

Possible fall agents in elderly with mental disorders

RESUMO | Objetivo: identificar os possíveis agentes causadores de quedas de idosos com transtornos mentais. Método: revisão integrativa realizada na plataforma BVS, utilizando-se as bases de dados LILACS, MEDLINE e BDEF com os descritores "Instituição de longa permanência para idosos" AND "Saúde mental" AND "Acidentes por quedas". Foram selecionados 06 artigos em português, inglês e espanhol publicados nos últimos dez anos (2011 a 2021). Resultados: foi verificada a incidência de fatores intrínsecos e extrínsecos que contribuíram para a queda em idosos, além das fragilidades físicas apresentadas por eles nesta fase, estes fatores contribuíram para que acidentes em instituições de longa permanência fossem causas mais comuns entre eles. Conclusão: considera-se a necessidade de adoção de medidas individuais e coletivas, com destaque para ações educativas, adaptações ambientais, aumento da flexibilidade muscular e melhora do equilíbrio e marcha, acompanhamento sistemático do uso de medicamentos e de sinais e sintomas que possam representar riscos para quedas.

Descritores: Instituição de longa permanência para idosos; Saúde mental; Acidentes por quedas.

ABSTRACT | Objective: identify the possible causative agents of falls in elderly people with mental disorders. Method: integrative review carried out on the BVS platform, using the LILACS, MEDLINE and BDEF databases with the descriptors "Long stay institution for the elderly" AND "Mental health" AND "Accidents due to falls". 06 articles in Portuguese, English and Spanish published in the last ten years (2011 to 2021) were selected. Results: the incidence of intrinsic and extrinsic factors that contributed to falls in the elderly was verified, in addition to the physical weaknesses presented by them at this stage, these factors contributed to accidents in long-stay institutions being the most common causes among them. Conclusion: the need to adopt individual and collective measures is considered, with emphasis on educational actions, environmental adaptations, increased muscle flexibility and improved balance and gait, systematic monitoring of medication use and signs and symptoms that may pose risks for falls.

Keywords: Homes for the Aged; Mental Health; Accidental Falls.

RESUMEN | Objetivo: identificar los posibles agentes causantes de caídas en personas mayores con trastornos mentales. Método: revisión integradora realizada en la plataforma BVS, utilizando las bases de datos LILACS, MEDLINE y BDEF con los descriptores "Institución de larga estancia para ancianos" Y "Salud mental" Y "Accidentes por caídas". Se seleccionaron seis artículos en portugués, inglés y español publicados en los últimos diez años (2011 a 2021). Resultados: Se verificó la incidencia de factores intrínsecos y extrínsecos que contribuyeron a las caídas en los ancianos, además de las debilidades físicas que presentan en esta etapa, estos factores contribuyeron a que los accidentes en las instituciones de larga estancia sean las causas más comunes entre ellos. Conclusión: Se considera la necesidad de adoptar medidas individuales y colectivas, con énfasis en acciones educativas, adaptaciones ambientales, aumento de la flexibilidad muscular y mejora del equilibrio y la marcha, seguimiento sistemático del uso de medicamentos y signos y síntomas que pueden presentar riesgo de caídas.

Palabras claves: : Hogares para Ancianos; Salud Mental; Accidentes por Caídas.

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INTRODUCTION

It is known that Brazil has been experiencing a decline in the fertility rate and an increase in life expectancy, and these phenomena reflect the aging trend of the Brazilian population. (1) According to the status of the elderly, the elderly is a person aged over 60 (sixty) years old. (2) According to data from the Brazilian Institute of Geography and Statistics (IBGE), it is estimated that the elderly population in the State of Rio Grande do Sul is 1,459,597 being 627,470 men and 832,127 women, in Brazil it is estimated a population of 20,590,597 elderly.(3)

Aware of this national reality, it is

believed that in the short future there will be an increase in the number of elderly people in Brazil compared to the past decade, which requires greater care from health professionals, especially nursing. (4)

When talking about the elderly, it does not refer to a group that can be compared with the other stages of human development - as it deserves special attention - considering that they are more vulnerable to chronic or acute diseases, domestic accidents and emotional stress. (5)

Studies have revealed that about 40% of individuals aged 65 years and over need some kind of help to carry

out at least one instrumental activity of daily living, such as shopping, taking care of finances, preparing meals or cleaning the house, and 10% require help with basic tasks such as bathing, dressing, going to the toilet, eating and even sitting and/or getting up and moving from bed to chair and back to bed. (6)

The fall is called a common event for most elderly people and that the use of an instrument to help them is necessary. We can define a fall as an unintentional displacement of the body to a level below the initial position, with an inability to correct it in a timely manner, determined by multifactorial circumstances that compromise stability. (7)

Statistics reveal that 30% of elderly people suffer falls at least once a year, accounting for 70% of deaths in people over 75 years, of these falls 60% are at home, 25% with domestic hazards, such as floors, little lighting among others. (8)

The theme "falls" in the elderly has been widely discussed in the world literature, with studies focused on the culture of patient safety in long-term care facilities. (1)

With regard to psychiatric inpatient units aimed at caring for the elderly with mental disorders, the risk of falls becomes a concern, as factors such as: use of psychiatric medications, senility, diagnosis of cognitive impairment are configured as predisposing risks the occurrence of falls. (9)

In a study carried out in psychiatric inpatient units in Australia in relation to falls in elderly people with mental disorders, the indicated rate was 3.19 falls per 1,000 patients/day. In relation to other non-psychiatric units, the rate was 1.25 falls per 1,000 patients/day. (10)

In this sense, it is relevant to conduct research aimed at identifying possible causative agents of falls in elderly people with mental disorders, since

this clientele, in addition to presenting factors such as: advanced age, cognitive and functional declines and the use of psychiatric medications, can it



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is thus, through this research, to know and adapt preventive measures to falls in the care of the elderly with mental suffering in long-stay institutions.

The theme "falls" is a major challenge for nursing professionals involved in the process of caring for this population. It is known that Nursing works directly in the care of the elderly, requiring investments in health education for these professionals, in addition to investments in infrastructure in long-term care institutions as factors to prevent falls.

For this, this study sought to answer the following research question: What are the possible causes of falls in elderly people with mental disorders? Thus, this study aims to identify the possible causative agents of falls in elderly people with mental disorders.

METHOD

This is an integrative review (IR) study that includes the analysis of various primary research on a given subject, in order to define broader conclusions about a specific phenomenon, based on Cooper's assumptions (11) which systematizes IR into five steps, which are: problem formulation; data collect; data evaluation; analysis and interpretation of data and presentation of results.

To carry out this integrative review, articles in Portuguese, English and Spanish published in the last ten years (2011-2021) were analyzed. Data collection performed on the VHL platform for articles published in national and international journals, using the LILACS, MEDLINE and BDNF databases with the descriptors Long-stay institution for the elderly; Mental health; Accidents caused by falls.

The study had as inclusion criteria national and international articles in nursing and other areas. Original articles from qualitative and quantitative research that addressed the research topic were selected; full articles that contain abstracts indexed in the databases.

As exclusion criteria, articles that

required payment of fees, duplicate studies and technical reports were excluded.

The investigation took place through the crossing of Descriptors in Health Sciences (DECS), with the Boolean operator “and”: “ Long stay institution for the elderly (Instituição de longa permanência para idosos)” AND “Mental Health (Saúde Mental)” AND “Accidents caused by falls (Acidentes por quedas)”. The following flowchart shows the drilldown (Figure 1).

To evaluate the data, 37 articles were initially included by reading the established titles and terms. Of these, 09 articles were excluded because they were duplicates. After reading the titles and abstracts, 13 articles were selected to be read in full. With the critical reading of the texts, 06 were selected to be used in this integrative review.

In order to register the data collected from the articles, a Form for Evaluation of Studies was prepared, filled in after reading the articles, thus enabling the analysis of the information found.

For analysis and interpretation of the results, in order to synthesize and compare the data recorded in the instruments, a general synoptic table was created to record the elements that answer the guiding question.

To validate the research, a search for articles in the databases was performed by two individual researchers using the same strategy of crossing descriptors.

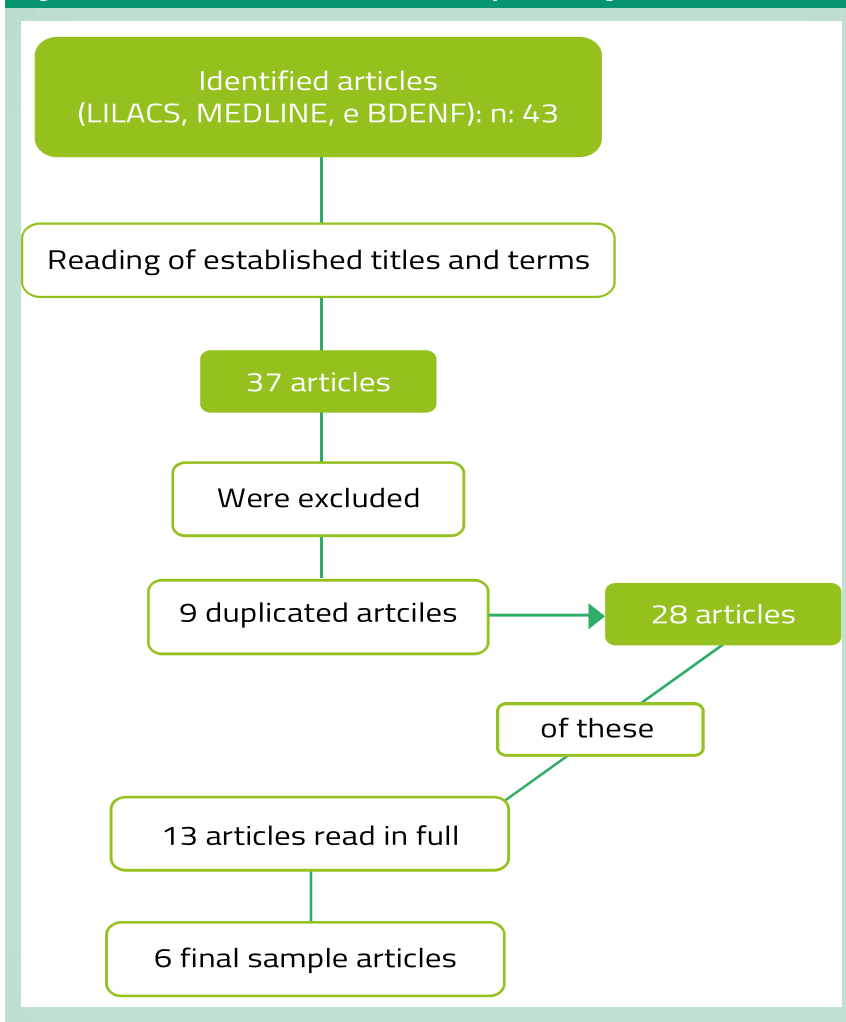
RESULTS

06 articles were included in this review n=43 (Chart 1):

DISCUSSION

In this study, the incidence of intrinsic and extrinsic factors that contributed to falls in the elderly was verified, in addition to the physical weaknesses presented by them in this phase. (8-17)

Figure 1 - Detailed search flowchart of the study, Porto Alegre, RS, Brazil, 2021.



Source: The author, 2021.

Of the 37 articles analyzed, some intrinsic factors (related to the individual) were found, associated with falls in the elderly that are more common, namely: Presence of diseases (frequency in 9 articles, with a percentage of

Table 1 – Description of selected articles in LILACS, MEDLINE and BDNF databases as a study sample, Porto Alegre, RS, Brazil, 2021.

no. of the article	Title	Authors	Method	Year of publication
01	Factors that predispose to falls in elderly people living in the western region of Santa Maria, RS	Piovesan et al.(12)	Qualitative of the Descriptive type	2011
02	Epidemiological characteristics and factors influencing falls among elderly adults in long-term care facilities in Xiamen, China.	Zhang et al.(13)	Qualitative of the Cross-sectional Study type	2019

50%), Motor difficulty Lower limbs (frequency in 8 articles, with a percentage of 44.44%), Auxiliary devices for walking (frequency in 7 articles, with a percentage of 38.9%), Visual deficit (frequency in 7 articles, with a percentage of 38.9%) , Hearing deficit (frequency in 5 articles, with a percentage of 27.8%); Use of medications (frequency in 7 articles, with a percentage of 38.9%), Suspicion of pressure (frequency in 1 article, with a percentage of 1.6%), Lack of balance (frequency in 3 articles, with a percentage of 16.7%), Difficulty reaching above (frequency in 2 articles, with percentage of 11.1%), Step height (frequency in 4 articles, with percentage of 22.2%), Abnormal stride continuity (frequency in 4 articles, with percentage of 22.2%), Lack of balance (frequency in 4 articles, with a percentage of 22.2%), sedentary lifestyle (frequency in 3 articles, with a percentage of 16.7%), Hypertensive (frequency in 9 articles, with a percentage of 50%), weight (frequency in 5 articles, with a percentage of 27.8%) and history of falls (frequency in 18 articles, with a percentage of 100%).

Regarding extrinsic factors (problems that are related to the environment), found in articles that allow an increase in falls among the elderly are: Floor (frequency in 7 articles, with a percentage of 38.9%), Stairs/steps (frequency in 6 articles, with a percentage of 33.3%), Debris (frequency in 3 articles, with a percentage of 16.7%), Lighting (frequency in 6 articles, with a percentage of 33.3%), Furniture (frequency in 5 articles , with a percentage of 27.8%), Carpets (frequency in 5 articles, with a percentage of 27.8%), Glasses (frequency in 5 articles, with percentage of 27.8%), Footwear (frequency in 4 articles, with percentage of 22.2%) and absence of handrail (frequency in 3 articles, with percentage of 16.7%).

Occurrence of falls in elderly people residing in long-term care facilities

03	Falls in institutionalized elderly with and without cognitive decline A study of some factors	Baixinho et al.(8)	Quantitative of the Correlational Study type	2019
04	Predicting falls from behavioral and psychological symptoms of dementia in older people residing in facilities.	Sato et al.(14)	Cohort Study-type quantitative	2018
05	Feasibility and efficacy of a multi-factorial intervention to prevent falls in older adults with cognitive impairment living in residential care (ProF-Cog). A feasibility and pilot cluster randomised controlled trial.	Whitney et al.(15)	Quantitative Randomized Clinical Trial Type	2017
06	Medication Use, Falls, and Fall-Related Worry in Older Adults in the United States.	Watanabe(16)	Qualitative of the Cross-sectional Study type	2016

Source: The author, 2021.

Table 1 - Risk factors that influenced falls in the elderly

Intrinsic Factors	F	f	Extrinsic Factors	F	f	Age
Presence of diseases	9	50,00	Floor	7	38,9	60 until 90
Lower limb motor difficulty	8	44,44	Ladder / steps	6	33,3	
Auxiliary Devices for Gait	7	38,9	Debris	3	16,7	
Visual Deficit	7	38,9	Lighting	6	33,3	
Hearing Deficit	5	27,8			27,8	
Use of medications	7	38,9	Furniture	5	27,8	
Suspicion of pressure	1	5,6	Carpets	5	27,8	
Lack of balance	3	16,7	Glasses	5	27,8	
Difficulty to reach above	2	11,1	Shoes	4	22,2	
Step height	4	22,2	Absence of Handrail	3	16,7	
Abnormal stride continuity	4	22,2				
Lack of balance	4	22,2				
Sedentary lifestyle	3	16,7				
Continuation						
Intrinsic factors	F	f	Extrinsic Factors	F	f	Age
Hypertensive	9	50,0				
Weight	5	27,8				
Fall antecedent	18	100				

Source: The author, 2021.

dedicated to the care of individuals with mental disorders, 60 - 69 years

old have more falls (37.8%) than 70-79 years old (34.5%) and older than 80 ye-

ars or older (30%); elderly people with rheumatism and spine disease have a greater number of falls; use of psychotropic drugs had 40% of falls and elderly people without the use of this medication had 21.4% of falls; change in decubitus considered an important factor in falls: slipping (23.6%), dizziness (22.2%), imbalance (16.7%).

Table 1 shows the main risk factors for falls among elderly people with mental disorders.

In the table above, it is possible to see the main risk factors for falls in elderly people with mental disorders, they are intrinsic and extrinsic factors, with the age range corresponding to 60 years old to elderly people over 90 years old.

CONCLUSION

With this IR, in this context of falls in elderly people with mental disorders, it is considered the need to adopt individual and collective measures, with emphasis on educational actions, environmental adaptations, encouragement of physical exercise, aimed at strengthening the muscles, increasing muscle flexibility and improving balance and gait, systematic monitoring of medication use and signs and symptoms that may pose risks for falls.

In view of this reality and the data, a great challenge is placed for the nursing professionals involved in the process of caring for this population, whether related to direct care, research, or teaching.

It is known that Nursing works directly in the care of elderly people with mental disorders, requiring investments in terms of health education for these professionals, as well as investments in infrastructure in long-term care institutions as factors to prevent falls.

It is important that the culture of patient safety is evidenced in long-stay institutions, with a focus on continuing education for nursing professionals, in addition to environmental adaptations and nursing care aimed at patients with mental disorders and their needs.

However, with the possibility of coping with the situation, it is possible to glimpse a new context of health care, whose emphasis is on providing tools and valuing health professionals.

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