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Fall risk associated with frailty aspects in community-dwelling octogenarian older adults

Risco de queda associado aos aspectos da fragilidade em pessoas idosas octogenárias da comunidade

Riesgo de caídas asociado con los aspectos de la fragilidad en personas mayores octogenarias comunitarias

ABSTRACT

Objective: To analyze the association between fall risk and frailty in community-dwelling older adults aged 80 years or older. Method: This was a cross-sectional study with a quantitative approach, conducted with community-dwelling older adults aged 80 years and over. **Results:** Frailty in the domains of social support, functional independence, functional performance, mood, and total score was found to be associated with increased risk of falls. Regarding the continence domain, a higher percentage of frail individuals in this aspect was observed among those at risk of falling. **Final remarks:** This study contributes to the advancement of scientific knowledge regarding the health of the oldest old adults by identifying the key domains of frailty associated with fall risk. The findings expand the body of scientific evidence and support the development of more sensitive preventive strategies.
Descriptors: Aged; Accidental falls; Frailty.

RESUMO

Objetivo: Realizar uma análise de associação entre o risco de quedas e a fragilidade em pessoas idosas da comunidade com 80 anos ou mais. **Método:** Estudo transversal, com abordagem quantitativa, realizado com pessoas idosas com 80 anos ou mais que vivem na comunidade. **Resultados:** Indivíduos que apresentaram fragilidade nos domínios suporte social, independência funcional, performance funcional, humor e escore total apresentaram associação com o risco de quedas. Quanto ao domínio continência, na comparação intergrupos, é observado um percentual maior de pessoas idosas com fragilidade relacionada a esse aspecto no grupo com risco. **Considerações finais:** O presente estudo contribui para o avanço do conhecimento científico sobre a saúde de pessoas idosas mais velhas, ao evidenciar os principais domínios de fragilidade associados ao risco de queda, ampliando o corpo de evidências científicas e possibilitando o embasamento de medidas preventivas mais sensíveis.
Descritores: Idoso; Acidentes por quedas; Fragilidade.

RESUMEN

Objetivo: Analizar la asociación entre el riesgo de caídas y la fragilidad en personas mayores de la comunidad con 80 años o más. **Método:** Estudio transversal con enfoque cuantitativo, realizado con personas mayores de 80 años o más que viven en la comunidad. **Resultados:** Se observó una asociación entre el riesgo de caídas y la presencia de fragilidad en los dominios de apoyo social, independencia funcional, desempeño funcional, estado de ánimo y puntaje total. En cuanto al dominio continencia, se evidenció un mayor porcentaje de personas mayores con fragilidad en este aspecto dentro del grupo con riesgo. **Consideraciones finales:** El presente estudio contribuye al avance del conocimiento científico sobre la salud de las personas mayores de edad avanzada, al evidenciar los principales dominios de la fragilidad asociados al riesgo de caídas. Estos hallazgos amplían el cuerpo de evidencia científica y respaldan la implementación de medidas preventivas más sensibles.
Descriptores: Anciano; Accidentes por caídas; Fragilidad.

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INTRODUCTION

The growing aging population underscores the need for further studies on the health of older adults. In this context, falls represent a particularly concerning phenomenon when they affect this population group. Research summarized in a systematic review reported a global prevalence of 26.5% of falls among older adults[1].

A fall is defined as an unintentional event that results in a change of position to a lower level relative to the starting point, with or without impact against a solid surface, and is associated with multifactorial causes[2]. Both individual factors—such as physical and psychological conditions—and external factors, including environmental aspects, contribute to the occurrence of falls [2,3].

Among the risk factors associated with falls , frailty is especially relevant in older adults[4,5,6]. A study conducted in China found that the higher the degree of frailty, the greater the risk of falls among the older population[7]. Concerning the oldest age groups, a review of Brazilian studies identified that the oldest-old tend to be more frail[8]. In this sense, individuals aged 80 years or older are more likely to present an increased risk of falls[9,10].

Globally, falls are recognized as one of the major public health problems among older adults . In the United States, 20% to 30% of individuals over 60 years of age who experience a fall suffer moderate to severe injuries, such as bruises, hip fractures, and traumatic brain injuries. According to the World Health Organization (WHO), older adults experience a higher incidence of fatal falls[11].

In Brazil, the scenario is similar. A study analyzing data from 2000 to 2019 revealed 135,209 reported deaths resulting from falls among this population. The mortality rate was comparatively higher among those aged 80 years or older, reaching up to 25% among individuals with a history of previous falls [12].

The rationale for conducting this study goes beyond the relevance of falls among older adults, which constitute a serious public health concern . The population aged 80 years and older presents particular characteristics that markedly increase their risk of falling, leading to greater potential for morbidity and mortality . By presenting results obtained in Primary Health Care (PHC), this study reinforces the importance of stronger multidisciplinary action in fall prevention among these individuals.

Therefore, this study aims to contribute to the advancement of knowledge by analyzing the association between fall risk and frailty in community-dwelling older adults aged 80 years and over. The study hypothesizes that different components of frailty exhibit distinct patterns of association with fall risk within this age group.

METHOD

This cross-sectional, quantitative study was conducted among community-dwelling older adults assisted by PHC services in the municipality of Santa Cruz, located in the state of Rio Grande do Norte, Brazil.

The study population was estimated using public data, which indicated that 1,003 individuals aged 80 years or older resided in the municipality during the study period. The sample was obtained using a non-probabilistic, intentional, and convenience sampling method. Assuming a homogeneous sample, a 95% confidence

level, and a 6% margin of error, the required sample size was calculated to be 147 participants . A total of n = 72 individuals completed the study.

Inclusion criteria were: age ≥ 80 years; registration with a PHC unit in the municipality where the study was conducted; and residing in the city for at least six months prior to data collection. Exclusion criteria included documented or reported severe cognitive impairment (previous diagnoses of cognitive disorders informed by the participant, family members, or legal caregivers).

Data collection took place between June 2023 and March 2024 through face-to-face interviews using structured instruments. The interviews were conducted in PHC units, participants' homes, or university facilities, according to prior scheduling. Neither researchers nor participants were blinded, and no randomization was used for group allocation.

Sociodemographic characterization was obtained using the Older Adult Health Handbook (Caderneta de Saúde da Pessoa Idosa), an instrument provided by the Brazilian Ministry of Health for monitoring older adults in Primary Health Care[13]. Information extracted from this instrument included gender, age, marital status, self-reported skin color, and education level.

Fall risk was assessed using the Fall Risk Score (FRS), which includes items addressing fall history , medication use, sensory deficits, mental state, and gait difficulties. Scores range from 0 to 11 points, and individuals scoring > 3 were classified as being at risk for falls(14,15). In this study, participants were categorized into two groups : "At risk" and "Not at risk," representing the dependent variable . Participants identified as being at risk for falls received guidance and recommendations on fall prevention strategies but were not referred to any professional services.

Frailty was measured using the Edmonton Frail Scale (EFS), which evaluates nine domains: cognitive status, general health status, functional independence, social support to meet daily needs , medication use (including polypharmacy, defined as the use of five or more medications), nutrition (based on weight loss), mood, continence, and functional performance. Based on the total score, individuals are classified as severely frail (> 11 points), moderately frail (9–10 points), mildly frail (7–8 points), apparently vulnerable (5–6 points), or non-frail (0–4 points), with a total score ranging from 0 to 22[16,17].

For this study, the categories were reorganized into "With frailty" (> 5 points) and "Without frailty" (0–4 points). The total score was converted into a scalar variable to enable relevant statistical analyses. .

All instruments used were validated for Brazilian Portuguese, and no missing data were identified during assessment.

Data were tabulated using Microsoft Excel 2019 (Microsoft Corporation, Washington, WA, USA) and analyzed with the Statistical Package for the Social Sciences (SPSS), version 21.0 (IBM, Armonk, NY, USA). The Kolmogorov–Smirnov normality test indicated a non-normal distribution of the sample. Therefore, nonparametric tests were applied: Pearson's chi-square and Fisher's exact tests for associations between categorical variables, and the Mann–Whitney U test for associations between scalar variables. Data were presented as absolute (n) and relative (%) frequencies, as well as means and standard deviations (SD), with their respective percentiles (25th, 50th, and 75th). A 95%

confidence interval (95% CI) and a 5% significance level ($p < 0.05$) were adopted for statistical analyses.

All ethical aspects were respected in accordance with Resolution No. 466/2012 of the Brazilian National Health Council. The study was approved by the Research Ethics Committee of the Federal University of Rio Grande do Norte (approval number 4.267.762).

RESULTS

The total sample comprised n = 72 participants, of whom n = 39 (54.1%) were identified as being at risk of falls. Table 1 presents the sociodemographic profile of these participants. The sample was predominantly composed of women , without a partner, those self-identified as White , and with basic literacy. No statistically significant associations were found between sociodemographic characteristics and fall risk, indicating similar profiles across the study groups.

Table 1 - Sociodemographic and health characterization of older adults by fall risk (n = 72), Santa Cruz/Rio Grande do Norte, 2024

Sociodemographic profile	Fall Risk (FRS)						
	Without risk (n = 33)		At risk (n = 39)		Total (n = 72)		
	n	%	n	%	n	%	p*
Gender							
Female	18	54.5	23	59.0	41	56.9	0.705
Male	15	45.5	16	41.0	31	43.1	
Marital status							
With a partner	10	30.3	16	41.0	26	36.1	0.345
Without a partner	23	69.7	23	59.0	46	63.9	
Skin color							
White	18	54.5	22	56.4	40	55.6	0.874
Non-white	15	45.5	17	43.6	32	44.4	
Literacy							
Literate	24	72.7	28	71.8	52	72.2	0.930
Illiterate	9	27.3	11	28.2	20	27.8	

Source: Prepared by the authors.
*Pearson's chi-square test.
FRS: Fall Risk Score.

Table 2 - Categorical analysis of frailty domains by fall risk (n = 72), Santa Cruz/Rio Grande do Norte, 2024

Domains of frailty (EFS)	Fall Risk (FRS)						
	Without risk (n = 33)		At risk (n = 39)		Total (n = 72)		
	n	%	n	%	n	%	p*
Knowledge							
Without frailty	10	30.3	7	17.9	17	23.6	0.219
With frailty	23	69.7	32	82.1	55	76.4	
Previous hospitalization							

Continua

Domains of frailty (EFS)	Fall Risk (FRS)						
	Without risk (n = 33)		At risk (n = 39)		Total (n = 72)		
	n	%	n	%	n	%	p*
Without frailty	2	6.1	4	10.3	6	8.3	0.681 †
With frailty	31	93.9	35	89.7	66	91.7	
Self-perceived health							
Without frailty	31	93.9	35	89.7	66	91.7	0.681 †
With frailty	2	6.1	4	10.3	6	8.3	
Functional independence							
Without frailty	21	63.6	26	66.7	47	65.3	0.788
With frailty	12	36.4	13	33.3	25	34.7	
Social support							
Without frailty	16	48.5	9	23.1	25	34.7	**0.024**
With frailty	17	51.5	30	76.9	47	65.3	
Polypharmacy							
Without frailty	28	84.8	29	74.4	57	79.2	0.275
With frailty	5	15.2	10	25.6	15	20.8	
Medication recall							
Without frailty	27	81.8	25	64.1	52	72.2	0.094
With frailty	6	18.2	14	35.9	20	27.8	
Nutrition							
Without frailty	24	72.7	21	53.8	45	62.5	0.099
With frailty	9	27.3	18	46.2	27	37.5	
Mood							
Without frailty	26	78.8	27	69.2	53	73.6	0.359
With frailty	7	21.2	12	30.8	19	26.4	
Continence							
Without frailty	25	75.8	20	51.3	45	62.5	**0.033**
With frailty	8	24.2	19	48.7	27	37.5	
Functional performance							
Without frailty	22	66.7	19	48.7	41	56.9	0.125
With frailty	11	33.3	20	51.3	31	43.1	
Total score							
Without frailty	15	45.5	8	20.5	23	31.9	**0.024**
With frailty	18	54.5	31	79.5	49	68.1	

Source: Prepared by the authors.
*Pearson's chi-square test.
† Fisher's exact test.
FRS: Fall Risk Score.
EFS: Edmonton Frail Scale.

Table 3 presents the analysis of the association between the continuous variables of the frailty domains (EFS) and fall risk (FRS) In the between-group comparison, participants classified as being at risk of falls showed poorer scores in the frailty domains of functional independence, mood, and functional performance, as well as in the total frailty score.

Table 3 - Scalar analysis of frailty domains by fall risk (n = 72), Santa Cruz/Rio Grande do Norte, 2024

Domains of frailty (EFS)	Fall Risk (FRS)				
	Without risk (n = 33)		At risk (n = 39)		
	Percentile 25-50-75	Mean (SD)	Percentile 25-50-75	Mean (SD)	p*
Knowledge	0.0 - 2.0 - 2.0	1.3 (0.9)	1.0 - 2.0 - 2.0	1.4 (0.7)	0.757
Previous hospitalization	0.0 - 0.0 - 0.0	0.1 (0.2)	0.0 - 0.0 - 0.0	0.1 (0.5)	0.494
Self-perceived health	0.0 - 0.0 - 1.0	0.4 (0.5)	0.0 - 0.0 - 1.0	0.4 (0.7)	0.978
Functional independence	0.0 - 1.0 - 1.5	0.8 (0.8)	1.0 - 1.0 - 2.0	1.2 (0.8)	**0.031**
Social support	0.0 - 0.0 - 0.0	0.1 (0.2)	0.0 - 0.0 - 0.0	0.1 (0.3)	0.788
Polypharmacy	0.0 - 0.0 - 0.0	0.2 (0.3)	0.0 - 0.0 - 1.0	0.4 (0.5)	0.097
Medication recall	0.0 - 0.0 - 1.0	0.3 (0.5)	0.0 - 0.0 - 1.0	0.5 (0.5)	0.131
Nutrition	0.0 - 0.0 - 0.0	0.2 (0.4)	0.0 - 0.0 - 1.0	0.3 (0.5)	0.337
Mood	0.0 - 0.0 - 0.5	0.2 (0.4)	0.0 - 0.0 - 1.0	0.5 (0.5)	**0.034**
Continence	0.0 - 0.0 - 1.0	0.3 (0.5)	0.0 - 1.0 - 1.0	0.5 (0.5)	0.113
Functional performance	0.0 - 1.0 - 1.0	0.7 (0.6)	1.0 - 1.0 - 2.0	1.1 (0.7)	**0.009**
Total score	2.0 - 5.0 - 6.5	4.5 (2.7)	5.0 - 6.0 - 9.0	6.5 (2.6)	**0.011**

Source: Prepared by the authors.
*Mann–Whitney U test.
FRS: Fall Risk Score.
EFS: Edmonton Frail Scale.

DISCUSSION

The main findings of this study revealed associations between the presence of fall risk and higher levels of frailty. In this regard, the categorical analysis highlighted the domains of social support and continence, while the scalar analysis indicated that impairments in functional performance and mood were most strongly associated with fall risk. These findings contribute to the existing literature by providing a dual-perspective analysis between two groups with similar sociodemographic profiles but differing fall risk statuses. The literature points out that falls among older adults are multifactorial events influenced by both environmental and intrinsic factors, such as visual acuity, balance, general physical health, and unmodifiable conditions such as gender and chronic diseases[18].

In the present study, no significant associations were observed between sociodemographic characteristics and fall risk, suggesting that these factors did not influence the likelihood of falls. However, a study conducted in China found a higher prevalence of falls among older women, although it did not distinguish by advanced age[7].

When examining associations among the variables of interest, older adults who exhibited frailty in the domains of social support, functional independence, functional performance, mood, and total frailty score showed significant associations with fall risk, particularly in the scalar analysis. In the continence domain, intergroup comparison revealed a higher percentage of older adults with frailty in this aspect among those at risk for falls.

According to the theoretical framework of the assessment instrument used, the social support domain is related to the individual's ability to rely on others for assistance with daily needs[16,17]. In this study an association was observed between frailty in this domain and fall risk. A study conducted in Colombia found that older adults who received greater support

from their children and positively evaluated these relationships experienced fewer falls. Thus, social support acted as a protective factor, contributing to fall prevention[19].

Regarding mood, when participants were asked about habitual feelings of sadness, a significant relationship was also found with fall risk in the present study. A study conducted in Thailand reported similar findings, showing that middle-aged and older adults with probable or incident depression had a history of multiple falls[20].

The literature further suggests that depression can influence fall risk, as social factors may exacerbate the psychological burden on older adults, reducing self-care capacity, an important determinant in fall risk[21]. It is therefore plausible to consider an interrelationship between the domains of mood and social support, as their interaction may heighten vulnerability to falls among older adults.

In relation to functionality, the domain of functional independence assesses abilities related to instrumental activities of daily living, such as telephone use, money management, and medication administration, whereas the domain of functional performance evaluates the time and ease with which the individual walks approximately six meters[16,17]. Although these domains measure distinct aspects, both relate to functional capacity, and frailty in either domain was associated with an increased risk of falls. .

Physical inactivity and reduced functional capacity are widely recognized in the literature as risk factors for falls[9]. Moreover, impairments in balance and mobility are also linked to increased fall risk among older adults, as they directly affect physical functionality[2]. An interventional study involving institutionalized older adults found an association between female gender, compromised physical function, and the occurrence of falls. However, following interventions aimed at improving physical conditioning, no statistically significant differences were observed between the intervention and control groups in the incidence of falls[22].

Despite these findings, it is important that activities involving ambulation or intense movement in older adults may temporarily increase fall risk[23]. Nonetheless, researchers have reported that while the risk may increase , the resulting improvements in functional capacity are substantial and outweigh the potential risk of falls during such activities[24].

Regarding continence, the EFS assesses whether the individual experiences unwanted urine loss, and it was observed that those at risk of falls showed a higher percentage of frailty in this domain[16,17]. A systematic review also confirmed the relationship between urinary incontinence and fall risk[25]. Urinary incontinence can negatively affect self-esteem and lead to social isolation among older adults. . Although the causal direction of this relationship remains uncertain, it has been hypothesized that a strong urge to urinate may alter gait patterns , and that mobility or balance impairments may contribute to incontinence by delaying access to the bathroom[25].

An association between the total EFS score and fall risk was also observed in the study sample. This finding is consistent with a study conducted in China, which identified a relationship between frailty and the risk of falls, particularly among older women[7].

Furthermore, a recent study demonstrated a high incidence of fall risk among older adults with frailty syndrome, showing that greater frailty was associated with a higher prevalence of falls [10]. This finding also suggests a bidirectional relationship, in which established frailty increases the risk of falls, while falls may, in turn, exacerbate frailty [10,19].

Overall, these findings underscore the importance of addressing multiple domains of frailty in older adults, especially social support, functional independence, mood, and functional performance, to prevent falls, a condition that not only contributes to frailty but can also lead to various adverse and even fatal outcomes. Nursing professionals in PHC play a critical role in mitigating fall risk related to these domains , as multidimensional assessment is a cornerstone of nursing practice . This involves identifying social, functional, and mental health needs, promoting health education, and involving family members in fall prevention by reducing environmental hazards within the home . Additionally, the promotion of healthy habits, such as regular physical activity and adequate nutrition, holds significant potential for improving the functional health and overall well-being of older adults .

FINAL CONSIDERATIONS

This study demonstrated that the frailty domains of social support, functional independence, functional performance, and mood were associated with fall risk among community-dwelling older adults aged 80 years and above. These findings support the study's initial hypothesis.

By identifying the primary frailty domains associated with fall risk, this research contributes to the advancement of scientific knowledge regarding the health of the oldest-old population. It expands g the evidence base on the interplay of multifactorial conditions that affect autonomy and quality of life. This perspective provides a foundation for developing more sensitive and integrated preventive strategies and clinical protocols that address both the physical and psychosocial aspects of frailty as risk factors for falls.

The limitations of this study include its cross-sectional design, which prevents establishing causal relationships among the evaluated variables. Additionally, the minimum sample size estimated in the initial calculation was not reached . The researchers encountered difficulties locating participants at the registered addresses, resulting to underrepresentation of the target population. The sample's characteristics—drawn from a single research setting with specific cultural features also restrict the external validity and generalizability of the results to other contexts. Nonetheless, the data may serve as a useful reference for comparisons with populations that share similar sociodemographic and cultural profiles.

Future research should include interventional and randomized clinical trials to test strategies aimed at improving frailty among older adults, considering the potential for reducing fall risk in this population.

REFERENCES

1. Salari N, Darvishi N, Ahmadipanah M, Shohaimi S, Mohammadi M. Global prevalence of falls in the older adults: a comprehensive systematic review and meta-analysis. J Orthop Surg Res [internet]. 2022;17(1):334. DOI: 10.1186/s13018-022-03222-1

2. Jehu DA, Davis JC, Falck RS, Bennett KJ, Tai D, Souza MF, et al. Risk factors for recurrent falls in older adults: a systematic review with meta-analysis. Maturitas [internet]. 2021;144:23-8. DOI: 10.1016/j.maturitas.2020.10.021

3. Rafanelli M, Mossello E, Testa GD, Ungar A. Unexplained falls in the elderly. Minerva Med [internet]. 2022;113(2):263-72. DOI: 10.23736/S0026-4806.21.07749-1

4. Yang ZC, Lin H, Jiang GH, Chu YH, Gao JH, Tong ZJ, et al. Frailty is a risk factor for falls in older adults: a systematic review and meta-analysis. J Nutr Health Aging [internet]. 2023;27(6):487-95. DOI: 10.1007/s12603-023-1935-8

5. Diniz MAA, Zazzetta MS, Gomes GAO, Orlandi FS, Kusumota L, Gratão ACM. Frailty in younger-old and oldest-old adults in a context of high social vulnerability. Geriatr Gerontol Aging [internet]. 2022;16:e0220024. DOI: 10.53886/gga.e0220024

6. Phelan EA, Ritchey K. Fall prevention in community-dwelling older adults. Ann Intern Med [internet]. 2018;169(11):ITC-81-ITC96. DOI: 10.7326/AITC201812040

7. Jiang L, Ding S, Wang J. The association between frailty and falls among individuals aged 60 years and older residing in community settings and experiencing hip fractures in China: a cross-sectional study. Aging Male [internet]. 2025;28(1). DOI: 10.1080/13685538.2024.2442571

8. Steffens T, Lamp JS, Pietta-Dias C. A fragilidade em idosos brasileiros. Open Science Research VI. São Paulo: Editora Científica Digital; 2022. p. 511-25. ISBN: 978-65-5360-212-0. DOI: 10.37885/220910375

9. Santos VB, Teixeira CMPP, Franco MF. Relação entre quedas e capacidade funcional na população idosa: uma revisão de literatura. Rev Fac Sab [internet]. 2024;9(20):71-82. Disponível em: https://rfs.emnuvens.com.br/rfs/article/view/260/193

10. Taguchi CK, Menezes PL, Melo ACS, Santana LS, Conceição WRS, Souza GF, et al. Síndrome da fragilidade e riscos para quedas em idosos da comunidade. Co-DAS [internet]. 2022;34(6):e20210025. DOI: 10.1590/2317-1782/20212021025pt

11. Organização Mundial da Saúde (OMS). Quedas. Genebra: Organização Mundial da Saúde [internet]; 2021. Disponível em: https://www.who.int/news-room/fact-sheets/detail/falls

12. Gonçalves ICM, Freitas RF, Aquino EC, Carneiro JA, Lessa A do C. Tendência de mortalidade por quedas em idosos, no Brasil, no período de 2000-2019. Rev Bras Epidemiol [internet]. 2022;25:e220031. DOI: 10.1590/1980-549720220031.2

13. Brasil. Caderneta de Saúde da Pessoa Idosa. 5a edição. Brasília: Ministério da Saúde [internet]; 2017. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/caderneta_saude_pessoa_idosa_5ed.pdf

14. Schiaveto FV. Avaliação do risco de quedas em idosos na comunidade [dissertação]. São Paulo: Universidade de São Paulo [internet]; 2008. Disponível em: https://www.teses.usp.br/teses/disponiveis/22/22132/tde-19122008-153736/publico/FabioVeigaSchiaveto.pdf

15. Downton JH. Falls in the elderly. London: Edward Arnold; 1993.

16. Castro ML, Alves M, Martins A, Papoila AL, Botelho MA, Fragata J. Reproducibility and validity of the Portuguese Edmonton Frail Scale version in cardiac surgery patients. Rev Port Cardiol [internet]. 2023;42(4):295-304. DOI: 10.1016/j.repc.2022.03.009

17. Roopsawang I, Thompson H,

Zaslavsky O, Belza B. The reported Edmonton Frail Scale-Thai version: development and validation of a culturally-sensitive instrument. Nurs Health Sci [internet]. 2020;22(3):685-93. DOI: 10.1111/nhs.12713

18. Colón-Emeric CS, McDermott CL, Lee DS, Berry SD. Risk assessment and prevention of falls in older community--dwelling adults: a review. Jama [internet]. 2024;331(16):1397-406. DOI: 10.1001/jama.2024.1416

19. Moncayo-Hernández BA, Dueñas -Suarez EP, Reyes-Ortiz CA. Relationship between social participation, children's support, and social frailty with falls among older adults in Colombia. Ann Geriatr Med Res [internet]. 2024;28(3):342-51. DOI: 10.4235/agmr.24.0059

20. Pengpid S, Peltzer K. Tridirectional association between probable depression, fear of falling and falls among middle-aged and older adults in Thailand. Arch Gerontol Geriatr [internet]. 2023;109:104955. DOI: 10.1016/j.archger.2023.104955

21. Xu Q, Ou X, Li J. The risk of falls among the aging population: a systematic review and meta-analysis. Front Public Health [internet]. 2022;10:902599. DOI: 10.3389/fpubh.2022.902599

22. Sadaqa M, Debes WA, Németh Z, Bera-Baka Z, Vachtler-Szepesi M, Földes LN, et al. Multicomponent exercise intervention for preventing falls and improving physical functioning in older nursing home residents: a single-blinded pilot randomised controlled trial. J Clin Med [internet]. 2024;13(6):1577. DOI: 10.3390/jcm13061577

23. Caristia S, Campani D, Cannici C, Frontera E, Giarda G, Pisterzi S, et al. Physical exercise and fall prevention: a systematic review and meta-analysis of experimental studies included in Cochrane reviews. Geriatr Nurs [internet]. 2021;42(6):1275-86. DOI: 10.1016/j.gerinurse.2021.06.001

24. Del Din S, Galna B, Lord S, Nieuwboer A, Bekkers EMJ, Pelosin E, et al. Falls risk in relation to activity exposure in high-risk older adults. J Gerontol A Biol Sci Med Sci [internet]. 2020;75(6):1198-205. DOI: 10.1093/gerona/glaa007

25. Moon S, Chung HS, Kim YJ, Kim SJ, Kwon O, Lee YG, et al. The impact of urinary incontinence on falls: a systematic review and meta-analysis. PLoS One [internet]. 2021;16(5):e0251711. DOI: 10.1371/journal.pone.0251711

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