RIASE
REVISTA IBERO-AMERICANA DE SAÚDE E ENVELHECIMENTO
REVISTA IBERO-AMERICANA DE SALUD Y ENVEJECIMIENTO

THE ELDERLY AND FALLS: INTERVENING TO PREVENT

OS IDOSOS E AS QUEDAS: INTERVIR PARA PREVENIR

LAS PERSONAS MAYORES Y LAS CAÍDAS: INTERVENIR PARA PREVENIR

Maria Augusta Espada – Eborae Family Health Unit – Agrupamento de Centros de Saúde do Alentejo Central, Évora, Portugal.
ORCID: https://orcid.org/0000-0002-8276-3743

Sílvia Noruegas – Care Unit in the Community of Estremoz – Agrupamento de Centros de Saúde do Alentejo Central, Estremoz, Portugal.
ORCID: https://orcid.org/0000-0002-9585-0336

Helena Reis do Arco – School of Health, Polytechnic Institute of Portalegre, Comprehensive Health Research Centre (CHRC), Portalegre Portugal, Portugal.
ORCID: https://orcid.org/0000-0001-7455-1081

Corresponding Author/Autor Correspondente:
Maria Augusta Espada – Eborae Family Health Unit, Évora, Portugal. augustaespada@sapo.pt

Received/Recebido: 2022-09-18 Accepted/Aceite: 2022-12-15 Published/Publicado: 2022-12-15

DOI: http://dx.doi.org/10.24902/r.riase.2022.8(3).568.313-327

©Authors retain the copyright of their articles, granting RIASE 2022 the right of first publication under the CC BY-NC license, and authorizing reuse by third parties in accordance with the terms of this license.
©Os autores retêm o copyright sobre seus artigos, concedendo à RIASE 2022 o direito de primeira publicação sob a licença CC BY-NC, e autorizando reuso por terceiros conforme os termos dessa licença.

VOL. 8 NO. 3 DECEMBER 2022

ABSTRACT

Introduction: Population ageing is a reality of our society, but quality of life, level of dependence and autonomy are a challenge for our elderly, caregivers, and health teams. Falls can occur at any age, but are more frequent in the elderly, constituting a serious public health problem due to the resulting comorbidities and the fact that they can lead to death.

Objective: To assess the effect of fall prevention in users aged over 65 years followed-up by an Integrated Continuous Care Team (ECCI) of the Health Care Centre Grouping of Alentejo Central (Agrupamento de Centros de Saúde do Alentejo Central – ACES AC).

Methodology: A quasi-experimental pre-test/post-test study with a quantitative approach. 17 patients monitored in ECCI were included. Assessment instrument: Morse Scale (application of the National Network for Integrated Continuous Care (RNCCI)), applied to patients to determine their risk of falling. Intervention carried out following the priorities identified on the basis of the diagnosis made. Statistical treatment using the software IBM SPSS Statistics Version 24.

Results: After identifying medium and high risk of falling in more than 80% of the elderly, we found that 23.5% of the elderly already had a history of falling, followed by educational interventions and dissemination of the project.

Conclusion: The intervention of the community team with the elderly at home is essential to reduce the number of falls. Conducting the assessment and determining the risk factors allows professionals to define strategies to reduce falls and their consequences.

Keywords: Community Nursing; Elderly; Falls; Prevention.

RESUMO

Introdução: O envelhecimento da população é uma realidade da nossa sociedade, mas a qualidade de vida, o nível de dependência e a autonomia são um desafio para os nossos idosos, cuidadores e equipas de saúde. A queda pode ocorrer em qualquer idade, contudo é mais frequente nos idosos, constituindo um grave problema de saúde pública, pelas comorbilidades resultantes e por poder levar à morte.

Objetivo: Avaliar o efeito da prevenção de quedas em utentes com mais de 65 anos acompanhados por uma Equipa de Cuidados Continuados Integrados (ECCI) do Agrupamento de Centros de Saúde do Alentejo Central (ACES AC).

Metodologia: Estudo quasi-experimental do tipo pré-teste/pós-teste com abordagem quan-

titativa. Selecionaram-se 17 utentes acompanhados em ECCI. Instrumento de avaliação: Escala de Morse (aplicativo da Rede Nacional de Cuidados Continuados Integrados (RNCCI)), aplicada aos utentes, para determinação do risco de queda. Intervenção realizada na sequência das prioridades identificadas com base no diagnóstico efetuado. Tratamento estatístico através do *Software* IBM SPSS *Statistics* Versão 24.

Resultados: Identificado médio e alto risco de queda em mais de 80% dos idosos, verificámos que 23,5% dos idosos já tinham antecedentes de queda, seguiram-se intervenções educativas e divulgação do projeto.

Conclusão: A intervenção da equipa comunitária junto dos idosos no seu domicílio, é fundamental para a diminuição do número de quedas. Realizando a avaliação e determinando os fatores de risco, permite aos profissionais, definir estratégias que reduzam as quedas, e suas consequências.

Palavras-chave: Enfermagem Comunitária; Idosos; Prevenção; Quedas.

RESUMEN

Introducción: El envejecimiento de la población es una realidad de nuestra sociedad, pero la calidad de vida, el nivel de dependencia y la autonomía son un reto para nuestros mayores, los cuidadores y los equipos sanitarios. Las caídas pueden ocurrir a cualquier edad, pero son más frecuentes en las personas mayores, constituyendo un grave problema de salud pública debido a las comorbilidades resultantes y al hecho de que pueden provocar la muerte.

Objetivo: Evaluar el efecto de la prevención de caídas en usuarios mayores de 65 años seguidos por un Equipo de Atención Continuada Integrada (ECCI) de la Agrupación de Centros de Salud del Alentejo Central (Agrupamento de Centros de Saúde do Alentejo Central – ACES AC).

Metodología: Un estudio cuasi-experimental pre-test/post-test con un enfoque cuantitativo. Inclusos 17 pacientes controlados en ECCI. Instrumento de evaluación: Escala de Morse (aplicación de la Red Nacional de Cuidados Continuos Integrados (RNCCI)), aplicada a los pacientes para determinar su riesgo de caída. Intervención llevada a cabo siguiendo las prioridades identificadas en base al diagnóstico realizado. Tratamiento estadístico mediante el programa informático IBM SPSS *Statistics* versión 24.

Resultados: Se identificó un riesgo medio y alto de quedarse en más del 80% de los individuos, y se verificó que el 23,5% de los individuos ya tenían antecedentes de quedarse, tras las intervenciones educativas y la divulgación del proyecto.

Conclusión: La intervención del equipo comunitario con los ancianos en el hogar es esen-

cial para reducir el número de caídas. La realización de la evaluación y la determinación de los factores de riesgo permite a los profesionales definir estrategias para reducir las caídas y sus consecuencias.

Descriptores: Ancianos; Caídas; Enfermería Comunitaria; Prevención.

INTRODUCTION

Population aging is a reality in every country in the world; Portugal is not exception, its growth is implying transformations in society. Our country is getting old, which entails several problems at a social and economic level, among the various emerging problems, there is the difficulty of families in supporting their elderly people[1].

Being a natural process, aging with quality of life becomes a challenge for everyone, elderly people, caregivers and health teams.

When we cross falls and the aging process, we verify the existence of a high morbidity and mortality. They are a health problem in all regions of the world and have serious consequences for the elderly people, becoming a serious public health problem[2].

The National Program for the Prevention of Accidents 2010-2016 reveals the importance of intervening with the most vulnerable population such as the elderly population, through community actions to promote safety and to prevent accidents, especially in risky environments and in changing attitudes and behaviors, seeking to reduce accidents[3].

The Domestic and Leisure Accidents Report (DLA) – in the Epidemiology and Surveillance of Trauma and Accidents (EVITA) system in the 2009-2012 Report, states that in Portugal the injury mechanism that most contributes to the number of DLAs are falls, with 68.7%, being a significantly high percentage in the elderly, which increases with advancing age, reaching 22.3% in females and 9.1% in males[4]. More recently, in 2019, the EVITA program mentions the drop in the age group over 65 with a percentage of 88%, in relation to other accidents such as burns, cuts or others. It was also found that almost 50% of falls occur at home, being more frequent in females. The same source mentions that in 2019, 112,988 Portuguese suffered a fall at home and with the need to resort to the emergency service[5].

The significant number of falls in the elderly population, and their consequences, has worried health professionals. Community health and public health nurses are aware of the need to define strategies for its reduction. In this way, preventing falls in older people will be fundamental, so that they live independently for longer and with quality of life.

This study aims to evaluate the effect of preventing falls in users over 65 accompanied by an Integrated Continuing Care Team (ICCT) of the Alentejo Central Health Center Grouping (ACHCC).

METHODOLOGY

Pre-test/post-test quasi-experimental study with a quantitative approach carried out in a Community Care Unit (CCU) of ACHCC. The target population was formed by users over 65 years-old monitored by the ICCT, including 17 users monitored by the team, who agreed to participate in the study.

Authorization was previously requested for the application of the study to the Regional Coordinator of the NNICC, to the Coordinator of the Functional Unit where the study is carried out, and to the Executive Director of the Grouping of Health Centers. Subsequently, it was obtained a favorable opinion from the Ethics Committee of the Alentejo Regional Health Administration and also from the Ethics Committee of the University of Évora.

Based on the age group and the theoretical basis, it was decided to use the Morse Scale as a data collection instrument. This scale has six questions, allowing the assessment of the risk of falling, the first question assessing the history, the second the existence of secondary diagnoses, the third the support used in walking, the fourth assessing the need for intravenous medication or heparin , the fifth question assesses the user's gait, the last allows knowing the user's awareness of their limitations.

The application of the referred scale was carried out in a first phase (Diagnosis) by the "connection link" to the study during the clinical visit, after explaining the importance of participating in the same and given the opportunity to make an informed, free and clear decision, being then delivered to the researcher, thus allowing to identify the level of risk of falling, and consequently the main problems and needs of the population under study.

After this stage and based on the health planning methodology, a Focus Group was held to determine priorities, in which it was possible to count on the participation of the multidisciplinary team, which was a fundamental contribution to the development of the project.

The Focus Group was prepared in an organized manner, with careful planning. Initially, the team was presented with the diagnosis made to users monitored in ICCT, where it was possible to determine the level of risk of falling. Following this, questions were presented to the team: what is the team's perception of the importance of this project, to identify which risk factors were witnessed by the team at the user's home with intervention priority and to identify which strategies to develop to minimize risk factors of falls of users monitored in ICCT.

At the end of the Focus Group, the team's professionals considered the project very positive and after the content analysis, categories and subcategories emerged that led to the following decisions:

- Standardization of procedures through the development of a standard for assessing the level of risk of falls;
- Assessment of risk factors by completing a checklist;
- Promoting individualized education sessions informing the user/family about fall risk factors;
- Disclosure through the local media, making known the various fall risk factors.

Thus, strategies were defined that enabled the implementation of interventions, in order to respond to the defined objectives.

After about three months, the Morse Scale was again applied to the users and the collected data were analyzed using the SPSS Statistics software, version 24.0.

RESULTS

Of the 17 users who agreed to participate, 9 are female and 8 are male. The age was between 65 and 91 years-old, with an average of 79.71.

We found that all users had more than one diagnosis in their clinical process, identifying the presence of several comorbidities in this age group.

With regard to gender and the need for support when walking, we found that 4 male users and 3 female users needed a walking aid (crutches, cane, walker), while 2 male and 1 female users moved in a wheelchair. Only 2 male users were bedridden and 5 women walked without assistance.

When assessing gender and the risk of falling using the Morse Scale, we observed that 7 female users had a medium risk of falling and 1 user had a high risk, while 2 male users had a high risk of falling and 4 had a medium risk of falling. It was found in this case that women had a higher risk of falling.

It was found that the highest risk level was between 76 and 85 years-old, with 9 medium risk users and 2 high risk users, concluding that the risk of falling increases with advancing age.

Analyzing the need for support when walking, 7 users need support (crutches, cane or walker). By crossing this variable with the risk of falling, we found that of the users who used a walking aid, 3 had a high risk of falling and 4 a medium risk. Of the remaining 10 users who did not use a walking aid, 3 had a low risk of falling, 2 were bedridden and 1 was in a wheelchair. The remaining 7 users who have a medium risk of falling, 5 walk without help and 2 users move in a wheelchair. In this way, we verified that users who used walking aids present a medium to high risk of falling, thus considering intervention in the scope of fall prevention to be important, in order to seek to reduce this risk, sometimes associated with inappropriate use of walking aids.

With regard to the users' gait, also assessed on the Morse Scale, it was found that 3 users had a gait deficit and 2 easily unbalanced. The remaining 12 users used a wheelchair, were bedridden or walked without assistance.

Regarding the question about the use of intravenous infusion and/or heparin, all users in our sample answered that they did not use any intravenous medication or heparin.

The last question on the Morse Scale assesses the level of awareness of users regarding their limitations; we can say that 12 users were aware of their limitations; however 5 did not manifest awareness of them. Crossing this variable with the need for support when walking, it was observed that 6 users were aware of their limitations and did not need support for walking, they were bedridden or in a wheelchair, 6 users needed walking aids. Of the users who are not aware of their limitations, 1 user was bedridden, 3 users walked in a wheelchair and 1 with a walking aid.

It was possible to analyze the intersection between the antecedents of falls and the level of risk, observing that of the users with a high risk of falling, 3 had suffered at least one fall in the last three months and of the users with medium risk of falling, 1 had suffered drop in the last 3 months. Once again, the need to intervene in users with medium and high risk, seeking to prevent future falls, became evident.

Evaluating the risk of falling as a whole, we found that 17.6% of users have a low risk of falling, 64.7% medium risk and 17.6% high risk, we can refer that 82.3% of users who participated in this project had between medium and high risk of falling, justifying the development of interventions in the field of preventing falls in the elderly people.

After about three months, the Morse Scale was again applied to users monitored by the ICCT, in order to carry out a follow-up assessment of the effectiveness of the preventive strategies developed over this period. We also tried to understand the evolution of the users' fall risk level compared to the initial risk level. The Morse scale was applied in the end to only 16 users, due to the death of a user during the development of our project. In Table 1↗, we present both results.

When analyzing the results, it was found that the level of risk of falling decreased and the antecedents of falls reduced to less than half. In this way, we think we can say that the interventions carried out achieved the defined objective, to prevent falls in elderly people monitored in ICCT.

DISCUSSION

Population aging is about to become one of the most significant social transformations of the 21st century, with transversal implications for all sectors of society[6].

Currently, life expectancy has increased, and society is experiencing constant aging, forcing new challenges in an attempt to increase the quality of life of the elderly population.

It is estimated that the world's population aged over 60 years-old will increase from 700 million to 1200 million between 2000 and 2025[7].

The need for care increases as we age and so does the use of health services, therefore, the need for intervention in the health of populations, carried out as early as possible, is urgent, with the objective of a more active, successful and healthy ageing with greater autonomy.

We cannot fail to observe that the older population is more susceptible to accidents, which must be prevented in order to promote a better quality of life.

The fall, defined as "an unintentional displacement, due to the loss of postural balance, which results in the change of position of the individual to a lower level in relation to the initial position, excluding intentional changes of position of rest on furniture, walls or other objects"[8], in the elderly population they are a worrying factor worldwide and, consequently, also in our country, being of great importance their prevention, through risk assessment and definition of prevention strategies to avoid them, and minimize its consequences.

The 17 users monitored at an ICCT in the Alentejo, who were part of our study, revealed results that are in line with what was observed in a study carried out previously[9]. Being 9 female and 8 male with a mean age of 79.71 years old, what is often referred to as an increase in life expectancy among females has been verified. Regarding the age group in this study, and in a previously developed study, it found a lower representation between 65 and 69 years-old, increasing between 70-79 years-old with 20.7% and between 80-89 years-old the value is 49.1%, decreasing the values above 90 years-old to 24.5%, as happened in our study, in which only 1 elderly person was monitored by the team over 90, with the age group between 80-89 being the predominant one with 9 users, evidencing the aging of the population and its obvious need for care[9].

Our seniors had walking difficulties resulting from changes in functionality resulting from pathologies and natural aging, requiring support. In our study, we found that 3 female users and 4 male users walk around with the support of walking aids (crutches, cane, walker), among the 23 elderly people who constituted the sample, 14 needed walking aids[10]. Of the remaining elderly people in our sample, only 5 reported walking without support, 3 users use a wheelchair and 2 are bedridden. The elderly people, despite living a longer life, often have limitations in terms of their mobility, as we saw in the users who were part of our project, in line with what was found in the study carried out with 75 users, where 69.33% also need help gait, with more than half of the selected sample[11].

Regarding gender and risk of falling, it was observed that the risk of falling was more pronounced in females, with 47% presenting medium risk of falling, contrary to males with only 35%, the same was verified in another study, which he refers to as a hypothesis of the increased risk of falls in females, the greater longevity of women and the hormonal changes resulting from menopause, which leads to an increase in osteoporosis[11].

Once again age was associated with a greater risk of falling, noting that in the age group between 76 and 90 years-old all users have a medium to high risk of falling. We emphasize, however, the existence of results with higher percentages of falls in the elderly, pointing to 32-42% in elderly population aged 70 years-old, and in elderly aged 80 years-old or more it can reach 50%, thus realizing that the fall it is more frequent with advancing age[7].

We found that all users in our sample had more than one diagnosis identified in the clinical process, in line with previous studies that refer to a high number of diagnoses, such as in the sample consisting of 53 people, where 67.9% have secondary diagnoses and only 32.1% have only one pathology, another study with a sample consisting of 557 elderly people, where 92.1% reported having two or more morbidities[9,12]. The vast majority have identified several pathologies and take several medications that may also increase the risk of falling[10].

Most of the users we followed (12) are aware of their limitations, but despite being aware, there were 4 users who fell in the last three months. Falls are the result of several factors that can be intrinsic, depending on the individual condition, or extrinsic, depending on the environment and surroundings in which the elderly person moves. The investigation carried out alludes to the most common causes of falls, visual impairment and extrinsic factors, with the home visit being very important to identify the predominant risk factors in the residence[13].

The Morse Scale also evaluates the administration of intravenous medication, in our sample no user was in need; however there are studies in which 15.1% of the sample was using intravenous medication or with heparin[9,11]. Taking medication is referred to as a risk factor for falls in the elderly people, and polypharmacy is often associated with episodes of falls. The aging process is associated with the taking of various medications, and it is reported that the absorption, metabolism and elimination of medications can lead to the occurrence of falls[11].

The application of the Morse scale allowed us to identify the level of risk of falling, having found that 82.3% of users were susceptible to the occurrence of falls. 53 elderly people presented a fall risk value of 86.8%, thus finding this value very close to ours[9].

The risk of falling should be assessed in the entire elderly population, observing their home and their conditions, it will be easier to identify risk factors and develop interventions with the elderly population and their family in order to contribute to the control of risk factors[13].

Nurses are fundamental in the process of training the elderly people and their caregivers in preventing falls and, through nursing interventions, promote the stability and well-being of the elderly people[14]. Also in this project presented here, in conjunction with the ICCT multidisciplinary team, strategies were defined and interventions were carried out aimed at reducing the risk of falling. A risk assessment standard was drawn up and activities were carried out in the field of health education, with individual sessions being carried out making known the risk factors and how to prevent falls. The sessions were held at home, which allowed the application of a checklist of risk factors, seeking to more easily identify those to which the user was exposed on a daily basis.

The viewing of the video "One minute + health + life – Fall prevention" also allowed the user to identify the different risks and consolidate knowledge. A Fall Prevention Manual was also prepared and delivered to the elderly and their families.

In order to cover a larger number of elderly people and this project is not limited only to those who took part in the initial study, dissemination was carried out through the Media, namely through the elaboration of an article for the regional newspaper and the recording of a spot for the local radio, with the aim of raising awareness of risk factors and making some recommendations on how to avoid falling.

With the collaboration of the Senior University, a health education session was also organized with the theme "Safety at home" which was attended by the elderly who attend health classes at the institution, the objective of which was to reduce the occurrence of falls and allowing aging with a better quality of life and avoiding comorbidities.

Based on the results of this project and on the aforementioned studies, we emphasize the need to continue to invest in a fall prevention policy. Health professionals have the competence to respond to the challenges of aging; however, it is necessary to mobilize resources that allow the provision of quality care and close monitoring of our elderly population[15].

CONCLUSION

Taking into account the aging of the population and the need to prevent falls in the elderly population, seeking to promote the continuity of independence and maintaining their autonomy, a more preventive attitude on the part of health professionals becomes relevant. Falls in the elderly are currently a serious public health problem, and therefore studies and interventions are necessary in this regard.

The elaboration of this study made it possible to assess the level of risk of falling among users over 65 years of age, accompanied by an ICCT at ACHCC. Within the scope of the diagnosis carried out, it was verified using the Morse Scale and observation in field work that:

- The risk of falling is more significant in females;
- Advancing age increases the risk of falling;
- The existence of previous falls increases the risk;
- The need for walking aids (crutches, cane, walker) raises the risk to medium and high risk of falling;
- 23.5% of users suffered at least one fall in the last three months;
- 64.7% of users have a medium risk of falling;
- 17.6% of users have a high risk of falling.

It was also found that the majority of elderly people had difficulty walking, the Morse Scale used as an assessment tool showed us some limitations for our diagnosis, such as the difficulty in determining how the user walks, encompassing in the same item and with the same level of evaluation bedridden users, in a wheelchair or supported, this fact constituting a limitation. The information obtained through the application of this scale was considered important, but there was a need to collect information based on the work carried out in the field, so that we could carry out a more complete diagnosis.

Despite the limitations of the diagnosis resulting from the application of the scale and the sample not being significant, increased by limitations still related to the pandemic period crossed during the realization of the project (May 2021 to January 2022), it is evident the need to continue to invest in knowledge about the risk of falling, so that intervention strategies can be increasingly expanded with the elderly, family member or caregiver.

The development of activities that allow the promotion of the safety of the elderly, avoiding falls and the resulting morbidities, is essential as a strategy to promote the health and safety of our elderly people. It is therefore considered important to carry out other studies with larger samples and with a data collection instrument that complements the Morse Scale.

The assessment of the risk of falls in the elderly will be fundamental, being a challenge launched to nurses, along with the development of new strategies in the community, but especially when they go to the home of the elderly, where factors that can be controlled and activities are identified that allow the reduction of the incidence of falls, still avoiding the consequences resulting from the same.

The development of future projects in the field of preventing falls in older people was considered a strong bet for healthy aging.

Authors' contributions

ME: Study coordination, study design, collection, storage and analysis of data, review and discussion of results.
SN: Study design, data analysis, review and discussion of results.
HA: Study design, data analysis, review and discussion of results.
All authors read and agreed with the published version of the manuscript.

Ethical Disclosures

Conflicts of Interest: The authors have no conflicts of interest to declare.
Financial Support: This work has not received any contribution, grant or scholarship.
Provenance and Peer Review: Not commissioned; externally peer reviewed.

Responsabilidades Éticas
Conflitos de Interesse: Os autores declararam não possuir conflitos de interesse.
Suporte Financeiro: O presente trabalho não foi suportado por nenhum subsídio ou bolsa.
Proveniência e Revisão por Pares: Não comissionado; revisão externa por pares.

REFERENCES

1. Direção Geral da Saúde. Plano Nacional de Saúde Revisão e Extensão a 2020-2015. Lisboa: MS. 2015. Available from: https//www.sns.gov.pt/wpengine.netdna-ssl.com/files/2015/06/Plano-Nacional-deSaude-Revisao-e-Extensao-a-2020.pdf.

2. Venâncio B, Almeida Á, Filipe M. O impacto económico da prevenção de quedas em idosos: uma análise custo-utilidade à intervenção das Equipas de Cuidados Continuados Integrados. JBES: Brazilian Journal of Health Economics/Jornal Brasileiro de Economia da Saúde. 2019;11(1)34-41. Available from: https://doi.org/10.21115/JBES.v11.n1.p34-41

3. Direção Geral de Saúde. Programa Nacional de Prevenção de Acidentes 2010-2016. Lisboa: MS. 2010. Available from: http://www.arsalentejo.min-saude.pt/utentes/saudepublica/AreasSaude/Documents/Preven%C3%A7%C3%A3o%20de%20Acidentes.pdf

4. Contreiras T, Rodrigues E. EVITA – Epidemiologia e Vigilância dos Traumatismos e Acidentes: Relatório 2009-2012. Instituto Nacional de Saúde Dr. Ricardo Jorge. 2014. Available from: http://www2.insa.pt/sites/INSA/Portugues/ComInf/Noticias/Paginas/EVITARelatorio2009-2012.aspx

5. Instituto Nacional Ricardo Jorge. Programa EVITA – Epidemiologia e Vigilância dos Traumatismos e Acidentes. 2020. Available from: https://www.insa.min-saude.pt/infografico-insa-acidentes-domesticos-e-de-lazer-%E2%94%80-mecanismos-de-lesao/

6. Organização Mundial da Saúde. Relatório Mundial de Envelhecimento e Saúde. OMS. 2015. Available from: https://apps.who.int/iris/bitstream/handle/10665/186468/WHO_FWC_ALC_15.01_por.pdf;jsessionid=D1B13C865A7B04652F34B5E3990070A2?sequence=6

7. Rodrigues RA, Silva AF, Fabricio-Wehbe SC, Diniz MA, Fhon JR. Quedas em idosos domiciliados e sua associação com as atividades da vida diária. Rev Enferm. 2015;23(5):589-95. Available from: http://dx.doi.org/10.12957/reuerj.2015.10406

8. World Health Organization. WHO global report on falls prevention in older age. World Health Organization; 2007. Available from: https://www.who.int/publications/i/item/9789241563536

9. Cabrita MD, José HM. O idoso na equipe de cuidados continuados integrados: programa de enfermagem para prevenção de quedas. Revista de Enfermagem UFPE on line. 2013; 7(1):96-103. Available from: https://doi.org/10.5205/1981-8963-v7i1a10209p96-103-2013

10. Gemito ML, Batinas MD, Mendes FR, Santos SS, Lopes MJ. Prevenção de quedas em idosos domiciliados: promoção do envelhecimento ativo. Revista de pesquisa cuidado é fundamental online. 2014;6(5):131-8. Available from: http://www.redalyc.org/articulo.oa?id=505750772012

11. Pedro L de S, Faria J de O. Desafios da Prevenção de Quedas em Idosos na Atenção Primária à Saúde. Rev. baiana enferm. [Internet]. 2019. 33:C 28192;1-8. Available from: https://doi.org/10.18471/rbe.v33.28192

12. Gaspar AC, Mendes PA, de Souza Azevedo RC, Reiners AA, Segri NJ. Quedas: conhecimentos, atitudes e práticas de idosos. Enfermagem em Foco. 2019;10(2):97-103. Available from: https://doi.org/10.21675/2357-707X.2019.v10.n2.1947

13. Santos JS, Morais CS, Fontes FL, Coelho IA, Costa JK, Avelino JT, et al. Prevenção de quedas em idosos na estratégia saúde da família: prevenir para não cair. Brazilian Journal of Surgery and Clinical Research – BJSCR. 2018; vol.23, n.1:32-38. (Jun-Ago 2018). Available from: https://www.researchgate.net/publication/331558104_Prevencao_de_quedas_em_idosos_na_Estrategia_Saude_da_Familia_prevenir_para_nao_cair

14. Maduro Â, do Carmo Figueiredo M. Intervenções de enfermagem na prevenção de quedas dos idosos: uma scoping review. Revista da UI_IPSantarém – Unidade de Investigação do Instituto Politécnico de Santarém. 2021;9(1):274-290. Available from: https://doi.org/10.25746/ruiips.v9.i1.24849

15. Niza C, Amaral O, Coimbra JA, Brito OM, Esteves MJ, Ferreira RF. Risco de queda no domicílio em idosos inscritos em centros de dia. Millenium – Journal of Education, Technologies, and Health. 2021;(9e):207-16. Available from: https://doi.org/10.29352/mill029e.25495

Table 1 – Comparison of risk level and fall antecedents.

Risk level	Project beggining	End of the Project
Low risk	17.6%	23.5%
Medium risk	64.7%	58.8%
High risk	17.6%	11.8%
History of falls	23.5%	11.7%