8% reported feeling physical fatigue, 80.1% did not feel physically healthy, 80.1% had problems in daily life due to the difficulty of maintaining their balance, 87.3% had difficulty in vision, 76.8% had difficulty hearing, 68.5% had problems in their daily life due to difficulty walking, and 63.5% had lack of strength in their hands (Graph 1).

Graph 1 – Percentage analysis of the physical components of frailty in the sample of frail and non-frail elderly. Vila Nova de Famalicão, Portugal, 2020-2021. (N=300)

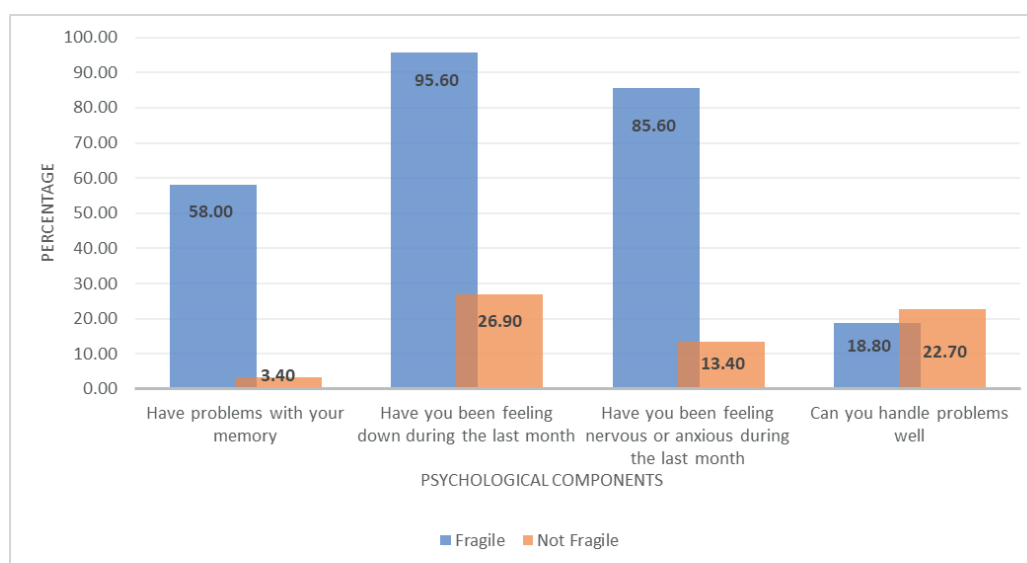


Source: Created by the author.

Regarding the psychological components of frailty, it was demonstrated that, from the sample of frail elderly, 95.6% reported feeling discouraged during the last month, 81.2% were

not able to cope well with their problems, 60% felt nervous or anxious during the last month and 58% had problems with their memory (Graph 2).

Graph 2 – Percentage analysis of the psychological components of frailty in the sample of frail and non-frail elderly. Vila Nova de Famalicão, Portugal, 2020-2021. (N=300)

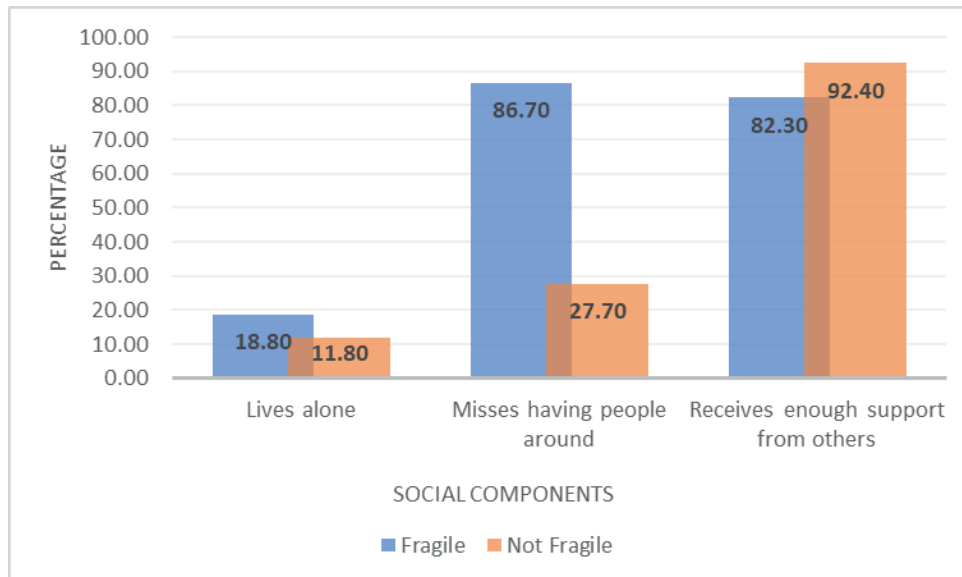


Source: Created by the author.

In relation to the social components of frailty, it was found that, in the sample of frail elderly, 86.7% missed having people around them,

although 82.03% reported receiving sufficient support from other people, and 18.8% lived alone (Graph 3).

Graph 3 – Percentage analysis of the social components of frailty in the sample of frail and non-frail elderly. Vila Nova de Famalicão, Portugal, 2020-2021. (N=300)



Source: Created by the author.

From the analyzed data, it was found that all components of frailty had a significant association with the condition of being frangible ($p < 0.005$), except living alone ($p = 0.105$).

Discussion

In recent years, frailty has received increasing attention regarding efforts to increase healthy life expectancy among the elderly population and improve health care among the elderly⁽³⁾. Although some people remain relatively healthy, active and resilient with aging, others become more vulnerable to stressful events, indicating a state of frailty⁽¹¹⁾.

Frailty is increasingly an important issue for public health. Therefore, identifying modifiable and even non-modifiable risk factors among frail elderly living in the community is increasingly considered useful for the development of interventions aimed at preventing and/or reducing the burden that frailty represents for the elderly. This identification may provide guidance for future public health policies⁽¹²⁾.

In this study, the prevalence of frailty was 60.33%, corroborating international studies that have found numbers between 4% and 59.1%⁽¹³⁾, varying according to the instruments used to assess this condition⁽¹⁴⁾.

The factors associated with multidimensional frailty in elderly people living in the household, identified in this study, were: female gender, single or widowed marital status, self-perceived health between bad and acceptable, pathological conditions such as musculoskeletal and osteoarticular disease, endocrine disease, psychiatric disease, peripheral vascular disease and cerebrovascular disease. They were also associated with the condition of frailty: having experienced a serious disease in the last year, history of falling in the last three months, fear of falling, being polymedicated and dependent on self-care and IADLs. All the physical, psychological and social components of the Tilburg Frailty Index were associated with multidimensional frailty in the elderly, except for the condition of living alone.

The results obtained in the study, especially female, are associated with multidimensional frailty, which is in line with what is described in several international studies⁽¹²⁻¹⁷⁾. A study conducted in Spain mentions that women, as they get older, are more fragile than men and have a higher prevalence of morbidities, physiological loss of muscle mass, related to lower lean mass and sometimes inadequate nutritional intake⁽¹⁵⁾.

As for marital status, an association was also observed with the condition of being fragile. Being single or widowed is a risk factor for the elderly to be more fragile, confirming what is described in the literature that being married and having a family back are protective factors of frailty⁽¹⁸⁾.

Regarding the factor "age", no statistically significant association was found with the condition of being fragile. Although studies refer to age as a risk factor for frailty related to the decline of physiological reserve and other pathological conditions related to aging⁽¹²⁾, other studies suggest that the onset of frailty requires different reasons, in addition to the common aging process⁽¹⁴⁻¹⁵⁾.

With regard to the "schooling" factor, in the sample of this study there was no significant association with the condition of being fragile, diverging from studies that refer to literacy as a protective factor of frailty, because knowledge empowers people for healthy life habits that delay frailty⁽¹²⁾.

With regard to self-perceived health, it was found that it is significantly associated with frailty ($p < 0.001$), corroborating two studies conducted, one in Spain and the other in Korea, which show the low perception of health predicting frailty in the elderly⁽¹⁵⁻¹⁶⁾.

Regarding pathological conditions, it was observed that musculoskeletal and osteoarticular disease presented a high prevalence among frail elderly and with a significant association. A recent study conducted in Sweden reports that musculoskeletal function is a key component in frailty, being associated with osteoporosis, fractures, falls, osteoarthritis and spinal problems⁽¹⁹⁾. This condition is reflected in the risk of falls and in the number of falls among

the elderly, being of high prevalence among frail elderly (51.4%). Chinese researchers have associated the risk of decline in frailty in the elderly due to sarcopenia, due to loss of muscle mass, development of chronic diseases, use of medications and cognitive deficit⁽²⁰⁾. Many elderly people who fall develop fear of falling, which can lead to restriction in daily routine activities, dependence on IADLs, imbalance in gait, social isolation, depression and increased risk of future falls^(17,20).

Endocrine diseases were also associated with frailty, and this confirms studies by Italian researchers, who evidenced, with aging, the occurrence of endocrine alterations in the old, affecting systemic clinical recurrences and the condition of frailty⁽²¹⁾.

Likewise, psychiatric diseases were significantly associated with the condition of frailty, which corroborates the results of recent studies⁽¹⁶⁻¹⁷⁾. Similarly, a recent study conducted in the United Kingdom shows that frailty is emerging as a risk factor for cerebrovascular diseases⁽²²⁾. Peripheral vascular disease was another pathology associated with frailty found in this study, as reported in a recent study⁽²³⁾.

The experience of a severe disease in the last year had a significant association with the condition of frailty, ratifying research developed in Greece⁽²⁴⁾. With advancing age, the increase in the prevalence of chronic diseases becomes more frequent, which often requires greater use of medications⁽¹⁶⁻¹⁷⁾. Due to this fact, polymedication was also associated with the condition of frailty, and this confirms the results of international studies^(12,14,16-17).

In the present study, dependence, both in basic activities and instrumental activities of daily living, was associated with the presence of frailty, a finding similar to that found in a recent investigation conducted in Spain, which found strong associations between frailty and dependence on IADLs⁽¹⁷⁾. The physical frailty expressed through sensory difficulties, such as vision and hearing problems and difficulty in balance, gait and lack of strength in the hands, had a high representation among the frail elderly

in this study, reflecting on the greater fear of falling, dependence on IADLs, as observed in recent studies⁽²⁴⁻²⁵⁾. Symptoms, such as anxiety, memory problems and difficulties in dealing with problems, were also associated with frailty in the elderly who participated in the study. In fact, research shows that poor cognitive performance, as well as psychopathological conditions, predict functional decline and frailty among the elderly^(15-17,24-25).

Social frailty, expressed through the feeling of not having people around them, even though most of them know that they receive sufficient support from other people, has been described by the majority of frail elderly and significantly associated with the condition of frailty, confirming what is described in several studies about the fact that the decrease in social participation caused, sometimes, due to physical and psychological frailty, it leads to a feeling of isolation^(18,24-25).

In this sense, to ensure the well-being of the elderly, it is necessary to detect frailty early in a holistic approach, in which the identification of predisposing factors is essential to prevent the decline of functional capacity, adverse health outcomes and to improve the quality of life of this population segment^(17,25).

A limitation of the study was the fact that the condition of frailty was studied through instruments in which the answers were based on self-reports, and not on objective evaluations by a health professional. This may have contributed to the higher prevalence of this condition, justifying that studies conducted in the future use other data collection instruments/techniques, an aspect that, in a pandemic context, would not be feasible. Another limitation is due to the fact that the participants are only from a geographic area and enrolled in a Health Unit, which prevents the generalization of the results.

This study contributed to increase knowledge about the factors associated with frailty in the elderly. Thus, it is possible to improve the provision of care, since a broad and multidimensional view of frailty will allow to prevent complications associated with this syndrome, as well as to satisfy the needs of the old people.

Conclusion

The determination of factors associated with frailty is fundamental for the development of interventions aimed at preventing the progression of frailty and/or reducing the health burden related to frail elderly.

This study demonstrated that several risk factors can contribute to frailty among the elderly living in the community, namely sociodemographic factors, such as gender and marital status, as well as low self-perception of health, pathological history and falls, fear of falling, poly medication, having experienced a serious disease in the last year and lower functional capacity. Therefore, these factors should be taken into account when developing programs to prevent frailty in the elderly. These results show the need for adjustments in public health policies, specifically in the contexts of primary health care, in which nurses, doctors, physiotherapists, occupational therapists, nutritionists, speech therapists, among others, can make their important contribution.

Multidimensional frailty is a prevalent condition. When predictor factors in primary health care are precociously analyzed, it is possible to intervene in order to delay this syndrome.

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