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Educational actions for caregivers: an urgent strategy for preventing accidents in the homes of the elderly***Acciones educativas en cuidadores: estrategia impostergable para prevención de accidentes en hogar del adulto mayor***

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RESUMEN

El envejecimiento poblacional constituye uno de los fenómenos demográficos más trascendentes del siglo XXI, con implicaciones profundas para los sistemas de salud y las familias. En Cuba, más del 25 % de la población supera los 60 años, y se proyecta que esta cifra alcance el 36,4 % en 2050. Los accidentes en el hogar, particularmente las caídas, representan una de las principales causas de morbilidad y mortalidad en este grupo etario, y la mayoría son prevenibles mediante la modificación de factores ambientales y el fortalecimiento de las competencias de los cuidadores. No obstante, los cuidadores informales —habitualmente familiares sin formación especializada— presentan déficits significativos en conocimientos sobre prevención de accidentes, lo que evidencia una brecha entre la necesidad de cuidado seguro y la preparación real de quienes lo ejercen. El objetivo de este artículo es argumentar la necesidad de implementar acciones educativas sistemáticas, participativas y teóricamente fundamentadas dirigidas a cuidadores de adultos mayores, como estrategia central de la enfermería comunitaria para la prevención de accidentes en el hogar. Se sostiene que dichas intervenciones, fundamentadas en modelos como la Teoría Cognitiva Social de Bandura, el Modelo de Promoción de la Salud de Pender y el enfoque dialógico de Freire, constituyen una estrategia científicamente fundamentada y éticamente imperativa.

ABSTRACT

Population aging constitutes one of the most significant demographic phenomena of the 21st century, with profound implications for health systems and families. In Cuba, more than 25 % of the population is over 60 years of age, and this figure is projected to reach 36.4 % in 2050. Accidents at home, particularly falls, represent one of the main causes of morbidity and mortality in this age group, and most are preventable by modifying environmental factors and strengthening the skills of caregivers. However, informal caregivers—usually family members without specialized training—present significant deficits in knowledge about accident prevention, which shows a gap between the need for safe care and the actual preparation of those who provide it. The objective of this article is to argue the need to implement systematic, participatory and theoretically based educational actions aimed at caregivers of older adults, as a central strategy of community nursing for the prevention of accidents at home. It is argued that these interventions, based on models such as Bandura's Social Cognitive Theory, Pender's Health Promotion Model and Freire's dialogic approach, constitute a scientifically based and ethically imperative strategy.

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The aging of the world population is an irreversible phenomenon that imposes a redefinition of public health priorities. According to the World Health Organization, the number of people over 60 years of age is expected to double globally by 2050 ⁽¹⁾. In Latin America and the Caribbean, it is estimated that in 2024 around 68 million people aged 65 or older were living there, and this figure is projected to reach 138 million by 2050 ⁽²⁾. Cuba, in particular, exhibits one of the most accelerated aging processes in the region: at the close of 2024, 25,7 % of the population was 60 years or older, and this proportion is expected to rise to 36,4 % by 2050 ^(3,4).

This demographic change imposes unprecedented challenges on health systems, especially regarding the safety and well-being of older adults in the domestic environment. Home accidents—falls, burns, poisonings, choking—constitute one of the main causes of avoidable morbidity and mortality in this age group. The WHO recognizes that falls constitute one of the main causes of disability and death among older adults, and it is estimated that around 30 % of older people experience at least one fall per year ^(3,5). It is calculated that about one-third of adults over 65 years of age living in the community suffer at least one fall per year ⁽³⁾.

Faced with this reality, informal caregivers—people who provide unpaid assistance to a dependent individual—emerge as strategic actors in the fabric of home care. However, the available evidence documents that these caregivers present significant deficits in key aspects for safe care, such as knowledge about accident prevention, correct medication administration, emergency management, and adequacy of the physical home environment ^(17,18).

Therefore, the objective of this article is to argue for the need to implement systematic, participatory educational actions with theoretical grounding, as a central strategy of community nursing for the prevention of home accidents.

The informal caregiver: an underserved health agent

The informal caregiver, defined as that person—usually a family member—who provides unpaid assistance to a dependent individual, assumes responsibilities ranging from the satisfaction of basic needs to the supervision of health and the guarantee of safety ⁽¹⁷⁾. Unlike the formal or professional caregiver, the informal caregiver generally does not possess specialized training, which increases both their personal vulnerability—known as caregiver syndrome—and the risks to which they involuntarily expose the older adult under their care ^(17,18).

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Various investigations have documented that informal caregivers present significant deficits in essential competencies for safe care (7,8,18). These deficits are not exclusively attributable to the caregiver's will or capacity, but reflect the historical absence of systematic and accessible educational programs aimed at this population. The lack of preparation translates into concrete consequences: higher incidence of domestic accidents, increase in avoidable hospitalizations, deterioration of the older adult's quality of life, and overload of the health system (5,8).

The authors believe that the figure of the informal caregiver constitutes a critical link in the care chain, and that their formative neglect represents a structural failure of the health system. The authors believe that the training of these caregivers should be a priority line of community nursing, with resource allocation and outcome evaluation.

Theoretical foundations of educational actions in health

Health education, conceptualized by the WHO as any combination of information and education activities that leads people to want to be healthy, know how to achieve health, and do everything possible to maintain it, emphasizes three essential dimensions: the cognitive component (knowledge), the attitudinal component (disposition), and the behavioral component (action) (1).

Nola Pender's Health Promotion Model maintains that health-promoting behavior is determined by individual characteristics, specific cognitions, and the desired behavioral outcome (10). In its application to the caregiver context, variables such as perceived self-efficacy—a concept derived from Bandura—interpersonal influences, and perceived benefits and impediments modulate the probability that the caregiver translates knowledge into concrete prevention actions (10,11).

Bandura's Social Cognitive Theory contributes the concept of self-efficacy, defined as the individual's belief in their capacity to execute the behaviors necessary for the production of specific results (11,12). Research has demonstrated that interventions incorporating modeling strategies, guided practice, and positive feedback notably increase caregiver self-efficacy and, consequently, adherence to preventive practices (11).

Paulo Freire's pedagogical thought criticizes the banking model of education—in which the educator deposits knowledge in a passive

learner—and proposes a dialogical and problem-posing pedagogy, in which popular knowledge and scientific knowledge are articulated in a process of collective construction of knowledge. This approach suggests that educational programs will achieve greater effectiveness when they start from the real experiences, knowledge, and concerns of the participants, and when they promote critical reflection on the conditions that generate risk in the older adult's environment ^(13,14).

The authors maintain that the articulation of these models offers a solid theoretical framework; in their judgment, self-efficacy and dialogue constitute inseparable axes of all educational action, while the mere transmission of information is insufficient to transform behaviors. In particular, Freire's theory, they believe, enables a respectful approach to the caregiver's reality and reinforces their empowerment.

Evidence on the effectiveness of educational interventions

The scientific literature offers consistent reports on the effectiveness of educational interventions aimed at caregivers for the improvement of knowledge, skills, and care practices ^(9,11). A systematic review by Gillespie et al. demonstrated that multifactorial interventions—combining education, environmental modification, and exercise training—can reduce the incidence of falls by up to 30 % ⁽⁹⁾.

In the Cuban context, studies conducted in different provinces documented the effectiveness of educational interventions for increasing caregivers' knowledge about older adult self-care and accident prevention ^(18,19). However, limitations persist: studies adopting participatory and contextualized approaches are scarce, and most are limited to descriptive designs without implementation of comprehensive action systems.

Home accident prevention: an ecological approach

The home environment constitutes at once the space of greatest emotional security and greatest physical risk for the older adult. Lawton and Nahemow developed the environmental competence-press model, according to which the well-being of the older adult depends on the balance between their individual functional capacities and the demands of the environment ⁽²⁰⁾. When the home environment exceeds the older adult's adaptive capacity, the risk of accidents increases notably ^(8,20).

From the ecological perspective, accident prevention should not be limited to the individual, but should integrate the interaction between

the older adult, the caregiver, and the physical environment ⁽²⁰⁾. The authors highlight that, in this model, the caregiver acts as a mediator between the older adult's capacities and environmental demands, which grants their training a strategic value.

The role of nursing in caregiver education

Nursing, as a scientific discipline and professional practice, possesses an ethical and technical mandate to lead educational interventions aimed at caregivers. Dorothea Orem, in her Self-Care Deficit Theory, maintains that, when a person cannot satisfy their own self-care needs—or those of those who depend on them—nursing intervenes to compensate for that deficit through actions of support, guidance, teaching, or direct action ⁽¹⁵⁾.

In the case of informal caregivers with formative deficits in accident prevention, the nursing educational intervention constitutes that supportive action that allows the restoration of safe care capacity. The reduction of the uncertainty that caregivers experience in the face of unpredictable risk situations, through the provision of clear, systematic, and contextualized knowledge, is an essential educational function of community nursing practice ⁽¹⁵⁾.

Educational actions in caregivers for the prevention of home accidents in older adults do not constitute a minor or complementary intervention, but a central strategy, with scientific foundation and imperative ethical character within the framework of a community nursing committed to dignified and safe aging.

The available evidence demonstrates that structured educational interventions with theoretical grounding notably improve caregivers' knowledge, self-efficacy, and preventive practices ⁽⁹⁻¹¹⁾. However, important challenges persist: the need to transcend informative-transmissive models toward participatory and dialogical approaches; the urgency of contextualizing interventions to the cultural and socioeconomic realities of each community; and the requirement to systematically evaluate the results of the actions implemented.

The accelerated aging of the Cuban and Latin American population demands timely and effective responses. The training of informal caregivers, traditionally made invisible in health policies, must be recognized as a public health priority. Community nursing is called to lead this process, with articulation of scientific rigor and human sensitivity, and with the transformation of home care into a space of safety, dignity, and quality of life for the older adult.

BIBLIOGRAPHIC REFERENCES

1. Organización Mundial de la Salud. Envejecimiento y salud [Internet]. Ginebra: OMS; 2022 [cited 14/04/2026]. Available in: <https://www.who.int/es/news-room/fact-sheets/detail/ageing-and-health>
2. Comisión Económica para América Latina y el Caribe. Panorama del envejecimiento en América Latina y el Caribe: desafíos y oportunidades [Internet]. Santiago de Chile: CEPAL; 2025 [cited 14/04/2026]. Available in: <https://www.cepal.org/sites/default/files/events/files/zulmasosa-envejecimientoalc.pdf>
3. Cuba en Datos. La población cubana envejece, decrece y se urbaniza [Internet]. La Habana: Cubadebate; 2025 [cited 14/04/2026]. Available in: <https://www.cubadebate.cu/noticias/2025/06/12/cuba-en-datos-la-poblacion-cubana-envejece-decrece-y-se-urbaniza/>
4. IPSCuba. 2025: Retos y dinámicas del envejecimiento en Cuba [Internet]. La Habana: IPSCuba; 2025 [cited 14/04/2026]. Available in: <https://www.ipscuba.net/2025-retos-y-dinamicas-del-envejecimiento-en-cuba/>
5. Organización Mundial de la Salud. Falls [Internet]. Ginebra: OMS; 2021 [cited 14/04/2026]. Available in: <https://www.who.int/news-room/fact-sheets/detail/falls>
6. Montero-Odasso M, van der Velde N, Martin FC, Petrovic M, et al. World guidelines for falls prevention and management for older adults: a global initiative. Age Ageing. 2022 Sep 2;51(9):afac205. doi: 10.1093/ageing/afac205. Erratum in: Age Ageing. 2023 Sep 1;52(9):afad188. doi: 10.1093/ageing/afad188
7. Dyer SM, Kwok WS, Suen J, Dawson R, Kneale D, Sutcliffe K, et al. Interventions for preventing falls in older people in care facilities. Cochrane Database Syst Rev. 2025 Aug 20;8(8):CD016064. doi: 10.1002/14651858.CD016064.
8. Tinetti ME. Clinical practice. Preventing falls in elderly persons. N Engl J Med. 2003 Jan 2;348(1):42-9. doi: 10.1056/NEJMcp020719.
9. Gillespie LD, Robertson MC, Gillespie WJ, Sherrington C, Gates S, Clemson LM, Lamb SE. Interventions for preventing falls in older people living in the community. Cochrane Database Syst Rev. 2012

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Sep 12;2012(9):CD007146. doi:
10.1002/14651858.CD007146.pub3.

10. Pender N, Murdaugh C, Parsons MA. Health promotion in nursing practice. 7th ed. Boston: Pearson; 2015.

11. Bandura A. Self-efficacy: the exercise of control. New York: Freeman; 1997.

12. Bandura A. Social foundations of thought and action: a social cognitive theory. Englewood Cliffs: Prentice-Hall; 1986.

13. Freire P. Pedagogía del oprimido. Buenos Aires: Siglo XXI; 1970.

14. Freire P. Pedagogía de la autonomía: saberes necesarios para la práctica educativa. Buenos Aires: Siglo XXI; 1997.

15. Orem DE. Nursing: concepts of practice. 4th ed. St. Louis: Mosby; 1991.

16. Green LW, Kreuter MW. Health program planning: an educational and ecological approach. 4th ed. New York: McGraw-Hill; 2005.

17. Rogero-García J. Las consecuencias del cuidado familiar sobre el cuidador: Una valoración compleja y necesaria. Index Enferm [Internet]. 2010 [cited 14/04/2026]; 19(1): 47-50. Available in: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1132-12962010000100010&lng=es

18. Flores G Elizabeth, Rivas R Edith, Seguel P Fredy. Nivel de sobrecarga en el desempeño del rol del cuidador familiar de adulto mayor con dependencia severa. Cienc. enferm. [Internet]. 2012 [cited 14/04/2026]; 18(1): 29-41. Available in: http://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0717-95532012000100004&lng=es

19. Organización Panamericana de la Salud. Década del envejecimiento saludable en las Américas 2021-2030. Washington: OPS; [Internet] 2020 [cited 14/04/2026]. Available in: <https://www.paho.org/es/decada-envejecimiento-saludable-americas-2021-2030>

20. Zacher H. Enhancing the impact of psychological research on aging and adult lifespan development. Psychol Aging. 2025 Feb;40(1):1-5. doi: 10.1037/pag0000874.

CONFLICT OF INTEREST

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