South American Publishing

SAP Community and Interculturality in Dialogue. 2025; 5:143
doi: 10.56294/cid2025143

REVIEW

Rehabilitation nursing in promoting health literacy in the elderly and preventing falls

Enfermería de rehabilitación en la promoción de la alfabetización en salud en personas mayores y la prevención de caídas

Maria Leonor Carvalho[1], Marta Carvalho[2], Ricardo Mestre[1], Sandy Severino[1], Luís Sousa[1,3,4]

[1]Atlântica School of Health (ESSATLA), Atlantic University. Oeiras, Portugal.
[2]Centro de Medicina Física e de Reabilitação do Alcoitão. Alcabideche, Portugal.
[3]Comprehensive Health Research Centre (CHRC). Évora, Portugal.
[4]RISE-Health, Porto University. Porto, Portugal.

Cite as
Carvalho ML, Carvalho M, Mestre R, Severino S, Sousa L. Rehabilitation nursing in promoting health literacy in the elderly and preventing falls. SAP Community and Interculturality in Dialogue. 2025; 5:143. https://doi.org/10.56294/cid2025143

Publication History
Submitted: 12-04-2024
Revised: 04-10-2024
Accepted: 07-03-2025
Published: 08-03-2025

Corresponding Author
Maria Leonor Carvalho

ABSTRACT

The aim of this study was to map the available scientific evidence on the intervention of rehabilitation nurse specialists in the promotion of health literacy, with an emphasis on the prevention of falls in the elderly. The literature review suggest a positive relationship between adequate Health Literacy and a lower prevalence of falls, although more studies are needed to consolidate this association. The promotion of Health Literacy in the context of falls prevention can be operationalized in three main areas: identification and assessment of risk factors; mobilization and provision of resources; education, teaching and training. Within the scope of their competencies, rehabilitation nurses play a central role in developing and implementing strategies that promote the empowerment of the elderly, providing tools that facilitate informed decision-making and the adoption of behaviors aimed at preventing falls.

Keywords: Health Literacy; Fall Prevention; Elderly; Rehabilitation Nursing.

RESUMEN

El objetivo de este estudio fue mapear la evidencia científica disponible sobre la intervención de enfermeras especialistas en rehabilitación en la promoción de la alfabetización en salud, con énfasis en la prevención de caídas en ancianos. La revisión de la literatura sugiere una relación positiva entre una adecuada alfabetización en salud y una menor prevalencia de caídas, aunque se necesitan más estudios para consolidar esta asociación. La promoción de la alfabetización en salud en el contexto de la prevención de caídas puede implementarse en tres áreas principales: identificación y evaluación de los factores de riesgo; movilización y provisión de recursos; educación, enseñanza y formación. En el ámbito de sus competencias, las enfermeras de rehabilitación juegan un papel central en el desarrollo e implementación de estrategias que promuevan el empoderamiento de las personas mayores, brindando herramientas que faciliten la toma de decisiones informadas y la adopción de conductas orientadas a la prevención de caídas.

Palabras clave: Alfabetización en Salud; Prevención de Caídas; Ancianos; Enfermería de Rehabilitación.

© 2025; The Authors. This Open access article is distributed under the Creative Commons Attribution 4.0 license (https://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

The continuous growth of the elderly population is an undeniable demographic reality, with significant projections for the coming decades. According to the World Health Organization (WHO),[1] the population aged 60 and over is expected to increase substantially, from 1 billion in 2020 to 2,1 billion in 2050. In Portugal, this phenomenon is equally evident, with the number of elderly people expected to grow from 2,2 million in 2018 to around 3 million in 2080.[2] The ageing index, which compares the elderly population to the young population, is expected to almost double by 2080, from 159 to 300 elderly people for every 100 young people, reflecting a profound demographic transformation.[3,4]

Population ageing, despite representing an achievement of modern society, brings with it challenges related to maintaining health and functionality, health, well-being and quality of life.[5,6] In this context, health literacy (HL) plays a central role and is defined as a set of knowledge and skills acquired through daily activities, social interactions and intergenerational transmissions. Such knowledge and skills are shaped by organizational structures and the availability of resources, which enable people to access, understand, evaluate and apply health information and services, promoting the improvement of individual and collective health.[7]

The high prevalence of falls in the elderly increases the risk of serious injury, disability and mortality and is a global and national problem. The incidence is particularly high in the over-65s, especially among older people, particularly women.[8,9] This data reinforces the urgent need to develop and implement strategies to prevent falls, given the significant impact on functionality, health, well-being and quality of life of the elderly population.[10,11] Preventing falls reduces morbidity and mortality, as well as helping to reduce health costs and improve the quality of life of the elderly, making it a priority for health systems.[9,12,13] However, the effectiveness of these interventions can be significantly compromised or even nullified in populations with low HL, which highlights the need to strengthen HL as an essential component for successful fall prevention in the elderly.[14,5,16] The literature review corroborates the high prevalence of low levels of HL among the elderly population.[17,18,19,20,21] In this context, the promotion of HL in the elderly to prevent falls is an ongoing challenge in which rehabilitation nurse specialists (RNS) play a crucial role, given their competence in this area. The aim of this narrative literature review was to map out the available scientific evidence on the intervention of the RNS as a promoter of HL in the elderly to prevent falls.

METHOD

A narrative literature review with a qualitative approach was adopted to develop this research, in order to provide a broad and interpretative view of the state of the art, allowing a critical analysis of the available evidence on the role of the RNS in promoting HL in the elderly and preventing falls. The stages developed included defining the research topic, conducting the search in the defined scientific sources, selecting and extracting the relevant studies, analyzing and presenting the findings, culminating in the presentation of the conclusions.

This narrative literature review was conducted by consulting scientific articles in the following databases: Scopus, PubMed, SciELO and Google Scholar. In addition, the websites of national scientific associations and government platforms were analyzed. In order to broaden the scope of the research, the bibliographical references of the selected articles were also examined, with the aim of identifying potentially relevant studies not found in the electronic databases.

The search was carried out between 28/11/2024 and 20/02/2025. The inclusion criteria were articles available in full in Portuguese, English and/or Spanish and published between 2020 and 2025. The following words were used as descriptors: “Health Literacy”, “Fall Prevention”, “Elderly”, “Rehabilitation Nursing”. The search strategy combined keywords and Boolean operators AND/OR to cover relevant and comprehensive sources. In total, 78 papers were included that were considered relevant to this review.

DISCUSSION

Promoting active and healthy ageing

As a result of advances in science and technology, there have been significant changes in population structures in recent decades. All over the world, as the years go by, the number of elderly people in the general population is constantly increasing.[22,23,24]

Population ageing is undoubtedly an achievement that reflects economic, social and biomedical progress.[22,24] Promoting active and healthy ageing throughout the life cycle has been presented not only as a response to demographic ageing, but also as a strategy to guarantee longevity with health, quality and dignity, benefiting both individuals and communities.[25,26,27,28]

This phenomenon is not only related to longevity. It involves the maintenance of well-being and also encompasses the promotion of conditions that allow individuals to maintain their functional capacity, health and active participation in social processes.[6,22] Thus, the increase in life expectancy requires constant concern and reassessment in order to ensure that people live not just longer, but better.

Although human ageing is a natural part of the life cycle,[4,29,30,31] it encompasses a series of challenges and adaptations to the set of structural, biological, functional, psychological, social and environmental changes that constitute it. These changes make the elderly more vulnerable and fragile, making them more susceptible to illness, loss of autonomy and dependence.[21,23,29,30,31,32,33,34] It is imperative to minimize the consequences of this process in order to maintain maximum functionality, quality of life and well-being as people age.

Factors associated with falls in aging and fall prevention strategies

According to the WHO[9], a fall is defined as “an event that causes a person to inadvertently fall to the ground, floor or other lower level.” These incidents constitute a substantial risk to the health and well-being of the elderly, and can result in a reduction in their ability to preserve and maintain their maximum functionality and autonomy.

https://doi.org/10.56294/cid2025143

Falls are the second leading cause of death from unintentional injuries worldwide. Every year, an estimated 684,000 people die from falls worldwide, of which more than 80 % occur in low- and middle-income countries. In all regions of the world, mortality rates are highest in adults over 60 years of age.[9] According to data from the Centers for Disease Control and Prevention,[12] millions of people aged 65 and over suffer from falls every year, with a prevalence of more than 25 % among this age group, i.e. more than one in four elderly people experience a fall every year. A systematic review of the literature by Salari et al.[35] reveals that the prevalence of falls in older people is 26,5 % worldwide.

In Portugal, a research study documented 40,842 episodes of falls in people aged 65 and over, of which 31,4 % occurred in people aged 85 and over. The data also reveals that the incidence of falls is significantly higher in women, and that around two thirds of incidents occur at home. Furthermore, it was observed that falls account for more than 70 % of injuries in the elderly population who use emergency services.[8]

These data show that the high prevalence of falls in the elderly population is a reality. In fact, there is an increased risk of falls in the elderly.[13,36,37] Falls represent the main cause of injury in individuals aged 65 and over, and are one of the most prevalent and significant events in terms of morbidity, disability and mortality in this age group.[16,38,39] In fact, studies show that injuries to the elderly caused by falls lead to a loss of functionality, causing disability, hospitalizations, early institutionalization, increased health costs and even death.[12,40,41] The literature shows that people aged 65 and over are more susceptible to fatal outcomes or serious injuries from falls, and this risk increases with age. This increased risk is associated with the physical, sensory and cognitive changes resulting from the ageing process, combined with environments that are not adapted to an ageing population.[9,14,36,37,42] According to the Centers for Disease Control and Prevention,[12] falls in the elderly are common, costly and can be prevented. Focusing on fall prevention can not only save lives, but also improve the quality of life of the elderly and reduce the burden on health systems.

Given the high incidence of falls among the elderly population and their significant impact on functionality and quality of life, it is essential to implement effective preventive strategies. The literature shows that most risk factors (intrinsic and extrinsic) can be modified, which reinforces the importance of personalized and multidimensional interventions. Therefore, the early identification of risk factors, together with the implementation of preventive programs based on scientific evidence, should be a priority in the clinical practice of specialist nurses.[9,14,43,44,45,46,47] However, the effectiveness of implementing these prevention programs and strategies can be substantially reduced or even nullified in populations with low HL.[14,15,16]

Health literacy and falls prevention

HL is a multidimensional concept which, according to the WHO[7] "represents the knowledge and personal skills that accumulate through daily activities, social interactions and generations. Personal knowledge and skills are mediated by organizational structures and the availability of resources that enable people to access, understand, evaluate and use information and services in order to promote and maintain good health and well-being for themselves and those around them".(p.6)[7] As a modifiable determinant of health,[47] HL refers to the set of individual knowledge and skills acquired through daily activities, social interactions and intergenerational transmissions. It represents the organizational structures and resources and personal skills that enable people to access, understand, evaluate and use health information and services efficiently in order to maintain and/or improve health, both at an individual and collective level.[48,49] It is a multidimensional and dynamic construct that has received increasing attention in the scientific literature, mainly due to its relevance in promoting health and improving people's quality of life.

According to Nutbeam and Lloyd,[48] there are three distinct levels of HL, which can be conceptually subdivided into functional, interactive and critical, with a progression that goes from the most elementary level (functional) to the most complex (critical). At the functional level, HL refers to the basic skills for obtaining and using health-related information. The interactive level covers the ability to extract and interpret health information, apply new knowledge to changing circumstances and participate in interactions to expand information and make decisions. The critical level, the highest level, implies the capacity for critical analysis and self-control in health management.[48,49] In this context, the level of HL affects a person's ability to engage in health promotion processes and decision-making, directly influencing health outcomes.

The promotion of HL, with the aim of empowering specific groups, is established as one of the priority areas in the National Health Literacy and Behavioral Sciences Plan 2023-2030, drawn up by the Directorate-General for Health (DGS), in line with the National Health Plan[19,50] This emerges as a fundamental need, as low levels of HL are associated with higher rates of hospitalization, mortality and premature death, as well as poor adherence to the therapeutic regime, decreased prevention and worse health status, having a negative impact on individual and collective health.[51,52,53,54]

There is a consensus in the literature that HL levels in the elderly are low.[17,18,19,20] On the other hand, accidents due to falls are frequently observed in this age group[9,55] and most of them result in complications that significantly compromise their functionality, quality of life and well-being.

A research study by Li et al.[57] reveals that elderly people with adequate HL have a lower prevalence of falls. The same study concluded that HL is one of the determinants of healthy ageing, but there are few studies exploring the relationship between health literacy and the occurrence of falls.

The RNS has a wide field of intervention in the promotion of HL for the prevention of falls, considering its specific competencies,[58] as well as the Regulation of Quality Standards for Specialized Care in Rehabilitation Nursing,[59] which encompass health promotion and the prevention of complications.

When we reflect on the concept of HL, we are implicitly addressing issues related to knowledge acquisition, skills development, informed decision-making, empowerment, health, well-being and longevity.[60] In this context, the RNS presents itself as an essential link in the promotion of HL, mobilizing and making resources available, providing personalized education/teaching and instruction/

training, as well as strategies for health management and autonomous and informed decision-making, with the aim of enhancing quality of life, empowerment and adherence to prevention and/or treatment for users.

As stated by the WHO[9], fall prevention strategies should focus on promoting educational and training programs, creating safer environments, prioritizing research into the phenomenon of falls and developing effective public policies aimed at mitigating risks. In this sense, and considering their competencies, the RNS[58,61] acts as a promoter of older people's HL for fall prevention in three main areas: identification and assessment of fall risk factors; mobilization and provision of resources in the field of fall prevention; education, teaching and training for fall prevention.

The evidence shows that it is essential to ensure that a systematic and continuous assessment of the risk of falls is carried out, especially in the elderly, given its crucial role in preventing incidents.[62,63,64] Thus, fall prevention must include the assessment of multiple risk factors, the communication and dissemination of information about the risks involved, the implementation of preventive and corrective measures at an institutional level, as well as the carrying out of personalized interventions.[65]

A review of the literature by Park et al.[16] reveals that nurses should recognize and assess patients' level of HL as a potential risk factor for falls, adopting personalized preventive interventions according to their level of HL. In this context, the RNS has added competencies [58,59] which make them able to carry out an accurate and thorough risk assessment. They carry out a detailed assessment of the user's physical and cognitive conditions, thus identifying risk factors that may contribute to falls. They draw up an individualized care plan that includes teaching and training activities of daily living, rehabilitation exercises, environmental adaptations and teaching and training safe mobility strategies.

In the light of scientific evidence, the guidelines for fall prevention advocate the adoption of a multifactorial approach, in which targeted interventions should be integrated and adjusted to the particularities of each individual.[62,63]

Implications for the formulation of health and aging policies

Quoting the results of a Scoping Review by Fernandes et al.[66] Interventions that prevent falls in the elderly are multifactorial risk assessment, environmental change, exercises to maintain muscle strength, body balance and the ability to walk, as well as the ability to perform basic activities. The RNS must carry out a comprehensive assessment of the elderly person at risk of falling, using validated assessment tools. The interventions implemented must be in line with the risk factors identified. These include training in muscle strength, balance, gait and environmental modification.[66]

A study carried out by Silva et al.[67] concludes that the RNS plays a key role in managing the risk of falls and implementing effective measures to prevent their occurrence, ensuring an improvement in the quality of care provided and patient safety.

When talking about the Rehabilitation process, it is essential to remember that the health education process is at the heart of the preventive rehabilitation process, where elderly users assessed by nurses can start the health education process aimed at minimizing falls or the risk of falling, a process named by the Fall Prevention Education (FPE).[68,69] Fall prevention education (FPE) is one of the strategies used to reduce the occurrence of falls and the associated costs.[70] It is crucial that the process of raising awareness of fall prevention begins with education about the risk factors associated with falls.[63,71,72] This approach will help to improve the knowledge and awareness of the elderly in terms of recognizing the risks of falls, enabling the early implementation of preventive strategies.[42,63]

Assessing older people's knowledge deficits is the first step towards implementing individualized and appropriate instruction. [68,73] All older people should be advised on falls prevention and physical activity.[63] Older people are interested in participating in fall prevention behaviors if they perceive that their risk of falling is modifiable. Understanding older people's perceptions of their fall risk and prevention strategies is essential to engaging older people in fall prevention.[74]

The RNS's intervention in the areas of knowledge and learning the person's skills promotes empowerment, decision-making and the transition to action. In this way, it contributes to the development of skills and competencies that make the person feel capable of dealing with the challenges that arise in everyday life as a result of transition processes.[75] From this perspective, in partnership with the elderly person, resources are mobilized and strategies developed with the aim of promoting their training and empowerment, with a view to mobilizing effective skills, competences and behaviours in the field of fall prevention.

It is the responsibility of the RNS, within the scope of their competencies,[57,60] to mobilize education and health promotion strategies aimed at empowering the elderly person, providing information, knowledge and tools that enable the elderly person to make decisions and adopt appropriate behaviors aimed at preventing falls. Tools that provide well-founded, structured information in a language adapted to the target population help to increase adherence to and adoption of health-promoting behaviors.[76] The prevention of falls in the elderly is an area of intervention in which information tools (manuals, leaflets, videos) are often used, usually as part of the educational component of multifactorial programs.[77] However, it is essential to take into account the variability in the health literacy of the target population when constructing these materials, taking into account the principles of health literacy adequacy recommended by the Health Literacy INDEX.[78]

The literature review corroborates the view that promoting HL is a determining factor in reducing the risk of falls.[13,14,16,38] The urgent role of nursing in the prevention of falls is of indisputable importance and of such magnitude that it cannot be minimized or neglected.[67,71] Thus, it is imperative that the RNS integrate the promotion of HL as preventive strategies aimed at reducing the risk of falls among the elderly.

Limitation

As a limitation to the research carried out, we would highlight the scarcity of specific studies that address, in an integrated manner, the intervention of the RNS in the promotion of HL, with an emphasis on the prevention of falls in the elderly. Although

there is ample scientific production related to the prevention of falls in the elderly and the HL of the elderly, there is a gap in the literature that integrates these two areas of study.[57] The lack of robust and targeted evidence in this area highlights the need to develop future studies that explore this interface, in order to substantiate and enhance the specialized practice of rehabilitation nursing, contributing to the creation and development of interventions based on scientific evidence, which favor the promotion of HL for the prevention of falls in the elderly population.

CONCLUSION

Promoting the HL of the elderly in the prevention of falls is crucial for developing skills that enable autonomous and informed decision-making. As well as helping to identify and mitigate risk factors, it contributes to effective interaction between older people and health services, professionals and other interlocutors. In this context, the role of the RNS is particularly important. Through educational strategies, the RNS trains the elderly to understand risk factors, recognize warning signs and adopt appropriate preventive behaviours. In addition, they act as a facilitator in mobilizing and making available resources aimed at preventing falls, thus contributing to the implementation of effective strategies in this area. In this way, the work of the RNS promotes the autonomy and safety of the elderly, reducing the risk of falls and promoting their quality of life, with a positive impact on the health and well-being of this population.

It is therefore imperative to develop and implement strategies and tools that encourage adherence and the adoption of preventive behaviors, taking into account the different levels of health literacy in the elderly. Finally, given the scarcity of studies on this subject, it is considered essential to carry out further research into the relationship between the promotion of health literacy, the occurrence of falls in the elderly and the role of the RNS. Only in this way will it be possible to guarantee a holistic and integrated approach, based on evidence, with a view to promoting quality of life and reducing the risk of falls in the elderly.

This approach will make it possible to consolidate the RNS's intervention as a central element in the promotion of HL and the prevention of falls in the elderly, in line with effective care strategies, thus helping to improve the quality of life of this population. In this context, it is essential to develop studies using rigorous methodologies and standardized assessment instruments in order to generate robust scientific evidence to support care for the elderly in the context of promoting HL and preventing falls.

BIBLIOGRAPHICAL REFERENCES

1. World Health Organization. Ageing and health (Internet). Geneva: World Health Organization; 2022[Cited 2025 Mar 04]. Available from: https://www.who.int/es/news-room/fact-sheets/detail/ageing-and-health

2. Instituto Nacional de Estatística. Estatísticas Demográficas. 2022 (Internet). Lisboa: INE; 2023[Cited 2025 Mar 04]. Available from: https://www.ine.pt/xurl/pub/280978178

3. Instituto Nacional de Estatística. Projeções de População Residente 2018-2080. (Internet). Lisboa: INE; 31 Mar. 2020[Cited 2025 Mar 04]. Available from: http://www.ine.pt/

4. Santos C, Fernandes JB. Envelhecimento ativo e saudável: desafios e oportunidades. In Fernandes JB, J Domingos J, Castro C, Vareta D, Bernardes C, Godinho C, org. Estratégias para viver ativamente com doença de Parkinson. (p.11-22) Papa-Letras; 2024.

5. Azevedo L. Este país é para velhos? Migrações e envelhecimento em Portugal. InForum Sociológico. Série II 2022[Cited 2025 Mar 04] Jun 30 (No. 40, pp. 73-84). CESNOVA. Available from:https://doi.org/10.4000/sociologico.10567

6. World Health Organization. United Nation's Decade of Healthy Ageing: plan of action 2021–2030. (Internet). Geneva: World Health Organization; 2020[Cited 2025 Mar 04]. Available from: https://www.who.int/publications/m/item/decade-of-healthy-ageing-plan-of-action

7. World Health Organization. Health Promotion Glossary of Terms. (Internet). Geneva: World Health Organization; 2021a[Cited 2025 Mar 04]. Available from: https://www.who.int/publications/i/item/9789240038349

8. Alves T, Silva S, Braz P, Aniceto C, Mexia R, Dias CM. Quedas em pessoas idosas em Portugal: uma abordagem epidemiológica a partir dos dados de 2023 do sistema EVITA. Boletim Epidemiológico Observações. 2024[Cited 2025 Mar 04];13(35):91-6. Available from: https://repositorio.insa.pt/bitstream/10400.18/9178/1/Boletim_Epidemiologico_Observacoes_N35_artigo15.pdf

9. World Health Organization. Falls. World Health Organization (Internet). Geneva: World Health Organization; 2021b[Cited 2025 Mar 04]. Available from: https://www.who.int/news-room/fact-sheets/detail/falls

10. Pereira RC. Fatores associados ao risco de queda entre pessoas idosas vivendo na comunidade: revisão integrativa. Amazônia: Science & Health. 2022[Cited 2025 Mar 04];10(3):56-70. Available from: https://ojs.unirg.edu.br/index.php/2/article/view/3909

11. Mudholkar A, Burke S, Obamiro K. Student-Led Falls Prevention Program for Community-Dwelling Older Adults in a Rural Community: A Pilot Study. Aust J Rural Health. 2025[Cited 2025 Mar 22] Feb;33(1):e13221. https://doi.org/10.1111/ajr.13221

12. Centers for Disease Control and Prevention (CDC). Facts About Falls | Older Adult Fall Prevention. (Internet). 2024[Cited 2025 Mar 04]. Available from: https://www.cdc.gov/falls/data-research/facts-stats/index.html

13. Peng M, Zhang X, Cui M, Cai Y, Yan Q, Wang Y. The falls health literacy scale: translation, cultural adaptation, and validation of the Chinese version. BMC Public Health. 2024; 28;24(1):2329. https://doi.org/10.1186/s12889-024-19784-0

14. Damar HT, Ciritoğlu B, Aslan G, Öztürk M. Investigating the relationship between fall prevention behaviors and health literacy in hospitalized older patients. Geriatrik Bilimler Dergisi. 2023;6(1):1-2. https://doi.org/10.47141/geriatrik.1218729

15. Lim ML, van Schooten KS, Radford KA, Delbaere K. Development and initial validation of the falls health literacy scale. Maturitas. 2022;159:40-5. https://doi.org/10.1016/j.maturitas.2021.12.002

16. Park Y, Kim SR, Seo HJ, Cho J. Health Literacy in Fall-Prevention Strategy: A Scoping Review. Asian Nurs Res. 2024;18(5): 532-544. https://doi.org/10.1016/j.anr.2024.10.011

17. Barati, M, Porluki, M, Zafari, Z, Cheraghi, P, Cheraghi, Z, Sadri, M. The association between health literacy and quality of life in the older adults: A cross-sectional study. Aging Med. Healthc.2023;14(4): 209-213. https://doi.org/10.33879/AMH.XXX.2022.08077

18. Beese AS, Jaks R, Alder E, Gani SM. A Delphi study on health literacy competencies for health professionals. BMC Med. Educ. 2025;25(1):38. https://doi.org/10.1186/s12909-024-06539-z

19. Direção Geral da Saúde. Plano Nacional de Literacia em Saúde e Ciências do Comportamento 2023-2030 (Internet). Lisboa: Direção Geral da Saúde; 2023[Cited 2025 Mar 04]. Available from: https://www.dgs.pt/ficheiros-de-upload-2013/pnlscc-2023-2030-pdf.aspx

20. Direção Geral da Saúde. Níveis de Literacia em Saúde – Portugal (Internet). Lisboa: Direção Geral da Saúde; 2021[Cited 2025 Mar 04]. Available from: https://doi.org/10.13140/RG.2.2.21632.15367

21. Nunes MR, da Silva BL, Nunes KR, Nunes DR, da Costa Freitas F, de Oliveira Dantas IR, Leal ÉG, da Silva LP, da Silva FD, dos Reis Caixeta E. Literacia em saúde na prática de assistência de enfermagem: revisão integrativa. Cad. Pedagóg. 2025; 22(1): e13743-. https://doi.org/10.54033/cadpedv22n1-289

22. Azevedo L, Riscado P, Maia C. A influência do envelhecimento ativo na qualidade de vida da pessoa idosa: revisão integrativa da literatura. HIGEIA. 2022[Cited 2025 Mar 04];7(IV):17-27. Available from: http://hdl.handle.net/10400.11/8072

23. Marques da Costa E, Louro A, Marques da Costa N, Dias M, Barata M. Walking Accessibility to Primary Healthcare Services: An Inequity Factor for Olders in the Lisbon Metropolitan Area (Portugal) [Internet]. Education and Human Development. IntechOpen; 2024. Available from: http://dx.doi.org/10.5772/intechopen.106265

24. Tavares JC, Santinha G, Rocha NP. Política de saúde num contexto de envelhecimento demográfico.: Princípios amigos da pessoa idosa: uma prioridade programática?. Finisterra. 2023;58(123):61-85. https://doi.org/10.18055/Finis29037

25. Principi A, Di Rosa M, Domínguez-Rodríguez A, Varlamova M, Barbabella F, Lamura G, Socci M. The active ageing index and policy making in Italy. Ageing Soc. 2023[Cited On 2025 Mar 04] Nov;43(11):2554-79. https://doi.org/10.1017/S0144686X21001835

26. Quattrini S, Principi A, Lucantoni D, Socci M, Fabbietti P, Giammarchi C, Riccetti F. Identifying Active Ageing Policy Needs at the Meso-Level. Sustain. 2024;16(1): 437. https://doi.org/10.3390/su16010437

27. Fernández Salido N, Gallego Valadés A, Serra Castells C, Garcés Ferrer J. Promoting active ageing: The positive impact of older people's participation in Urban Gardens. Eur. J. Public Health. 2024;34(S3):ckae144-1795. https://doi.org/10.1093/eurpub/ckae144.1795

28. Wang G, Chang F, Gu Z, Kasraian D, van Wesemael PJ. Co-designing community-level integral interventions for active ageing: A systematic review from the lens of community-based participatory research. BMC Public Health. 2024;Mar 1;24(1):649. https://doi.org/10.1186/s12889-024-18195-5

29. Águas D, Henriques A, Câmara G, Arriaga M, Costa A. A promoção da literacia em saúde no envelhecimento saudável. Estratégias para viver ativamente com doença de Parkinson; 2024[Cited 2025 Mar 11]. Avaliable from: https://www.

ordemdospsicologos.pt/ficheiros/documentos/opp_comunidadeproevelhecimento_selo_documento.pdf

30. Pontes FG, de Oliveira Turibio T, Pedreira RC, Pontes HA, Vieira BM, Barbosa MT, de Paula MM, Lopes SJ, de Souza JB, Sales MF. Senescência e mudanças corporais: uma análise abrangente das alterações fisiológicas e funcionais no envelhecimento. Cad Pedagóg. 2025;22(1):e13561. https://doi.org/10.54033/cadpedv22n1-212

31. Puglia CC, Coutinho LG, Bloch FV, Sgarbossa L, Silva MN, Pontes HC, Costa VM, de Souza Gonçalves AE, Rolim FB, Neta ZD. Abordagens para o envelhecimento ativo e saúde do idoso. Braz. J. Implantol. Health Sci. 2024;6(4):1320-30. https://doi.org/10.36557/2674-8169.2024v6n4p1320-1330

32. Barbosa KT, de Oliveira FM, Cabral JV, Abdala ED, Vieira AV, Gomes GL, Fernandes MD. Análise do envelhecimento humano sob perspectiva dos profissionais de saúde utilizando a Grounded Theory. Rev. Pesq. Qual. 2025;13(33):78-93. http://dx.doi.org/10.33361/RPQ.2025.v.13.n.33.811

33. Leite AK, de Lima Lovadini V, dos Santos TM, de Oliveira BR, Ferreira LB. Functional capacity of the institutionalized elderly evaluated by the KATZ. Rev. Enferm. Atual In Derme. 2020;91:21. https://doi.org/10.31011/reaid-2020-v.91-n.29-art.640

34. Santinha G, Soares C, Forte T. Strategic planning as the core of active and healthy ageing governance: a case study. Sustain. 2023;15(3):1959. https://doi.org/10.3390/su15031959

35. 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. 2022;17(1):334. https://doi.org/10.1186/s13018-022-03222-1

36. Appeadu MK, Bordoni B. (2023). Falls and fall prevention in older adults. InStatPearls (Internet). StatPearls Publishing. 2023[Cited 2025 Mar 11]. Avaliable from: https://www.ncbi.nlm.nih.gov/books/NBK560761/

37. Soares TA, da Silva JJ, Lopo NC, Oliveira RC, de Souza Bezerra H, de Oliveira Távora RC. Fatores intrínsecos para os riscos de quedas entre pessoas idosas: revisão integrativa. Rev DELOS. 2025;18(63):e3602 https://doi.org/10.55905/rdelosv18.n63-091

38. Douglas NF, Wallace SE, Cheng CI, Mayer NC, Hickey E, Minick K. A Role for Health Literacy in Protecting People With Limited English Proficiency Against Falling: A Retrospective, Cohort Study. Arch. Phys. Med. Rehabil. 2025;106(1):37-41. https://doi.org/10.1016/j.apmr.2024.08.011

39. de Oliveira FJ. A influência da atividade física na mobilidade e prevenção de acidentes entre idosos: um enfoque em saúde preventiva e qualidade de vida. RECIMA21- Rev. cient. multidiscip. 2025;6(1):e616111-. https://doi.org/10.47820/recima21.v6i1.6111

40. Abell JG, Lassale C, Batty GD, Zaninotto P. Risk factors for hospital admission after a fall: a prospective cohort study of community-dwelling older people. J Gerontol A 2021;76(4):666-74. https://doi.org/10.1093/gerona/glaa255

41. Panato D, Longen WC, Minetto AI, Soratto J. Prevenção de quedas em idosos: relato de experiência de formação em serviço para equipe de saúde da família. Arquivos de Ciências da Saúde da UNIPAR. 2024;28(1):447-63. https://doi.org/10.25110/arqsaude.v28i1.2024-11093

42. de Oliveira SN, Herkrath FJ, Estrázulas DM, de Lima Macedo M, Scantbelruy KA, Queiroz AM, Estrázulas JA. Risco de quedas por pessoas idosas residentes em localidades rurais ribeirinhas da amazônia. Estud. Interdiscipl. envelhec. 2025;30. https://doi.org/10.22456/135520

43. Camp K, Murphy S, Pate B. Integrating fall prevention strategies into EMS services to reduce falls and associated healthcare costs for older adults. Clin Interv Aging. 2024;19:561-569. https://doi.org/10.2147/CIA.S453961

44. Dehnavi M, Mazlom SR, Mohajer S, Sadeghi T, Namazinia M, Baghie D. Investigating the effect of using a home safety training application by caregivers on accident risk management in the elderly. Exp. Gerontol. 2025;199:112661. https://doi.org/10.1016/j.exger.2024.112661

45. Ghasemi N, Fallah H, Ghasemi M, Najafipour A. Comprehensive fall prevention strategies in elderly: a systematic review. Iran J Ergon. 2024;12(3):0-. https://doi.org/10.32592/IJE.12.3.229

46. Halimah N, Mufarokha H. Influence Chair Yoga Exercise on Decreasing the Risk of Falls for the Elderly. Journal La

Medihealtico. 2025;6(1):125-31. https://doi.org/10.37899/journallamedihealtico.v6i1.1877

47. Jia S, Si Y, Guo C, Wang P, Li S, Wang J, Wang X. The prediction model of fall risk for the elderly based on gait analysis. BMC Public Health. 2024;24(1):2206. https://doi.org/10.1186/s12889-024-19760-8

48. Nutbeam D, Lloyd JE. Understanding and responding to health literacy as a social determinant of health. Annu. Rev. Public Health. 2021;42(2021):159-73. https://doi.org/10.1146/annurev-publhealth-090419-102529

49. Nutbeam D, Muscat DM. Health promotion glossary 2021. Health Promot. Int. 2021;36(6):1578-98. https://doi.org/10.1093/heapro/daaa157

50. Sørensen K, Levin-Zamir D, Duong TV, Okan O, Brasil VV, Nutbeam D. Building health literacy system capacity: a framework for health literate systems. Health Promot. Int. 2021;36(S1):i13-23. https://doi.org/10.1093/heapro/daab153

51. Direção Geral da Saúde. Plano Nacional de Saúde 2030 (Internet). Lisboa: Direção Geral da Saúde. 2022[Cited 2025 Mar 11]. Avaliable from: https://pns2030.pt/

52. Arriaga M, Francisco R, Nogueira P, Oliveira J, Silva C, Câmara G, Sørensen K, Dietscher C, Costa A. Health literacy in Portugal: Results of the health literacy population survey project 2019–2021. Int. J. Environ. Res. Public Health. 2022;19(7):4225. https://doi.org/10.3390/ijerph19074225

53. Cruz B, Sousa C, de Almeida CV. Literacia em Saúde: Um investimento seguro nas políticas públicas. Lusíadas Scient J. 2023;4(1):9-15. https://doi.org/10.48687/lsj.147

54. Gokdemir O, Kushwaha P, Shikha D, Petrazzuoli F, Bhattacharya S. Health literacy and disease prevention. Frontiers Public Health. 2024;12:1369146. https://doi.org/10.3389/fpubh.2024.1369146

55. Mingote CM, Mingote CM, Ferreira EA, Sousa MC, Rodrigues MC. Literacia em Saúde dos Utentes com Hipertensão Arterial. Revista Portuguesa de Hipertensão e Risco Cardiovascular. 2024; (99):10-21. https://doi.org/10.58043/rphrc.113

56. Ganz DA, Latham NK. Prevention of falls in community-dwelling older adults. N Engl J Med. 2020;382(8):734-43. https://doi.org/10.1056/NEJMcp1903252

57. Li S, Wang J, Ren L, Ye P, Niu W, Yu M, Hu Y, Jiang Y, Wu Y, Tian M, Zhao Y. Health literacy and falls among community-dwelling older people in China: is there a sex difference?. Aging Clin Exp Res. 2024;36(1):148. Available from: https://doi.org/10.1007/s40520-024-02788-6

58. Ordem dos Enfermeiros. Padrão Documental dos Cuidados de Enfermagem na Especialidade de Enfermagem de Reabilitação (Internet). 2015. Available from: https://www.ordemenfermeiros.pt/arquivo/colegios/Documents/2015/MCEER_Assembleia/PadraoDocumental_EER.pdf

59. Ordem dos Enfermeiros. Padrões de Qualidade dos Cuidados Especializados em Enfermagem de Reabilitação (Internet). 2018. Available from: https://www.ordemenfermeiros.pt/media/8141/ponto-4_regulamento-dos-padr%C3%B5es-qualidade-ceer.pdf

60. Belim C. A literacia em saúde: um caminho a percorrer com o contributo do conhecimento e da revista Portuguesa de Literacia em Saúde. Revista Portuguesa de Literacia em Saúde (Internet). 2023;1(1): 4-15. Available from: https://splsportugal.com/wp-content/uploads/2023/11/revista-portuguesa-literacia-saude-edicao-1-1.pdf

61. Ordem dos Enfermeiros. Regulamento das Competências Comuns do Enfermeiro Especialista. Diário da República: II Série, nº 26, (pp.4744-4750). (Internet)2019a. Available from: https://www.ordemenfermeiros.pt/media/10778/0474404750.pdf

62. Elsayed AE, Almutairi SN, Alanazi FN, Aleidan NH, Alayyubi AM, Alzubaidi AA, Alshamrani AA, Almazayen FM, Alkhars AH, Alshakhs MM, Alshammasi MT. Assess Systematic Fall Risk Assessment and Prevention Intervention for Elderly Hospitalized Adults. Metall. Mater. Eng. 2025;31(1):20-7. https://doi.org/10.63278/mme.v31i1.1203

63. Montero-Odasso M, Van Der Velde N, Martin FC, Petrovic M, Tan MP, Ryg J, Aguilar-Navarro S, Alexander NB, Becker C, Blain H, Bourke R. World guidelines for falls prevention and management for older adults: a global initiative. Age Ageing. 2022;51(9):afac205. https://doi.org/10.1093/ageing/afac205

64. Stuby J, Leist P, Hauri N, Jeevanji S, Méan M, Aubert CE. Intervention to systematize fall risk assessment and prevention in older hospitalized adults: a mixed methods study. BMC Geriatr. 2025;25(1):45. https://doi.org/10.1186/s12877-025-05703-4

65. Direção-Geral da Saúde. Plano Nacional para a Segurança dos Doentes 2015-2020 (Internet). Lisboa: Direcção-Geral da Saúde; 2015 Available from: https://dre.pt/application/file/66457154.

66. Fernandes JB, Sá MC, Nabais AS. Intervenções do enfermeiro de reabilitação que previnem a ocorrência de quedas na pessoa idosa: Revisão Scoping. Rev Port Enferm Reabil. 2020;3(1):57-63. https://doi.org/10.33194/rper.2020.v3.n1.7.5761

67. Silva C, Borges A, Alves P, Novo A. A importância do papel do EEER na gestão de quedas em contexto hospitalar-qualidade e segurança na saúde (Internet). InCongresso Internacional de Enfermagem de Reabilitação (pp. 129-130). Associação Portuguesa de Enfermagem de Reabilitação; 2024. Available from: http://hdl.handle.net/10198/30693

68. Ong MF, Soh KL, Saimon R, Wai MW, Mortell M, Soh KG. Fall prevention education to reduce fall risk among community-dwelling older persons: A systematic review. J. Nurs. Manag. 2021;29(8):2674-88. https://doi.org/10.1111/jonm

69. Santos de Farias W, Hartmann C, Dias Lopes GC, Espósito de Alencar Fernandes CL, Pereira da Silva U. Enfermagem em Reabilitação: atuação e expectativas. GeSec: Rev. Gest. Secr. 2024;15(5). https://doi.org/10.7769/gesec.v15i5.3843

70. Chaudhry R. Education on Fall Risk Prevention Strategies (Internet). Grand Canyon University; 2020 Available from: https://search.proquest.com/docview/2427497219?

71. Tiago Horta RD. Falls prevention in older people and the role of nursing. Br. J. Community Nurs. 2024;29(7):335-9. https://doi.org/10.12968/bjcn.2024.0005

72. Jehu DA, Davis JC, Falck RS, Bennett KJ, Tai D, Souza MF, Cavalcante BR, Zhao M, Liu-Ambrose T. Risk factors for recurrent falls in older adults: A systematic review with meta-analysis. Maturitas. 2021;144:23-8. https://doi.org/10.1016/j.maturitas.2020.10.021

73. Chidume T. Promoting older adult fall prevention education and awareness in a community setting: A nurse-led intervention. Appl. Nurs. Res. 2021;57:151392. https://doi.org/10.1016/j.apnr.2020.151392

74. Kiyoshi-Teo H, Northrup-Snyder K, Robert Davis M, Garcia E, Leatherwood A, Izumi S. Qualitative descriptions of patient perceptions about fall risks, prevention strategies and self-identity: Analysis of fall prevention motivational interviewing conversations. J Clin Nurs. 2020;29(21-22):4281-8. https://doi.org/10.1111/JOCN.15465

75. Sousa L, Martins MM, Novo A. A Enfermagem de Reabilitação no empoderamento e capacitação da pessoa em processos de transição saúde-doença. Rev Port Enferm Reabil. 2020;3(1):64-9. https://doi.org/10. 10.33194/rper.2020.v3.n1.8.5763

76. da Silva LC, Malta AD, Marques CM, de Lima F, Abuhid MD, Santos PR, de Aguiar Raupp W. Literacia em saúde: perspectivas e desafios, uma revisão de literatura. Cad Pedagóg. 2024;21(3):e3451-. https://doi.org/10.54033/cadpedv21n3-220

77. Barner YM, Vaughan-Robinson L, Adjei J. Implementing Policy to Increase Health Literacy in Falls Prevention: A Teach-Back and Show-Back Intervention. J Public Health Deep South. 2024;4(1):6. https://doi.org/10.55533/2996-6833.1079

78. Ghalenow HR, Nikpeyma N, Kazemnejad A, Ansari M, Pashaeypoor S. Effect of educational program based on health literacy index on self-care ability among older adults: A randomized clinical trial. Int. J. Prev. Med. 2022[Cited On 2025 Mar 18] Jan 1;13(1):24. https://doi.org/10.4103/ijpvm.IJPVM_506_20

FINANCING

No financing.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

AUTHORSHIP CONTRIBUTION

Conceptualization: Leonor Carvalho, Marta Carvalho.
Data curation: Leonor Carvalho, Marta Carvalho.
Formal analysis: Leonor Carvalho, Marta Carvalho.
Research: Leonor Carvalho, Marta Carvalho.

Methodology: Leonor Carvalho, Marta Carvalho; Luís Sousa.
Supervision: Sandy Severino, Luís Sousa.
Validation: Sandy Severino, Ricardo Mestre, Luís Sousa.
Drafting - original draft: Leonor Carvalho, Marta Carvalho.
Writing - proofreading and editing: Leonor Carvalho, Marta Carvalho, Ricardo Mestre, Sandy Severino, Luís Sousa.

https://doi.org/10.56294/cid2025143