EXPERIENCE REPORT

Nursing process for elderly women susceptible to falls from the perspective of the Pender's Model

Processo de Enfermagem para idosas suscetíveis a queda na perspectiva do Modelo de Pender

Proceso de enfermería para ancianas susceptibles a caídas en la perspectiva del Modelo de Pender

Ana Rafaela Souza Rodrigues[I]
ORCID: 0000-0002-1010-3455

Wanne Letícia Santos Freitas[I]
ORCID: 0000-0002-6726-5148

Sandra Helena Isse Polaro[I]
ORCID: 0000-0001-5026-5080

Lucia Hisako Takase Gonçalves[I]
ORCID: 0000-0001-5172-7814

[I]*Universidade Federal do Pará. Belém, Pará, Brazil.*

Corresponding author:
Ana Rafaela Souza Rodrigues
E-mail: anarafaela_portugal@hotmail.com

ABSTRACT

Objectives: to describe the strategy of applying the nursing process guided by Pender's Health Promotion Model to elderly women susceptible to falls with a view to promoting a self-efficacy behavior for fall prevention. **Methods:** application of the nursing process to eleven elderly women who had already experienced falls, living in a neighborhood in the outskirts of Belem, state of Pará, which involved interviews to obtain their nursing history and group meetings using the focus group technique to develop the other phases of the nursing process: nursing diagnosis, nursing interventions, and nursing assessment. **Results:** despite the risk factors for falls, the intervention model adopted in this study allowed elderly women to enhance their self-efficacy. **Final Considerations:** the model proved to be suitable for the participation of elderly women in actions to build fall prevention behaviors, with a view to healthier lifestyles.

Descriptors: Elderly; Accidental Falls; Nursing Process; Nursing Theory; Nurses

RESUMO

Objetivos: descrever a estratégia de aplicação do processo de enfermagem guiado pelo Modelo de Promoção de Saúde de Pender a idosas suscetíveis a queda com vistas ao comportamento auto eficaz de prevenção de quedas. **Métodos:** aplicação do processo de enfermagem a onze idosas que já haviam sofrido quedas, moradoras em bairro de periferia de Belém, PA, o qual envolveu entrevista para obter o histórico de enfermagem e reuniões grupais, seguindo a técnica do grupo focal para desenvolver as demais fases do processo de enfermagem: diagnóstico de enfermagem, intervenções de enfermagem, avaliação de enfermagem. **Resultados:** apesar dos fatores de risco presentes para quedas, o Modelo adotado de intervenção propiciou a idosas potencializarem seu poder de autoeficácia. **Considerações Finais:** o Modelo mostrou-se adequado ao protagonismo das idosas em ações na construção de comportamentos de prevenção de quedas, com vistas a estilos de vida mais saudáveis.

Descritores: Idosa; Acidentes por Quedas; Processo de Enfermagem; Teoria de Enfermagem; Enfermeira.

RESUMEN

Objetivos: describir la estrategia de aplicar el proceso de enfermería orientado por el Modelo de Promoción de Salud de Pender a ancianas susceptibles a caídas, apuntando a un comportamiento auto eficaz en la prevención de caídas. **Métodos:** aplicación del proceso de enfermería en once ancianas que ya habían sufrido caídas, residentes en un barrio periférico de Belém, PA. Incluyó: entrevista para obtener el historial de enfermería; reuniones grupales, siguiendo la técnica del grupo focal para desarrollar las restantes fases del proceso de enfermería: diagnóstico de enfermería, intervenciones de enfermería, evaluación de enfermería. **Resultados:** a pesar de los factores de riesgo de caídas presentes, el Modelo de intervención adoptado permitió que las ancianas incrementaran su potencial de autoeficacia. **Consideraciones Finales:** el Modelo se mostró adecuado al protagonismo de las ancianas en acciones de construcción de comportamientos preventivos de caídas, con miras a estilos de vida más saludables.

Descriptores: Anciano; Accidentes por Caídas; Proceso de Enfermería; Teoría de Enfermería; Enfermeras y Enfermeros.

INTRODUCTION

Falls are considered a common event that has serious consequences for the elderly. It is not considered an inevitable problem of aging, as it often indicates the individual has some fragility or an acute disease[1]. Estimates suggest that one fall occurs for every three individuals over 65 years of age, and that one person out of 20 with a fall had fractures or was hospitalized. In the age group of 80 years or older, about 40% have at least one fall annually, constituting a special group to be considered by public prevention policies to reduce the risk of falls[1-2].

When analyzing its epidemiology, falls are considered multifactorial events and include intrinsic and extrinsic factors. Intrinsic factors related to the physiological changes result from aging, presence of diseases, psychological state, adverse reactions to medication, muscle weakness, history of falls, gait disorder, balance disorder, use of a support device, visual impairment, reduction of activities of daily living, depression, and reduced cognition[3].

Falls cause important impacts on the health of the elderly – in addition to medical problems, they have psychological and social consequences, including fear of future falls, frailty, functional and affective limitations, loss of autonomy and independence, institutionalization, and death [4].

It is understood that the role of nursing is to investigate, map, and identify the risk factors and situations that favor falls, and it is important to reproduce the social, economic, family, environmental, and behavioral reality, enabling nursing interventions to prevent, recover, and support elderly fallers. These interventions must be guided by constant dialogues to capture intersubjective experiences with family relationships, the community, and the professionals involved in order to achieve prevention based on self-efficacy and safe behaviors[5-7].

In this sense, nurses must have expertise in topics related to falls among the elderly and fall prevention to develop effective and efficient ways to apply the nursing process (NP) for each group or individual, outlining appropriate diagnoses, interventions and attainable goals that seek to raise awareness and encourage self-care and fall prevention among the elderly. Nursing is based on scientific evidence and theoretical frameworks to guide nursing interventions and build robust and personalized strategies. Nola Pender's Health Promotion Model (HPM) is a tool to provide an understanding of the human potential to change, considering that individuals tend to have a potential for self-directed change due to their self-knowledge, self-regulation, decision-making, and problem-solving abilities. People have the power and ability to change health-related behaviors or lifestyles[8-9].

Pender's HPM is a nursing model that has been developed to help nurses understand the determinants of health behaviors for behavioral counseling focusing on the promotion of healthy lifestyles. In this sense, nurses act as intermediaries, encouraging and assisting patients in the various stages of the change process, and supporting the individual's ability to maintain the changes made[9-10]. In practical terms, the HPM can be used to implement and evaluate health promotion actions, allowing the identification of health promotion behaviors by studying the interrelationship of three main determinants: personal characteristics and experiences; feelings and knowledge of the desired behavior; and the desirable health promotion behavior[9].

Considering the above and the fact that there are few studies assessing the application of Pender's HPM to the nursing practice in Brazil, this study was conducted to report the experience of applying a nursing process guided by the HPM to a group of elderly women to help them develop reflections on adopting fall prevention behaviors in their daily lives and feel motivated to do that, favoring healthier lifestyles.

OBJECTIVES

To describe the strategy of applying an NP guided by Pender's Health Promotion Model to a group of elderly women susceptible to falls with a view to promoting a self-efficacy behavior for fall prevention.

METHODS

The strategy application of the nursing process guided by Pender's HPM is part of a Master's thesis developed by the main author of this Report about the role of the elderly in fall prevention, conducted in a convergent care research process[7].

The NP was applied to a group of eleven elderly women who had already experienced falls, and who lived in a populous neighborhood in the outskirts of Belem, in the Brazilian state of Para, characterized by socioeconomic vulnerability and sociospatial marginalization. The strategy of this application consisted of individual interviews to obtain the nursing records (NR) and group meetings held twice a week using the focus group technique with all the elderly participants to develop other phases of the NP, such as nursing diagnosis (ND), nursing intervention (NI) plan, and the nursing assessment (NA). This application was performed from November 2018 to February 2019 and the team that applied the NP comprised a nurse with a master's degree, an academic nurse advisor, and five nursing undergraduate students who were properly trained to participate in this experience.

To facilitate the adoption of the model, a context configuration was designed by the author (Figure 1). The topics mapped for the NR referred to the first two fields of the HPM: Individual characteristics and experiences, and Behavior-specific cognitions (self-perception, interpersonal influences, desire for change) that identify the main determinants of health behavior, influencing people's daily lives. This analysis also included a specific search for accidents caused by falls as a personal experience, using the photovoice technique, in which subjects with expression problems take pictures to express themselves. With the help of the team during a home visit, the elderly women photographed: 1) domestic or external environments that could cause accidents due to falls; 2) situations that helped avoid fall accidents.

After collecting NR data from the elderly women, the team thanked and invited them to continue participating in the experience, explaining that four group meetings would be held to develop the other phases of the NP.

At the first meeting, the coordination nurse greeted and welcomed the elderly, and introduced each member of the nursing team and their roles at the meeting, answering any questions

about the experience. She started the activities by informing how nurses treat patients and, more specifically in this experience, observing all NP stages, explaining the nursing practice to assist users at risk of falling. After explaining the methodology, she summarized the sociodemographic and clinical profile extracted from the initial analysis of NR data conducted by the study team. During the group session, individual data were discussed, adding expanded data from the debate, including the discussion of the meanings attributed to the photographs taken by the participants. Such engagement made the elderly women aware of their risk of falling and possible consequences.

At the second meeting, the stages of ND and NI were developed and discussed. Analysis of expanded data from the NR defined some ND priority selected from the International Classification for Nursing Practice (ICNP)[11]. Chart 1 shows the respective NIs, which were developed, discussed, and planned in the group for each ND.

The third meeting was focused on the NI stage of the NP. The coordinating nurse developed educational care actions, providing a dialogic expository class about falls, discussing the biological, behavioral, and environmental risk factors, as well as consequences and prevention strategies. Also in this NI, some tasks were assigned to participants: re-examine their life situations and the risk factors for possible accidents, and reconsider new behaviors they could assume to avoid future falls. This self-assessment was discussed in the next meeting.

At the fourth meeting, the tasks were discussed, followed by a review and definition of knowledge about the risk factors for falls and prevention behaviors, projecting the NP stage of the participant progress assessment in terms of impact from interventions. The testimonies of the elderly women expressed here showed a desire and predisposition for behavioral changes to avoid risks of falling in their daily lives.
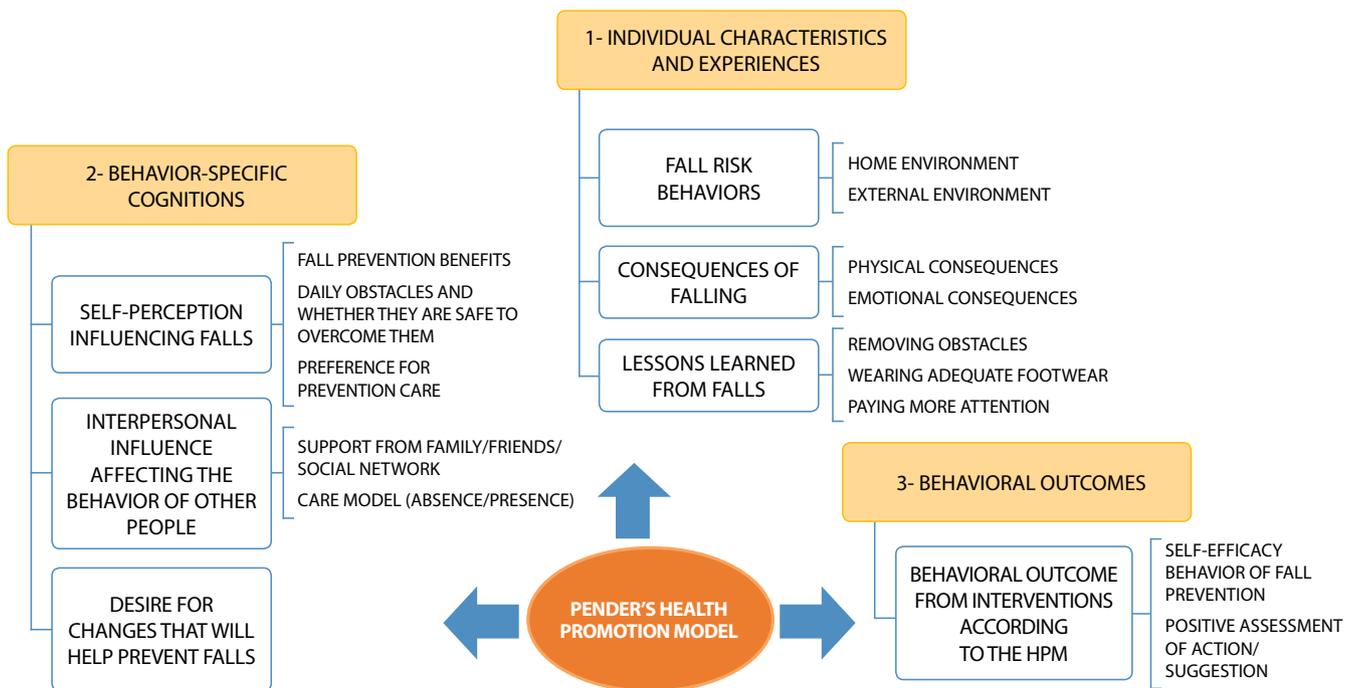
Source: Adapted from Pender et al.[9]

Figure 1 - Pender's Health Promotion Model, adapted by the author[7] with a focus on falls among the elderly and fall prevention

Chart 1 - Nursing diagnosis and respective nursing interventions based on the International Classification for Nursing Practice, Belém, Pará, Brazil, 2020

NURSING DIAGNOSIS	NURSING INTERVENTION
Risk of injury from falls	• Being aware of fall consequences; • Being aware of more serious risks resulting from falls; • Monitoring risks of falls.
Poor knowledge of fall prevention	• Being aware of the main prevention measures: environmental, physical and behavioral aspects; • Reconsidering what to do with the risks present at home and in the external environment.
High or low level of fear of falling	• Reconsidering the attitude of excessive fear or no fear of falling; • Finding a way to overcome the fear of falling.
Poor knowledge of the behavior change process	• Reconsidering daily behavior with aging; • Being aware of how falls can be prevented by changing one's conduct; • Reconsidering life and accepting help.

Source: Based on ICNP[11].

Once the scheduled meetings ended, the coordinator nurse provided feedback and asked the elderly women to individually answer questions related to the "Behavioral Outcome" of Pender's Model, with a special focus on health behaviors regarding the prevention of falls, which they had already expressed in the meeting, in order to record the last stage of the NP.

RESULTS

All participants, aged 61 to 83 years, knew how to read and write and they were Christians. All of them lived with their families, including children, spouses, grandchildren, children-in-law, and sisters-in-law. Regarding the experience of falling, most had already fallen several times at home or on the street, and none of them had serious consequences, only sprain, fainting, and a dislocated shoulder. On the other hand, they answered that such experiences brought some lessons, such as that they should remove obstacles, wear adequate footwear, and pay more attention, as indicated in some statements:

> [...] *I learned that I need adequate footwear to avoid falling, slipping, or tripping.* (Elderly G)

> *I learned that I need to pay more attention; I learned to watch out where I walk.* (Elderly B)

> *I learned to watch out where I walk. I'm careful when I get off the bus because when I put my first foot, I tend to see if my foot is steady on the first step of the bus and hold the bars.* (Elderly E)

However, the risk factors for falls among the elderly participants were present in a spectrum characterized by socioeconomic vulnerability, low education, living in poor urban outskirts with socio-spatial marginalization, and deficient social support from the neighborhood and their families. All of these factors constituted barriers requiring interventions from competent bodies and health professionals to support the elderly women in these conditions, allowing them to develop self-efficacy behaviors for fall prevention.

DISCUSSION

The strategy of NP application in group activities proved to be adequate in the adoption of the HPM as it enhances the role of the elderly in their actions: they talked, discussed, and collectively built fall prevention behaviors.

This model shows the importance of measuring previous behaviors, predisposition to habits, and other personal characteristics to change these old behaviors from that moment on[9]. In the reported falls, some with serious physical and emotional consequences, the elderly women were aware of what they could have done to prevent falls and committed to changing their attitudes and behaviors to reduce the risk of future falls[7].

Regarding the basic dimension of the model, that is, understanding specific factors related to feelings and knowledge of human behaviors, the elderly women felt encouraged to take care of themselves, when they realized that their personal attitudes in the community and family context contributed to this safe behavior[7].

Concerning the self-perception of the benefits of fall prevention, the elderly women realized how harmful and alarming falls and their consequences are, and for this reason, they sought knowledge[7]. Understanding this benefit involves mental representations of positive consequences or reinforcement of a behavior that promotes health, increasing motivation[9].

The challenges and insecurities mentioned by the elderly participants, like physical limitations, economic problems, and lack of family support[7] are, according to the model, obstacles to self-directed action. In the elderly's family and social life, there are many obstacles that put them at risk of falls and, because of this, they cannot avoid this event. Depending on the nature of the situation, it affects the person's safety. In other words, these obstacles are variables directly related to the person's unsafe behavior which, ultimately, can result in falls. Therefore, in this condition, nurses must provide holistic care, promoting care programs and policies for vulnerable populations.

Regarding the "Interpersonal influence affecting the behavior of other people," due to the lack of contact of the elderly with neighbors and family members, their health behaviors had little influence from third parties[7]. In addition, low influence was observed from a "Model of care" for elderly women to use and seek healthier behaviors. In this aspect, nurses should create situations, in their teaching actions, for strategies based on adequate models of self-care.

About the changes the elderly women wanted to adopt to become safer people, they were almost always in situations and contexts that did not favor healthier behaviors. According to Pender et al.[9], people will be attracted to act more competently in situations or contexts they consider safe or where they feel confident. Therefore, nurses should create and provide external interference of intersectoral cooperation, so that people from vulnerable communities can find conditions to promote healthier lifestyles.

In addition, according to the author, the theories and models of health behavior are systematic options that explain why individuals do or do not adopt healthy behaviors and how they manage to change negative behaviors. She emphasizes the importance of understanding behavior change mechanisms and keeping those changes in order to effectively influence health promotion and the prevention of unhealthy events. Analyzing such mechanisms and the variables that influence the intervention process allows nurses to develop and provide care based on a proper theoretical framework. Nurses can promote favorable conditions for change, using the main determinants for behavioral counseling, with a focus on promoting healthy lifestyles[6,9-10].

Study limitation

The authors had difficulties recruiting a higher number of elderly women because of the context of difficult access and the profile of the participants, not always available for extra activities. Likewise, the short duration of the experience did not enable to observe the educational effects of behavioral changes. However, desire and predispositions for changes were observed in the testimonies of the elderly.

Contributions to nursing

Individual experiences with falls and their consequences narrated by every elderly person are essential to be analyzed using dialogues, reflections, and discussions to become an agent of the behavioral change process, that is, by getting involved in an effort to self-organization, proactivity, self-regulation, and self-flexibility, to intentionally influence the functioning and circumstances of their lives, promoting changes in their behavior and self-development. Desire and predisposition for behavioral changes in health of the elderly women were related to their own recent experiences with falls. Such attitudes demonstrated by the elderly were probably due to the educational care practice of nursing, based on horizontal communication, which allowed self-reflections in a group to stimulate personal decision making with a focus on health promotion, reinforcing the relevance of their actions and intentions of self-efficacy behaviors for fall prevention. In addition, the adequate adoption of a theoretical framework by nurses in their practice, in this particular case with elderly women who have fallen and wanted to prevent future falls, favored their analysis of behavior change mechanisms in health and allowed them to influence the relearning process among the elderly seeking to adopt healthier lifestyles.

FINAL CONSIDERATIONS

Risk factors for falls were present among the elderly participants but they had the potential for self-reflection and making a self-directed effort for possible behavioral changes. The desire and predisposition to adopt a healthier lifestyle were certainly stimulated by strategic nursing actions of group work that encourages dialogue and self-reflection, based on the concepts of the Pender's HPM, demonstrating the suitability of this model for educational care interventions with elderly people who are susceptible to falls and who live in a community.

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