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VALIDITY OF THE PRISMA-7 IN THE IDENTIFICATION OF THE FRAILTY SYNDROME IN OLDER ADULTS IN PRIMARY HEALTH CARE

VALIDADE DO PRISMA-7 NA IDENTIFICAÇÃO DA SÍNDROME DE FRAGILIDADE EM IDOSOS NA ATENÇÃO PRIMÁRIA À SAÚDE

LA VALIDEZ DEL PRISMA-7 EN LA IDENTIFICACIÓN DEL SÍNDROME DE FRAGILIDAD EN PERSONAS MAYORES EN ATENCIÓN PRIMARIA

João Paulo de Almeida Tavares[1]
Pedro Miguel Ferreira de Sá Couto[2]
Inês Isabel Santiago Machado[3]
Larissa Chaves Pedreira[4]
Lélia Mendes Sobrinho de Oliveira[5]

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Objective: to validate the Prisma-7 concurrently with the Frailty Phenotype and the Groningen Frailty Indicator. Method: concurrent validity study conducted in primary health care with a convenience sample of 136 older adults. Instrument included sociodemographic, family, clinical, Prisma-7, Frailty Phenotype and Groningen Frailty Indicator variables. In the analysis, we used validity (sensitivity, specificity) and reliability (kappa and percentage of agreement) in relation to the Frailty Phenotype and Groningen Frailty Indicator. Results: Prisma-7 showed specificity/sensitivity of 97%/19.4% and 94%/11.1%, when compared to the Frailty Phenotype and the Groningen Frailty Indicator, respectively. This is partially concordant with the Fragility Phenotype (kappa=0.233, $p<0.01$; Percentage of agreement=76.5%). Prisma-7 and Groningen Frailty Indicator showed low agreement (kappa=0.061, $p>0.05$, Percentage of agreement=77.2%). Conclusion: the Prisma-7, in the context of primary health care, showed low sensitivity and should be used with caution.

Descriptors: Aged. Health of the Elderly. Frailty. Reproducibility of Results. Primary Health Care.

Objetivo: validar o Prisma-7 de forma concorrente com o Fenótipo de Fragilidade e o Indicador de Fragilidade de Groningen. Método: estudo de validade concorrente realizado na atenção primária à saúde com amostra de conveniência de 136 idosos. Instrumento incluiu variáveis sociodemográficas, familiares, clínicas, Prisma-7, Fenótipo de Fragilidade e Indicador de Fragilidade de Groningen. Na análise, utilizou-se a validade (sensibilidade, especificidade) e a confiabilidade (kappa e porcentagem de concordância PC), em relação ao Fenótipo de Fragilidade e Indicador de Fragilidade de Groningen. Resultados: Prisma-7 apresentou especificidade /sensibilidade de

[1] Universidade de Aveiro. Aveiro, Portugal. joaoptavares@ua.pt. https://orcid.org/0000-0003-3027-7978.
[2] Universidade de Aveiro. Aveiro, Portugal. https://orcid.org/0000-0002-5673-8683.
[3] Rehapoint - Posicionamento, Reabilitação e Produtos de Apoio. Porto, Portugal. https://orcid.org/0000-0002-3828-3785.
[3] Universidade Federal da Bahia. Salvador, Bahia, Brasil. https://orcid.org/0000-0001-8939-324X.
[3] Universidade Federal da Bahia. Salvador, Bahia, Brasil. https://orcid.org/ 0000-0001-8375-8826.

97%/19,4% e 94%/11,1%, quando comparado ao Fenótipo de Fragilidade e ao Indicador de Fragilidade de Groningen, respetivamente. Este é parcialmente concordante com o Fenótipo de Fragilidade (kappa=0,233, p<0,01; percentagem de concordância=76,5%). Prisma-7 e Indicador de Fragilidade de Groningen apresentaram concordância baixa (kappa=0,061, p>0,05, Percentagem de Concordância=77,2%). Conclusão: o Prisma-7, no contexto da atenção primária à saúde, apresentou baixa sensibilidade, devendo ser utilizado com prudência.

Descritores: Idoso. Saúde do Idoso. Fragilidade. Reprodutibilidade dos Testes. Atenção Primária à Saúde.

Objetivo: validar el Prisma-7 de forma concordante con el Fenótipo de Fragilidad y el Indicador de Fragilidad de Groningen. Método: estudio de validez concordante realizado en la atención primaria a la salud con la amostra de conveniencia de 136 idosos. El instrumento incluía variables sociodemográficas, familiares, clínicas, Prisma-7, Fenótipo de Fragilidad e Indicador de Fragilidad de Groningen. En el análisis, se utilizó la validez (sensibilidad, especificidad) y la fiabilidad (kappa y porcentaje de concordancia PC) en relación con el Fenotipo de Fragilidad de Groningen y el Indicador de Fragilidad. Resultados: Prisma-7 mostró una especificidad/sensibilidad del 97%/19,4% y del 94%/11,1%, en comparación con el Fenotipo de Fragilidad y el Indicador de Fragilidad de Groningen, respectivamente. Esto es parcialmente concordante con el Fenotipo de Fragilidad (kappa=0,233, p<0,01; porcentaje de concordancia=76,5%). El Prisma-7 y el Indicador de Fragilidad de Groningen mostraron una baja concordancia (kappa=0,061, p>0,05, porcentaje de concordancia=77,2%). Conclusión: el Prisma-7, en el contexto de la atención primaria a la salud, presentó una baja sensibilidad, por lo que debe ser utilizado con prudencia.

Descriptores: Anciano. Salud del Anciano. Fragilidad. Reproducibilidad de los Resultados. Atención Primaria de Salud.

Introduction

Aging is a global reality[1], with demographic, epidemiological, and social repercussions. A reflection of this aging process is the emergence of the frailty syndrome. This represents one of the most relevant geriatric syndromes with the greatest impact on quality of life and well-being of the older adults[2]. Despite being a concept increasingly reported in the literature, there is still an academic debate regarding the nature, definition, characteristics and prevalence of frailty, as highlighted by different review studies[3]. Although there is no unanimous definition of frailty, the following two concepts are central to its understanding. The first to be reported is the state of increased vulnerability, in which, when faced with a stressful situation, older people may be at risk of marked deterioration in their physical, psychological, or social well-being[4]. The second is the multidimensionality of this syndrome, which involves a complex interaction between biological, psychological, and social factors throughout the aging process[5].

Today, frailty is considered a syndrome with implications in clinical practice, and a public health problem[3]. This is due to several factors: frailty occurs in adults of any age, but is more prevalent in older people; the impact of frailty is expected to increase as the world population ages; it is directly associated with adverse health events, such as hospitalizations, functional and cognitive decline, institutionalization, increased morbidity, mortality, and risk of falls[3], and increased health care costs[6]; and the risk for the onset of frailty encompasses multiple socio-demographic and clinical factors, related to lifestyles and biological inheritance[7].

Epidemiological studies show a huge diversity in the prevalence of frailty in community-dwelling elderly, ranging from 4% to 59%[8]. Thus, the assessment of frailty in Primary Health Care (PHC) is fundamental[3]. In recent decades, several instruments for frailty assessment have emerged, as reported by the study that identified 51, 40 of which are used in the community[9]. However, it is important that the instruments be simple and quickly applied so that health professionals can promptly identify frail older people. In this sense, the British Geriatrics Society[10] recommends the assessment of the gait speed, the timed-up-and-go test (TUG) and the use of the Prisma-7 (P7)

as ways to identify frailty in the community. Screening for frailty, using valid and reliable instruments, can help to improve care for the older adult. The implementation of preventive interventions and therapies can minimize the progression of frailty, promote quality of life, and prevent adverse events, also improving the management of health care resources[2-3].

Regarding P7, it proved to be easy and quick to apply in clinical practice, presenting high sensitivity and moderate specificity to identify frail older people in PHC[11-12]. Recently, the P7 has made it possible to predict the mortality of older people in the community, when compared to more complex instruments that require more time to apply[13]. Furthermore, this instrument was validated in different countries, such as Canada[14], Brazil[15], Germany[16], Netherlands[17] and Turkey[18]. In Portugal, translation, adaptation, content validation and interobserver reliability were performed with excellent results[19]. However, no other validity studies have been carried out. Thus, this study aims to contribute to the validation of the P7, through concurrent analysis with other instruments used in the identification of frailty in elderly people in PHC.

Thus, the objective of this study is to validate the Prisma-7 in a concurrent manner with the Frailty Phenotype and the Groningen Frailty Indicator.

Method

A criterion validity study of the concurrent type of the P7 with the Frailty Phenotype and the Groningen Frailty Indicator, carried out with 136 elderly people living in the coverage area of the Family Health Unit (FHU) belonging to the city of Vila Nova de Gaia, Regional Health Administration (RHA) of the North, in Portugal. The study was guided by the recommendations of the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE).

The non-random convenience sampling included 136 older adults (65 years or older) living in the area covered by the FHU. Inclusion criteria were defined as: age 65 years or older and attending a routine medical or nursing appointment at the FHU. The exclusion criteria were: visual and gait impairment that hindered the physical performance tests; inability to communicate orally; patients in long-stay institutions; and history of major neurocognitive disorder, confirmed by clinical and/or family history.

The first contact with eligible older adults was established by health professionals of the FHU who, aware of the inclusion criteria, referred them to the researcher (gerontologist with a master's degree in applied gerontology), after their agreement to participate. Thereafter, the older people (n=136) were approached by the researcher, according to the order of their medical appointment.

Data collection was conducted between April 18 and July 14, 2017, two afternoons (2pm-5pm) and one morning (11am-3pm) per week, in a medical office provided by the USF. The structured interview and a questionnaire were applied to the older adult. This questionnaire was composed of two parts: sociodemographic, family and clinical characterization - gender, age, marital status, level of education, co-habitation (with whom you live and how many people live in the same house), medical history, reason for visiting the FHU, self-assessment of health, weight and height; and application of the P7 instruments, Frailty Phenotype (FP) and Groningen Frailty Indicator (GFI), in a single moment. The FP and the GFI were selected for concurrent validation based on their validation in Portuguese of Portugal, being used in PHC and widely recognized in the identification of frail older adults.

The P7 is composed of seven self-completed or hetero-completed items to identify frailty in the community. The items are composed of domains such as: age >85 years, male gender, health problems that limit activities, need for support from others, health problems that require staying at home, having someone to rely on, use of cane or walker, or wheelchair. The response to the questions is dichotomous: "yes (1 point)" or "no (0 point)." The sum of the answers ranges from 0 to 7; scores ≥3 may

indicate the presence of frailty[14]. The sensitivity and specificity values of the P7 relative to the FP were 0.86 and 0.83, respectively, making it the best instrument to identify frailty in the community[17]. This instrument was translated, adapted and validated into Portuguese from Portugal, with content validity indexes higher than 0.8 and high interobserver reliability (kappa coefficient) (between 0.8 and 1)[19].

The FP[4], in its development, identified a cluster of five signs and symptoms that commonly arise in vulnerable older people (syndromic approach): unintentional weight loss in the last year or 5% or more of body weight in the previous year (direct weight measurement); weakness (reduced grip strength, measured using a dynamometer); self-reported exhaustion; sluggishness and reduced activity. Different adaptations to the FP model have been developed. In this study, we chose the version by Duarte[20], for being validated for the community. The author dichotomized the signs and symptoms proposed in a previous study[4]: have you lost or gained weight for no apparent reason in the last 6 months? Have you been eating worse because of lack of appetite? Do you feel full of energy? Do you usually practice sports activities (swimming, cycling, walking, gymnastics, fitness)? Timed Up and Go Test (TUG) and Palmar Grip Strength - Support/GRIP-D dynamometer, stratified by gender and Body Mass Index (BMI) quartiles, having a reliability between moderate and excellent? A person is considered frail if they present three or more of the mentioned criteria - score 3-5; pre-fragile, presenting one or two of the mentioned criteria - score 1-2; and non-fragile, when they do not present any of the mentioned criteria - score 0. In this study, a cut-off point of ≥3 was used to determine frailty.

The GFI was developed to assess frailty[21]. It includes 15 dichotomous self-report items divided into 8 categories: physical aspects such as mobility; physical fitness (ability), visual difficulties, hearing difficulties; feeding (involuntary weight loss), morbidity; cognitive aspects and psychosocial aspects. Scores range from 0 to 1. Scores <4 points indicate nonfragile older people and ≥4 points, frail older people. This instrument was adapted and validated for the Portuguese population[20] with a Cronbach's alpha of 0.78 and sensitivity and specificity, for a cutoff point of 5, of 0.66 and 0.39, respectively.

The descriptive statistical analysis used frequency, percentage (categorical variables) and mean and standard deviation (quantitative variables) for sociodemographic, family and health characterizations, as well as for all instruments (P7, FP and GFI). In the concurrent validity between the three instruments, the correlation-based methods were applied (Pearson's test in case of linearity and normality, or Spearman Rank test otherwise), chi-square (χ^2) test for contingency tables, and Cohen's Kappa test (≥0.6 moderate and ≥0.8 strong).

The FP and GFI instruments were used to calculate sensitivity (Sens), specificity (Esp), positive predicted values (PPV), negative predicted values (NPV) and percentage of agreement (PC) in relation to P7. Whenever the results are significant, a simple linear regression model is presented, where the dependent variable is FP and GFI and the independent variable is P7. The normality of the residuals of these models was verified by visual inspection of the QQ plot. *The Statistical Package for Social Science*, version 23, was used as statistical support and the significance level considered was 5%. In the statistical analysis, we chose to analyze two age cutoffs (≥65 years and ≥75 years), considering strong correlation between frailty and advanced age[3].

This study was submitted to the Ethics Committee of the Regional Health Administration (RHA) of the North and approved with a favorable opinion (n. 32/2017). Informal, informed and free consent, privacy and confidentiality of participants were ensured.

Results

The study included 136 older adults, of whom 51.5% were women. More than 2/3 are married (76.5%), half attended primary/basic education (52.2%) and preparatory education (17.6%).

Most of the older people (57.4%) lived with their spouse, 27 lived with their spouse and family members, and 25 lived alone. Regarding medical history, hypertension (72.1%), cholesterol (68.4%), and diabetes (32.4%) stood out. The routine consultation was the main reason to go to the FHUS (78.7%). Half of the older adults self-assessed their health as good (51.5%) and 47 (34.6%) as acceptable. According to BMI, most people were either eutrophic or overweight/obese, 40.4% and 48.5%, respectively (Table 1). The prevalence of frail persons was 7.4%, 19% and 26.5%, with the P7, GFI and FP instruments, respectively.

Table 1 – Sociodemographic and clinical characterization of the older adults. Metropolitan area of Porto, Vila Nova de Gaia, Portugal – 2017. (N=136)

Variables	n (%)	Variables	n (%)
Gender		**Clinical Background**	
Male	66 (48.5)	Asthma	6 (4.4)
Female	70 (51.5)	Stroke and transient ischemic attack	4 (2.9)
Age (years)		Cardiac arrhythmia	3 (2.2)
65-74	77 (56.6)	Arthritis	2 (1.5)
75-84	51 (37.5)	Liver problems	1 (0.7)
≥85	8 (5.9)	Cancer	2 (1.5)
Marital status		Hypercholesterolaemia	93 (68.4)
Single	3 (2.2)	Cervicalgia	2 (1.5)
Married	104 (76.5)	Depression	1 (0.7)
União de facto	0 (0)	Diabetes	44 (32.4)
Divorced/Separated	3 (2.2)	Parkinson's Disease	1 (0.7)
Widowed	26 (19.1)	Myocardial Infarction	3 (2.2)
Education level		Hypertension	98 (72.1)
Did not go to school	5 (3.7)	Osteoporosis	1 (0.7)
Did not complete elementary school	18 (13.2)	Facial paralysis	1 (0.7)
Primary/basic education	71 (52.2)	Kidney problems	2 (1.5)
Preparatory education	24 (17.6)	Rheumatism	1 (0.7)
Secondary education	12 (8.8)	Nervous system diseases	1 (0.7)
Professional education	0 (0)	Thyroid Diseases	5 (3.7)
Higher education	6 (4.4)	Dizziness	1 (0.7)
With whom you currently live		Tuberculosis	1 (0.7)
Alone	25 (18.4)	Vasculitis	1 (0.7)
Only with spouse	78 (57.4)	**Reason for visiting Family Health Unit**	
Spouse and family	27 (19.9)	Cervicalgia	5 (3.7)
Children	5 (3.7)	Medical Appointment	9 (6.6)
Neighbors / friends	1 (0.7)	Nursing consultation	5 (3.7)
Self-evaluation of health		Exams	6 (4.4)
Very good	11 (8.1)	Prescription	2 (1.5)
Good	70 (51.5)	Driver's license renewal	1 (0.7)
Acceptable	47 (34.6)	Routine	107 (78.7)
Poor	6 (4.4)	No appointment	1 (0.7)
Very poor	2 (1.5)		
Body Mass Index (Lipschitz)			
<22	15 (11.1)		
22-27	55 (40.4)		
>27	66 (48.5)		

Source: Created by the authors.

Table 2 gives the sociodemographic Variables by Mean/Standard Deviation. Thus, the mean age was 74±6.2 years. The average weight was 71±12.9 kg and the average height was 1.3±0.9 meters.

Table 2 – Sociodemographic Variables of the Older Adults by Mean/Standard Deviation. Metropolitan Area of Porto, Vila Nova de Gaia, Portugal – 2017. (N=136)

Variables	Mean±Standard Deviation
Age (years)	74.0±6.2
Weight (kilograms)	71.6±12.9
Height (meters)	1.63±0.09
Number of people living in the same house	2.3±1.1
Body Mass Index (kilograms/m^2)	27.1±4.5

Source: Created by the authors.

The percentage of frail older people (P7 ≥3 items), was 7.4% (Table 3). Table 3 presents the results per item, highlighting those that obtained higher scores, namely male gender (yes: n=65; no: n=71) and being able to count on the help of someone close (yes: n=118; no: n=18). Regarding the sums of affirmative responses in P7, it was found that: 7(5.1%) obtained a score=0; 61(44.9%) presented a score=1; 58 (42.6%) presented a score=2; 7 (5.1%) obtained a score=3; 2 (1.5%) presented a score=4; only 1 (0.7%) respondent presented a score=5. The median of the scores obtained by P7 was 1.5; 25% quartile = 1.0 75% quartile = 2.0.

Table 3 – Characterization of the older adults according to Prisma-7 items. Metropolitan Area of Porto, Vila Nova de Gaia, Portugal – 2017. (N=136)

Items	Yes n (%)	No n (%)
I1 - Are you older than 85 years?	5 (3.7)	131 (96.3)
I2 - Are you male?	65 (47.8)	71 (52.2)
I3 - In general, do you have any health problems that limit your activities?	9 (6.6)	127 (93.4)
I4 - Do you need someone to help you regularly?	5 (3.7)	131 (96.3)
I5 - In general, do you have any health problems that force you to stay at home?	-	136 (100)
I6 - In case of need, can you count on someone close to you?	118 (86.8)	18 (13.2)
I7 - Do you use regularly a cane, walker, or wheelchair to move around?	9 (6.6)	127 (93.4)
Total (mean±standard deviation)	1.6±0.8	

Source: Created by the authors.

Note: Conventional signal used:
- Numerical data equal to zero not resulting from rouding up.

The results for identifying frailty of the P7 (≥3 items) and FP (≥3 items) instruments for people aged 65 and older showed a specificity of 97% and a sensitivity of 19.4%. The positive predictive value (PPV) and negative predictive value (NPV) were 70.0% and 77.0%, respectively (Table 4). Although there was a significant association between the P7 and FP instruments ($\chi^{2(1)}$=10.508; p=0.004), the level of agreement observed by Cohen's Kappa was low (Kappa=0.214, p<0.05) with a percentage of agreement (PC) of 76.5%. The proposed linear regression model was FP=s1.219+0.295*P7, with a low e value (r=0.204 and R2=0.041). From the analysis for the group of people aged ≥75 years (n=59), there was a specificity of 94.4% and a sensitivity of 26.1%. The PPV and NPV were 75.0% and 67.0%, respectively. Again,

there is a significant association between these Variables ($\chi^{2(1)}$=5.047; p<0.05), the percentage of agreement value was 67.8% and the Kappa value was significant (kappa=0.233, p<0.05).

Table 4 – Distribution of validity indicators of the Prisma-7 according to Frailty Phenotype in older people aged ≥65 years and ≥75 years. Area Metropolitan of Porto, Vila Nova de Gaia, Portugal – 2017 (N=136)

	Prisma-7 Frailty Indicator		
	Frail (+)	**Non-frail (-)**	
	Frailty Phenotype ≥ years old		
Prisma-7 ≥ 75 years old			Positive predictive value = 70.0%
Frail (+)	7	3	Negative predictive value = 77.0%
Non-frail (-)	29	97	
	Specificity = 97.0%	Sensitivity = 19.4%	
	Frailty Phenotype ≥ 75 years old		
Prisma-7 ≥ 75 years old			Positive predictive value = 75.0%
Non-frail (+)	17	34	Negative predictive value = 67.0%
Frail (-)	6	2	
	Sensitivity = 26.1%	Specificity = 94.4 %	

Source: Created by the authors.

From the analysis of the P7 with the GFI, for those aged 65 and older, there was a specificity of 94.0% and a sensitivity of 11.1% (false negative rate was 89.0%) (Table 5). The positive predictive value (PPV) was 30.0% and the negative predictive value (NPV) was 81.0%. The level of agreement by Cohen's Kappa was 0.061 and was not significant, and there was also no regression model. However, the percentage of agreement was 77.2%.

The analysis for the group of people aged ≥75 years showed a specificity of 86.3% and a sensitivity of 13.3%. The PPV and NPV were 25.0% and 74.5%, respectively. The percentage of agreement was 67.8% and Kappa was not significant and presented a low value, with no agreement between the two instruments.

Table 5 – Distribution of validity indicators of the Prisma-7 according to Groningen Frailty Indicator in older people aged ≥65 years and ≥75 years. Metropolitan Area of Porto, Vila Nova de Gaia, Portugal – 2017 (N=136)

	Groningen Frailty Indicator		
	Non-frail (+)	**Frail (-)**	
	Groningen Frailty Indicator ≥ 65 years old		
Prisma-7 ≥ 65 years old			Positive predictive value = 30.0%
Non-frail (+)	24	102	Negative predictive value = 81.0%
Frail (-)	3	7	
	Sensitivity = 11.1%	Specificity = 94.0%	
	Groningen Frailty Indicator ≥ 75 years old		
Prisma-7 ≥ 75 years old			Positive predictive value = 25.0%
Non-frail (+)	13	38	Negative predictive value = 74.5%
Frail (-)	2	6	
	Sensitivity = 13.3%	Specificity = 86.3%	

Source: Created by the authors.

Discussion

The identification of frail elderly people in the FHU is considered crucial in the decision-making process of health professionals[22], which is why the existence of validated and reliable instruments is essential in this process. Thus, this study analyzed the concurrent predictive validity of the P7. From the concurrent analysis, the FP, when compared to the P7, achieved a sensitivity=19.4% and a specificity=97.0%.When compared to the IFG, the sensitivity was 11.1% and the specificity was 94%. Comparing the results of this study with those of two other studies[16-17], (sensitivity=100% and specificity=80) and (sensitivity=86% and specificity=83%) and a Kappa value=0.47, respectively, the specificity values remained in the same order of magnitude. On the other hand, sensitivity values were lower. The agreement between P7 and FP (Kappa=0.214) proved to be reasonable, contrary to the values presented in other studies, in which a moderate agreement was observed[17,23]. For the FP and GFI combination, the results of this study are close to those reported in other validations, and are considered reasonable[17,23].

Some of the data from this validation are not consistent with other studies [4,14,16-17,20,23], the main reason being the low prevalence of frailty obtained with P7 (7.4%) compared to FP and IFG, 19.9% and 26.5%, respectively. It is important to emphasize that the most fragile people no longer come to the FHU. Thus, the results may underestimate the fragility of the population. Moreover, the demographic and clinical characteristics suggest a non-fragile and relatively young population, with good or very good self-assessment of health, that uses the FHU for primary prevention (routine, ordering exams and prescriptions). These factors may lead people to undervalue the P7 questions, namely items 3 (limitation of activities), item 4 (need help) and item 5 (stay at home), contrary to the FP, which presents a more objective method of assessing frailty.

The review study on frailty assessment tools reported that self-report, as is the case of the P7, may influence the results obtained[24]. Finally, when comparing the P7 with the FP and the GFI, it is important to consider that the FP involves performance measures (grip strength and TUG) and the IFG is integrated in the integral model of frailty, including different dimensions (e.g. psychosocial). These factors may have influenced the identification of frail people, in the context of the study, compared to the P7, which is mainly reflected in specificity. In order to improve the accuracy of the P7, it should be applied to an older population, where the prevalence of frailty is probably higher, as well as consider other inclusion and exclusion criteria in PHC.

Future studies should seek to deepen the validity of the P7 by assessing internal consistency, construct validity (factor analysis) and criterion validity, as reported in other studies[14-16,18,23]. Other points to be considered in the future relate to: further evaluation of the psychometric properties of the various tools tested here; standardization of the application of the P7; explanation of the low agreement between the FP and the GFI, which is still under investigation; analysis of the relationship with the TUG over 10 seconds, as well as the validity with other instruments/measures, such as gait speed and assessment of the risk of disability. Studies are still needed to determine the relationship with unfavorable adverse outcomes, such as functional decline, emergency room visits, and hospitalization, among others. In this study, the pathologies were analyzed in isolation, but considering the overlap between frailty and multimorbidity[25]. Thus, future research should consider this variable as a risk factor for this condition.

This study has limitations. First, the small sample size, the fact that the study was carried out in a single FHU, as well as the existence of great variability regarding the operationalization of the FP, which may limit the comparability between studies, leading to the existence of different values[8]. Second, the difference between the recruitment criteria may also have an influence, in the sense that those used in this study may have excluded many patients who could have

answered "yes" in P7. Finally, the interpretation of the questions in P7, namely in items 3, 4 and 5, where the "yes" answers were very low or even 0 (item 5). All questions inserted in each of the instruments were asked to the older people in a rigorous way, and no alternative questions were formulated that could help them interpret the questions. For example, item 4, regularly can have different meanings for the person. That is, the person should be asked whether they need someone to help them every week or every day. If the answer is every week, the researcher should rephrase the question as follows: Do you need someone to help you weekly?

The discussion about whether there should be a previous preparation of the researcher in order to standardize what can be given as clues or not, when the respondent does not understand a question, is an open question. However, about this, it is worth reflecting on professional experience and the need for an expanded look at the need and demands of aging at a time like this. Such elements are important, complementing the evaluation of the older adult in the community, when applying closed evaluative instruments.

As a contribution of this study, we mention that the inclusion of P7 in the identification of frailty, combined with clinical judgment or another screening tool for this condition, may allow for an early identification of this syndrome. This recognition, coupled with the implementation of targeted interventions, may prevent or mitigate the progression of this geriatric syndrome. In addition, P7 is a quick and easy-to-use instrument for PHC professionals, which may represent a relevant resource in the assessment of older people.

Conclusion

The validation data for FP, when compared to P7, showed a sensitivity of 19.4%, specificity of 97%, PPV and NPV of 70% and 77%, respectively. Comparing the GFI to the P7, the sensitivity was 11.1% and the specificity was 94%, PPV and NPV were 30% and 81%, respectively. From the comparison of these instruments, despite the high specificity observed in this study, sensitivity showed lower values than those reported in the literature. For this reason, it may represent good ability to identify the non-fragile older people and less ability to identify the frail older people. Regarding the level of agreement, P7 is partially agreed with FP (kappa=0.233; Percent Agreement=76.5%) and shows significant association. The association between P7 and GFI was not significant and the agreement was low (kappa=0.061, Percent Agreement=77.2%).

Thus, further research should be conducted, to determine the importance of using the P7 in identifying, monitoring and managing primary health care in frail older people.

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Collaborations:

1 – conception and planning of the project: João Paulo de Almeida Tavares and Inês Isabel Santiago Machado;

2 – analysis and interpretation of data: João Paulo de Almeida Tavares, Pedro Miguel Ferreira de Sá Couto and Inês Isabel Santiago Machado;

3 – writing and/or critical review: Larissa Chaves Pedreira e Lelia Mendes Sobrinho de Oliveira;

4 – approval of the final version: João Paulo de Almeida Tavares, Pedro Miguel Ferreira de Sá Couto, Inês Isabel Santiago Machado, Larissa Chaves Pedreira and Lelia Mendes Sobrinho de Oliveira.

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