64 - FRIED'S PHENOTYPE: FRAILTY INCIDENCE AMONG ELDERLY PEOPLE IN A FAMILY HEALTH UNIT

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INTRODUCTION

Demographic aging is a process which, in recent decades, has spread among many Third World countries, including Brazil, where, since the 1960s, population's age has undergone a progressive and rapid increase, and, currently, the elderly people represent about 10% of the entire population (CARVALHO; GARCIA, 2003).

This fact highlights a growing elderly population, subject to multiple comorbidities, which potentiate the onset of geriatric syndromes (RAMOS et al., 2001). The main feature of these syndromes is the impaired functional capacity, bringing many important implications for the elderly person, family, and community, besides causing various changes to the health care system, since impairment can lead to greater vulnerability and dependence, contributing to a decrease in the elderly person's well-being and quality of life (KAPLAN et al., 2003).

Thus, modern geriatrics and the health care professionals have three key pillars which correlate to each other, constituting a path to be followed, which is initially concerned with health promotion by means of primary prevention, in order to acquire a healthy lifestyle, thus improving our understanding on the aging process; then, there is appropriate health care, with the inclusion of professionals trained in geriatrics and gerontology, in order to obtain early diagnosis of diseases whenever possible, seeking to preserve the elderly person's functional capacity; and, finally, rehabilitation of compromised functions, aimed at functional independence and mental autonomy, keeping the individual with no disability or impairment (BIS, 2009).

We also emphasize that a proper frailty incidence rate will encourage the health professionals, especially nurses, to plan and provide a better health care for elderly people, especially for those with more advanced age. Thus, this study aimed to determine the frailty syndrome incidence among elderly people, according to Fried's Phenotype, in a Family Health unit located in the urban area of the town of Cajazeiras, Paraíba, Brazil.

METHODOLOGY

This is a field study, with a quantitative approach, conducted in the Family Health unit “João Bosco Braga Barreto”, Cajazeiras. The sample consisted of 100 elderly people enrolled in this health care service. The inclusion criteria were: being a patient from the urban area; being ≥ 60 years; being conscious and oriented; and agreeing to participate in the research by signing the free and informed consent term. The sample consisted of 100 elderly people who met these criteria.

The research project was submitted to the Research Ethics Committee of Faculdade Santa Maria, and it was approved under the Protocol 240,731. Subsequently, we collected data using a semi-structured questionnaire with questions concerning sample characterization, then, we took the anthropometric measurements (weight and height), and filled the form containing the frailty criteria, proposed by Fried et al. (2001), clinically classifying these elderly people as pre-frail or frail individuals. This classification was applied by researchers to participants at the Family Health unit or even at their homes, and there was no intervention in data collection. Before applying the frailty criteria, we contacted the elderly people and they were informed about the study objectives, etc.

For data processing and analysis, we used the operational definition and the Fried's Phenotype markers; Fried et al. (2001) claim that this is a low-cost and user-friendly instrument, besides providing a basis to standardize the identification of frailty in elderly people. Data were expressed in tables, prepared using the software PASW (version 20), relying on scientifically grounded discussion aimed at a better presentation of variables.

RESULTS AND DISCUSSION

We created and tabulated a database using the software PASW (version 20). Statistical analyzes were performed with Pearson's $\chi 2$; those which obtained a significance ≥ 20% ($p \leq 0.20$) were included into the multivariate binary logistic regression model, the effects were expressed through adjusted odds ratio. In the final model, the accepted significance was $p \leq 0.05$.

The study sample consisted of 100 elderly people; 52% of participants were classified as pre-frail and 48% of participants were classified as frail. Lebrão & Duarte (2003) point out that as population age increases, the incidence of chronic non-communicable diseases is also significantly increased, and they can be largely avoided, since their determinant aspects do not refer only to genetic factors and/or age-related changes, but to environmental and behavioral risk factors.

In this context, Muniz (2008) explains that advanced age has been mentioned, by the elderly individuals themselves, as a synonym of disease, and the author indicates that this population has a chronic nature, involving expenditures which the elderly person is not always able to afford, causing even more discomfort and dissatisfaction. This study did not find out, as explained in the literature, that there is a strong influence of the marker old age on the emergence of frailty.

For classifying frailty, Fried et al. (2001) have proposed a phenotype with 5 indicators. This study, thus, provides a systematic analysis of each item of the survey, carefully measuring the sample with regard to each item (Table 1).

In this context, we have the “history of unintentional weight loss” (Indicator 01), “self-reported fatigue” (Indicator 02), “decreased grip strength” (Indicator 03), “physical activity level” (Indicator 04), and “decreased gait speed” (Indicator 05). According to the phenotype, the elderly person is frail when she/he has 3 or more features, pre-frail when she/he has 1 or 2, non-frail when she/he does not fail with regard to any indicator.

Table 1. Frailty indicators.

		Frailty		Significance
		Pre-frail	Frail	
Indicator 01	Yes	7 (13.5%)	17 (35.4%)	0.01
	No	**45 (86.5%)**	**31 (64.6%)**	
	Total	52 (100%)	48 (100%)	
Indicator 02	Yes	5 (9.6%)	**36 (75.0%)**	0.0
	No	**47 (90.4)**	12 (25.0%)	
	Total	52 (100%)	48 (100%)	
Indicator 03	Yes	19 (36.5%)	**38 (79.2%)**	0.0
	No	**33 (63.5%)**	10 (20.8%)	
	Total	52 (100%)	48 (100%)	
Indicator 04	Yes	**52 (100%)**	**47 (97.9%)**	0.29
	No	0 (0.0%)	1 (2.1%)	
	Total	52 (100%)	48 (100%)	
Indicator 05	Yes	1 (1.9%)	**33 (68.8%)**	0.0
	No	**51 (98.1%)**	14 (29.2)	
	Total	52 (100%)	48 (100%)	

Source: Prepared by the authors.

The results show that elderly women are 5.89 times more likely to be frail when compared to elderly men ($p \leq .05$). Regarding body mass index (BMI), the group showed a significant result ($p \leq 0.05$), since this group is 18.42 times more likely to be frail than the group with normal BMI. Finally, only the indicators 01, 02, and 03 were included into the model. As expected, all of them had a significant result ($p \leq 0.05$), and the indicator 02 showed the greatest ability to explain frailty, because those who are frail for this indicator are 100 times more likely to have overall frailty.

An epidemiological study with women aged from 65 to 79 years was carried out by Fried et al. (2004), who applied the frailty criteria. They found out a higher frailty prevalence among women. Likewise, a research conducted in Spain, where 17% of the entire population is elderly, having a life expectancy of 83.5 years for women and 77.0 years for men, found out that the frailty prevalence is significantly higher in women (30.9%) than in elderly men (9.3%) (FERNANDEZ-BOLAÑOS et al., 2008).

According to Marini, Baisi & Barbosa (2006), in the elderly individual, the decrease in weight and muscle strength in the lower limbs is twice higher than that in the upper limbs. The authors add that the decrease in weight and muscle strength begins after 30 years of age, and it progressively increases after 50 years, resulting in a loss of 15% per decade in the 6th and 7th ones. After this period, the decrease is estimated to be 30% per decade. This loss, in turn, contributes to other changes, such as decreased bone density, decreased sensitivity to insulin, and lower aerobic capacity (VERAS, 2009).

According to Garrido and Menezes (2002), fatigue has been regarded as part of the frailty phenotype in elderly people. The authors claim that self-reported tiredness when performing daily life activities was found as a strong predictor in frail patients.

CONCLUSION

Care for the frail elderly person, as well as for those who already fall into the pre-frail classification, may be ruled by the knowledge of an interdisciplinary team, focusing not only on rehabilitation, but also on health promotion and education, thus favoring a better quality of life for the elderly individual. There is also a need to take care for those already hospitalized due to the frailty syndrome, in order to lead her/him to regain functionality. In the course of time, as the individual gets older, the body becomes more susceptible to this syndrome, compromising quality of life, causing high health-related expenses, and posing a burden on the caregivers. All of these risks may be associated to the frailty syndrome.

We believe that further studies with elderly people may help increasing concrete actions, either in the physical bodily dimensions or by creating an effective social support. Perhaps these actions help these individuals to cope with daily life problems, increasing their ability to face stressors, thus providing them with a better quality of life, free from disabilities and impairments.

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FRIED'S PHENOTYPE: FRAILTY INCIDENCE AMONG ELDERLY PEOPLE IN A FAMILY HEALTH UNIT

ABSTRACT

Objective: determine the frailty syndrome incidence among elderly people, according to Fried's Phenotype, in a Family Health unit. Methodology: exploratory study, with a quantitative approach, carried out in a Family Health unit in the town of Cajazeiras, Paraíba, Brazil. Data were collected in the unity "João Bosco Braga Barreto" in April and May 2013, after approval by the Research Ethics Committee of Faculdade Santa Maria, under the Protocol 240,731. The sample consisted of 100 elderly people. We used a sociodemographic questionnaire and the Fried's Phenotype markers were statistically analyzed using the software PASW, version 20. Results: 52% of participants were classified as pre-frail and 48% were classified as frail. Conclusion: we found out a relatively equitable division between the frailty and pre-frailty frequencies, in addition to a relation to sex and body mass index. We indicate the importance of investing in health policies to minimize the frailty syndrome prevalence among elderly people.

KEYWORDS: Demographic aging. Elderly person. Fried's phenotype. Family Health Unity.

PHÉNOTYPE DE FRIED: INCIDENCE DE LA FRAGILITÉ CHEZ LES PERSONNES ÂGÉES DANS UNE UNITÉ DE SANTÉ DE LA FAMILLE

RÉSUMÉ

Objectif: déterminer l'incidence du syndrome de fragilité chez personnes âgées, selon le Phénotype de Fried, dans une unité de Santé de la Famille. Méthodologie: étude exploratoire, avec une approche quantitative, réalisée dans une unité de Santé de la Famille dans la municipalité de Cajazeiras, Paraíba, Brésil. Les données ont été recueillies dans l'unité "João Bosco Braga Barreto" en Avril et Mai 2013, après approbation par le Comité d'Éthique de la Recherche de la Faculdade Santa Maria, en vertu du Protocole 240.731. L'échantillon a été constitué de 100 personnes âgées. Nous avons utilisé un questionnaire sociodémographique et les marqueurs du Phénotype de Fried ont été analysées statistiquement en utilisant le logiciel PASW, version 20. Résultats: 52% des participants ont été classés comme pré-fragiles et 48% ont été classés comme fragiles. Conclusion: nous avons trouvé une division relativement équitable entre les fréquences de fragilité et pré-fragilité, en plus d'une relation avec le sexe et l'indice de masse corporelle. Nous indiquons l'importance d'investir dans politiques de santé pour minimiser la prévalence du syndrome de fragilité chez personnes âgées.

MOTS CLÉS: Vieillissement démographique. Personne âgée. Phénotype de Fried. Unité de santé familiale.

FENOTIPO DE FRIED: INCIDENCIA DE LA FRAGILIDAD EN ANCIANOS EN UNA UNIDAD DE SALUD DE LA FAMILIA

RESUMEN

Objetivo: determinar la incidencia del síndrome de la fragilidad en ancianos, según el Fenotipo de Fried, en una unidad de Salud de la Familia. Metodología: estudio exploratorio, con abordaje cuantitativo, realizado en una unidad de Salud de la Familia en el municipio de Cajazeiras, Paraíba, Brasil. Los datos fueron recogidos en la unidad "João Bosco Braga Barreto" en abril y mayo de 2013, después de la aprobación por el Comité de Ética en Investigación de la Faculdade Santa Maria, bajo el Protocolo 240.731. La muestra consistió en 100 ancianos. Fue utilizado un cuestionario sociodemográfico y los marcadores del Fenotipo de Fried fueron analizados estadísticamente con el programa PASW, versión 20. Resultados: 52% de los participantes fueron clasificados como pre-frágiles y 48% fueron clasificados como frágiles. Conclusión: se constató una división relativamente equitativa entre las frecuencias de fragilidad y pre-fragilidad, además de relación con el sexo y el índice de masa corporal. Se indica la importancia de invertir en políticas de salud para minimizar la prevalencia del síndrome de la fragilidad en ancianos.

PALABRAS CLAVE: Envejecimiento de la población. Ancianos. Fenotipo de Fried. Unidad de Salud de la Familia.

FENÓTIPO DE FRIED: INCIDÊNCIA DA FRAGILIDADE EM IDOSOS EM UMA UNIDADE DE SAÚDE DA FAMÍLIA

RESUMO

Objetivo: determinar a incidência da síndrome da fragilidade em idosos, segundo o Fenótipo de Fried, em uma unidade de Saúde da Família. Metodologia: estudo exploratório, com abordagem quantitativa, realizado em uma unidade de Saúde da Família no município de Cajazeiras (PB). Os dados foram coletados na unidade "João Bosco Braga Barreto" em abril e maio de 2013, após aprovação pelo Comitê de Ética em Pesquisa da Faculdade Santa Maria, sob o Protocolo n. 240.731. A amostra foi composta por 100 idosos. Foi utilizado um questionário sociodemográfico e os marcadores do Fenótipo de Fried foram analisados estatisticamente por meio do programa PASW, versão 20. Resultados: 52% dos participantes foram classificados como pré-frágeis e 48% foram classificados como frágeis. Conclusão: constatou-se uma divisão relativamente equitativa entre as frequências de fragilidade e pré-fragilidade, além de relação com o sexo e o índice de massa corporal. Indica-se a importância de investir em políticas de saúde para minimizar a prevalência da síndrome da fragilidade em idosos.

PALAVRAS-CHAVE: Envelhecimento da população. Idoso. Fenótipo de Fried. Unidade de Saúde da Família.