



Care process for fall prevention in the elderly: theory of nursing praxis intervention

Processo de cuidado para prevenção de quedas em idosos: teoria de intervenção praxica da enfermagem

Proceso de atención para la prevención de caídas en ancianos: teoría de la intervención praxica de la enfermería

Larissa Padoin Lopes¹

Iara Sescon Nogueira¹

Jhenicy Rubira Dias¹

Vanessa Denardi Antoniassi Baldissera¹

1. Universidade Estadual de Maringá.
Maringá, PR, Brasil.

ABSTRACT

Objective: to analyze the care process for the prevention of falls in the elderly from the theoretical and methodological perspective of the Theory of Nursing Praxis Intervention in Collective Health. **Methods:** this is a descriptive cross-sectional study with a qualitative approach and care-research method carried out with participants of a community group of a Basic Health Unit in Maringá (Paraná State). Data were collected through semi-structured interviews and analyzed using the Theory of Nursing Praxis Intervention in Collective Health. **Results:** data were acquired and interpreted in the structural, particular, and singular dimensions, and consequently, the health assessment was carried out, and the main intrinsic and extrinsic risks for falls among the elderly were identified. The main nursing diagnoses and interventions were listed according to the ICNP/CIPESC. **Conclusion and implications for practice:** it was possible to analyze the care process in preventing falls with the elderly through the theoretical and methodological perspective of the Theory of Nursing Praxis Intervention in Collective Health and propose a nursing intervention plan.

Keywords: Accidental Falls; Nursing Care; Aged; Accident Prevention; Nursing Theory.

RESUMO

Objetivo: analisar o processo de cuidado para prevenção de quedas em idosos na perspectiva teórica e metodológica da Teoria de Intervenção Praxica da Enfermagem em Saúde Coletiva. **Métodos:** estudo transversal descritivo de abordagem qualitativa do tipo pesquisa-cuidado, realizado com participantes de um grupo de convivência de uma Unidade Básica de Saúde em Maringá-PR. Os dados foram coletados a partir de entrevistas semiestruturadas e analisados utilizando a Teoria de Intervenção Praxica da Enfermagem em Saúde Coletiva. **Resultados:** realizou-se a captação e interpretação dos dados nas dimensões estrutural, particular e singular, seguido da avaliação de saúde e identificação dos principais riscos intrínsecos e extrínsecos para quedas dos idosos. Os principais diagnósticos e intervenções de enfermagem foram elencados segundo a CIPE®/CIPESC®. **Conclusões e implicações para prática:** foi possível analisar o processo de cuidado na prevenção de quedas junto aos idosos por meio da perspectiva teórica e metodológica na Teoria de Intervenção Praxica da Enfermagem em Saúde Coletiva, sendo proposto um plano de intervenções de enfermagem.

Palavras-chave: Acidentes por Quedas; Cuidados de Enfermagem; Idoso; Prevenção de Acidentes; Teoria de Enfermagem.

RESUMEN

Objetivo: analizar el proceso de cuidado para la prevención de caídas en ancianos desde la perspectiva teórica y metodológica de la Teoría de la Intervención Praxica de la Enfermería en la Salud Colectiva. **Métodos:** estudio transversal descriptivo de enfoque cualitativo del tipo investigación-cuidado, realizado con participantes de un grupo de convivencia de una Unidad Básica de Salud en Maringá (estado brasileño de Paraná). Los datos fueron recogidos a partir de entrevistas semiestructuradas y analizados utilizando la Teoría de Intervención Praxica de la Enfermería en Salud Colectiva. **Resultados:** se realizó la captación e interpretación de los datos en las dimensiones estructural, particular y singular, seguido de la evaluación de salud e identificación de los principales riesgos intrínsecos y extrínsecos para caídas de ancianos. Los principales diagnósticos e intervenciones de enfermería fueron enumerados según la CIPE/CIPESC. **Conclusión e implicaciones para la práctica:** fue posible analizar el proceso de cuidado en la prevención de caídas junto a los ancianos por medio de la perspectiva teórica y metodológica de la Teoría de la Intervención Praxica de la Enfermería en Salud Colectiva, con una propuesta de un plan de intervenciones de enfermería.

Palabras claves: Accidentes por Caídas; Atención de Enfermería; Anciano; Prevención de Accidentes; Teoría de Enfermería.

Corresponding author:

Larissa Padoin Lopes.
E-mail: laripadoinlopes@gmail.com

Submitted on 07/01/2021.

Accepted on 12/06/2021.

DOI:<https://doi.org/10.1590/2177-9465-EAN-2021-0254>

INTRODUCTION

In the world and also in Brazil, the number of elderly people has been growing at a fast pace, representing 12.5% of the total Brazilian population, and by the year 2050, it may reach an incredible percentage of 30%.¹ This reality implies changes in the epidemiological profile, contributing to more health problems in the elderly, and falls are one of the main threats to their quality of life.¹ It is known that fall accidents affect roughly 32% of the elderly aged between 65 and 74 years and 51% of the elderly over 85 years, and in Brazil, the prevalence of falls in the elderly is 27.6%.^{2,3}

Numerous studies have demonstrated that falls result from an interaction between intrinsic factors (related to the individual) and extrinsic factors (related to the environment). The main risk factors for falls are associated with negative self-assessment of health, low visual acuity, use of polypharmacy, presence of chronic diseases, impairment in performing daily living activities, depression, age equal to or above 80 years, and cognitive deficit.^{2,4}

Although falls in the elderly are considered a public health problem, they are preventable; it is necessary and appropriate to screen the risk of falls in the elderly and evaluate their health.⁵ Hence, the important role of nursing professionals in the Family Health Strategy (FHS) teams in Primary Health Care (PHC) is highlighted, as they seek to identify the risk of falls in the elderly and develop and implement care practices focused on comprehensively preventing falls.⁶

Thus, among the health actions developed in PHC, senior living communities emerge as a scenario for health promotion and prevention of diseases and injuries, as is the case of falls in the elderly. From the perspective of elderly health, senior living communities enhance social interaction, maintain autonomy, and stimulate the collective learning of health-related themes. Therefore, health promotion and fall accident prevention actions among the elderly in senior living communities are extremely relevant.⁷

In this context and considering that the number of falls in the elderly population has been increasing progressively, it is essential to identify and assess the risk of falls in elderly people who attend an elderly social group to implement strategies aimed at fall prevention.⁶ Although the literature shows studies that assess the risk of falls in different health care settings, there is a gap regarding research developed with elderly people who frequent these groups in PHC.⁸

From this perspective, we can highlight some nursing theories, among them, the Theory of Nursing Praxis Intervention in Collective Health (TIPESC), which understands the contradictions of the objective reality of collective health nursing, with historical-dialectical materialism as its philosophical basis. The TIPESC seeks the nursing intervention through a dynamic, dialectical, and participatory method by capturing and interpreting a specific phenomenon related to the health and disease of a given collectivity, the intervention in this reality itself, and the reinterpretation of reality to assess whether it resulted in improvements to the

collective scope,⁹ which is consistent with developing nursing interventions focused on preventing falls in the elderly.

Therefore, in partnership with a PHC health team, researchers sought to develop nursing interventions aimed at elderly people who attend a social group linked to a Basic Health Unit (BHU). Therefore, this research was developed by collaborating with fall prevention practices by identifying and assessing the risk of falls in the elderly, since this collaboration did not depend on previously identifying their risks of falls and health. Given the above, this study aimed to analyze the care process to prevent falls in the elderly from the theoretical and methodological perspective of the Theory of Nursing Praxis Intervention of Collective Health.

METHOD

This was a qualitative study designed using the care research method, which aimed to identify problems, perform nursing diagnoses, and propose nursing interventions to implement and transform nursing care concerning fall prevention in the elderly.¹⁰

The research was conducted from March to August 2020 during the COVID-19 pandemic period in a BHU, located in the city of Maringá, in north-central Paraná State (Brazil), having as target audience 10 elderly women who attend a group of an elderly social group linked to the BHU, called "*De bem com a vida*" [At peace with life]. The target audience was intentionally selected because it considered the bond and the opportunity for a study of this nature.

The inclusion criteria for participation in the study were: 1) to participate in the group called "*De bem com a vida*" regardless of how long they have been participating, and 2) to be 60 years old or older. The exclusion criteria included: 1) not presenting preserved cognitive ability according to the Mini-Mental State Examination (MMSE); 2) not being home or located after five telephone contact attempts at the time of data collection.¹¹ During a meeting of the social group in February 2020, all members were invited to participate. Following the criteria, one woman was not located and was excluded from the study, totaling nine participants.

Trained nursing students performed data collection through semi-structured individual interviews, which were initially carried out with three elderly women through home visits, and after the beginning of the COVID-19 pandemic in Brazil. The interviews lasted an average of 34.49 min and were first audio-recorded using a cell phone recorder to collect data of the home visit. Later, the telephone call recorder application "Call Recorder - Cube ACR" was used to collect data remotely.

The data were transcribed in full by one of the researchers, organized in a Microsoft Excel 2013 spreadsheet, and analyzed using the TIPESC, which comprises five steps in its process, namely: 1) objective reality perception; 2) interpretation of the objective reality; 3) proposal of intervention in the objective reality; 4) intervention in the objective reality and; 5) reinterpretation of the objective reality.⁹ In this study, we only addressed the first three steps of the TIPESC.

In the first stage (objective reality perception), we sought to understand the phenomenon of falls and describe its situation and historicity. For this, we collected data using the following instruments: 1) questionnaire for the evaluation of the risk of falls in the elderly, which is related to functionality, disability, and health of the elderly; 2) the MMSE to evaluate the cognitive function adapted for application by telephone, where the topic of language was excluded and the score was readjusted according to the following score: <16 points for being highly educated, <12 points for not completing elementary school, and <9 points for being illiterate; 3) the Katz Index; 4) the Lawton and Brody Scale; 5) the Environmental Scale of the Risk of Falls and; 6) the Clinical-Functional Vulnerability Index-20 (IVCF-20), considering the importance of assessing the functional capacity and vulnerability of the elderly in screening the risk of falls.^{5,11-14}

In addition to the instruments mentioned above, a questionnaire was also used to characterize the sociodemographic and health of the participants. The questionnaire was prepared by the researchers and consisted of questions on age, gender, education, marital status, occupation, presence of morbidities and chronic diseases, polypharmacy, use of a mobility aid device, physical and social activity, and whether they received any guidance from a health professional about fall prevention and risk.

The second step comprised interpreting the objective reality, in which an approximation of the theories explaining the occurrence of the phenomenon of falls was sought in order to analyze the dialectical contradictions. Thus, the interpretation of the objective reality occurred from the health assessment and intrinsic and extrinsic risks for falls by analyzing the data obtained. The main nursing diagnoses regarding falls were listed according to the International Classification for Nursing Practice (ICNP) and the International Classification of Nursing Practice in Collective Health (CIPESC), which are anchored in the Theory of Basic Human Needs of Wanda de Aguiar Horta.

In the third and last stage (intervention proposal in the objective reality), we sought to create a nursing intervention plan focusing on the primary vulnerabilities related to the risk of falls and recommended according to the nursing interventions according to the CIPESC, which was elaborated from the diagnoses identified in the previous stage.⁹

The research respected the ethical precepts guided by Resolution Nos. 466/2012 and 510/2016 of the National Health Council. The research is part of a larger study and has approval from the Committee on Ethics in Research with Human Beings (opinion no. 1,954,350/2017; CAEE: 37457414.6.0000.0104) and was approved in March 2017.

RESULTS AND DISCUSSION

Objective reality perception

The objective reality perception occurred from the collection of data with the elderly women and allowed us to understand their health conditions and risks for falls, along with identifying nursing diagnoses according to the ICNP and CIPESC. Thus,

the structural dimension was created through the understanding of the local health structure, the singular dimensions from the sociodemographic and health characterization and, the particular dimension from the knowledge and guidance on fall prevention. Such dimensions are presented and detailed below:

Structural dimension

For the structural category, we observed the scenario of this BHU in Maringá, which is integrated into the Elderly Health Care Network. From the organizational point of view, the health system for the qualified care of the elderly Paraná State is guided by the Elderly Health Care Network and the Elderly Health GuideLine.¹⁴

The reality is that falls in the elderly population increase with advancing age and according to the degree of frailty; thus, for the control of this event, the occurrence of falls and gait must be investigated at least once a year, which is consistent with the care practiced by the nurse of the FHS team of the investigated BHU. In addition, when elderly individuals report not having suffered previous falls, the health guideline directs the PHC to develop educational practices focused on fall prevention and main risk factors.¹⁴

In the municipality where the research was carried out, there are 35 BHU.¹⁵ Furthermore, it is known that the municipality has an elderly population growth rate of 4% per year, and falls in the elderly are one of the main problems that increase along with the increase of this population.¹⁶

Regarding the BHU scenario of this research, the unit was opened in 2013 and currently serves ~80,000 people and has an FHS team and two professionals part of the former Expanded Center for Family Health. In addition, there are philanthropic institutions for the support and permanence of the elderly within the area covered by the BHU. Among the services provided by the BHU for the elderly, there is the group “*De bem com a vida*,” in which meetings take place on a weekly basis through social leisure activities along with Health Education activities; meetings are coordinated and executed by professionals of the service in partnership with a public higher education institution.

Particular dimension

Regarding the particular dimension, the sociodemographic and health aspects of the elderly women were evaluated, as well as their participation in the elderly social group and their experiences with the educational activities they had in the group concerning fall prevention.

All the elderly women interviewed have participated in the group for at least a year and reported that they started participating by invitation from someone on the health team or their neighbors, showing that they enjoy participating in the group because they provide a time to learn and create bonds, both with the health team and with other elderly women. Two elderly women participate in other social groups besides the “*De bem com a vida*” group and mentioned social groups in churches. The constant participation of the elderly women in the group is considered an important factor in the theme since it is a tool that increases the quality of

life of the elderly, given that it transforms and builds knowledge through the individuals' participation in educational activities.¹⁷

Regarding the sociodemographic characterization of the participants of the group, all nine elderly individuals were female, aged 61 to 86 years, with an average of 74.66 years. Studies in the literature indicate that the female gender and advancing age are increasing factors for the risk of falls.^{18,19}

Regarding marital status, one elderly woman was divorced, four were married, and four were widowed. For education, four were illiterate and five had an incomplete elementary school education, attending up to the 4th grade. As for their occupation, five were retired, three were housewives, and one was employed. Lastly, religion consisted of four Catholic participants, three Evangelicals, and two Adventists.

The prevalence of elderly women in the research with low education can be considered a risk factor for falls, and according to the literature, low education has a negative influence on the functionality of the elderly; notably, being retired and a widow are also associated with the risk of falls since these factors can be considered limiting and disabling for the elderly.¹⁸⁻²⁰

Regarding self-perception of health, five elderly women had a negative self-assessment of health, considering their health as "regular," and four elderly women evaluated their health positively, with one considering her health as "very good" and the other three as "good." One elderly woman reported having a caregiver, her daughter being the main caregiver. Eight elderly women reported having some chronic disease (depression, hypothyroidism, hypercholesterolemia, hypertension, diabetes, osteoporosis, cataract, anxiety, and/or respiratory problems). Regarding the use of continuous use medications, eight elderly women stated that they use them, and two use polypharmacy. The most cited medications were levothyroxine, simvastatin, clonazepam, losartan, and amlodipine besylate.

Considering that more than half of the elderly women investigated had a negative health self-assessment, studies have shown negative self-perception of health is associated with a greater chance of falls. The negative self-perception, in turn, is associated with sociodemographic indicators, health conditions, decreased functionality, the prevalence of chronic diseases, and not practicing physical activity.^{21,22}

The pathologies related to the cardiovascular system are also considered a significant risk factor for falls. Elderly people with cardiovascular diseases are more likely to suffer falls than those who do not because antihypertensive drugs can increase the risk of falls, since some side effects include postural hypotension, dizziness, and the need to urinate more often.²³ In the present study, five elderly women use antihypertensive drugs, which is considered a risk for falls that need attention.

Nevertheless, one study showed a high prevalence of psychotropic drugs in the elderly, representing 93% of prescriptions, and that patients who use these drugs are seven times more likely to fall.²⁴ Furthermore, the literature states that the use of five or more associated drugs by the elderly can increase the risk of falls, and one study showed that polypharmacy caused

1.5 to 2 times more probability of an elderly person falling. Thus, polypharmacy is a highly relevant factor for the risk of falls, and two of the participants in this research use polypharmacy.²⁵

In addition, five elderly women reported impaired vision, and four of them wear glasses. The literature has demonstrated that lower visual acuity is one of the main factors related to falls at home as it interferes with gait and may increase the risk of falls when accompanied by other sensory pathologies and balance alterations.²⁶

As for their functional capacity, five women were classified as robust and four as at risk of frailty, emphasizing that none were classified as frail. All nine elderly women had preserved cognitive ability according to the MMSE. Regarding cognitive ability, it is worth mentioning that frail elderly people are more likely to fall at home when performing basic activities of daily living (BADL), besides the fact that frail elderly at risk of becoming frail transition to frailty in a short period of 12 months, and frailty becomes a risk for recurrent falls.^{27,28}

One study reported that the risk of falls is higher in the elderly with a cognitive deficit and MMSE score between 24 and 30 points, and this occurs due to poor perception, assessment of environmental hazards, and their own abilities that can cause falls. Another factor that can also cause falls and is related to the cognitive ability of the elderly is depression, a disease that alters the cognitive state, and sometimes there is the need to use medications whose side effects further increase the risk of falls.²

To assess the functional capacity of the elderly in this study, two instruments were used: the first, the Katz Index, which assessed the BADL; the second is the Lawton and Brody Scale, which assessed the instrumental activities of daily living (IADL). All elderly women were classified as independent in both scales according to the scores. The literature shows that the greater the impairment of the elderly in performing their routine activities and eventually dependence on activities of daily living, the greater immobility and consequent muscle atrophy, which may result in new occurrences of falls.¹⁸⁻²²

Concerning guidance on fall prevention, two elderly women reported not having received guidance from a health professional on the subject. The elderly women who received guidance reported that it was a lecture and that it took place in the group, explaining the risk factors for falls and preventive care, as explained in the following excerpts of the elderly women:

I received it [the advice] in the group [...] be careful, don't leave a rug in the middle of the house, don't leave slippers in the middle of the house (E1).

For the person to walk, know how to walk right, and if they slip or have to be treated correctly [...] (E2).

[...] That you can't use the rug [...] preferably be careful and walk with closed shoes, not in slippers (E3).

These orientations reported by the participants corroborate a study that showed that the main falling preventive strategies in the elderly are removing rugs, organizing the furniture in the

home, reviewing the use of medications, glasses for vision correction, among others.²⁹

Singular dimension

Regarding the environmental assessment of the risk of falls, six elderly women reported having unobstructed areas with support bars, even coating on the floor, and firmly-placed rugs. In the lighting factor, nine elderly women reported sufficient lighting to illuminate the entire walking surface inside each room, including steps, sufficient outdoor lighting to illuminate the entire outdoor entrance, and having accessible switches at the entrance of the rooms. Six elderly women have lighting that illuminates the bedroom, hallway, and bathroom, and they also have a bed with indirect lighting.

The nine elderly women have closets with easily accessible hangers, beds of good height, and one of them has a chair in her room that allows her to sit down to get dressed. As for the bathroom, nine elderly women had an easily accessible and firmly-placed toilet, five elderly women had a non-slip shower area, and seven had an easy-opening shower stall and firm curtains. Eight elderly women have accessible closets without needing a ladder, and three have a sink that does not leak and allows the entrance of a wheelchair if necessary.

Furniture that is difficult to access, poorly positioned, or inaccessible can contribute to the increased risk of falls, since the elderly have dangerous habits such as climbing on benches to reach objects, and in addition, the place with the highest prevalence of falling is the bathroom due to the risk factors.^{30,31} All the investigated elderly women of the group do not have an environmental risk factor of falls the difficulty in accessing furniture in their homes.

Four elderly women have stairs in their homes, and among them, one does not have a non-slip coating with markings on the first and last step with a yellow stripe; another participant's home does not have uniform stairsteps, mirror height, and stairstep depth. Two elderly women have bilateral handrails, solid handrails, and handrails that extend beyond the first and last steps, and no elderly woman has a mirror on the closed step with non-slip sandpaper. The risks of falls related to stairs presented by the elderly women in this study corroborate other studies that reported stairs as the least appropriate environment in the home due to, for example, the lack of non-slip floors or bilateral handrails.^{30,32}

In the screening of intrinsic risks for falls,⁵ when investigated what the elderly woman is feeling in the last month, two reported feeling dizziness when standing or walking, two felt weakness throughout their bodies, one had weakness in the whole body, two only felt weakness in the legs, two had trouble walking, and two felt fatigued or exhaustion. A study has shown that one of the factors that lead the elderly to fall was often feeling dizzy, presenting dizziness as a factor for the risk of falls, and as observed in the present study, symptoms of tiredness, exhaustion, weakness, or dizziness were frequent.³¹

Regarding the strength of the elderly women to perform the daily living activities, six said it had decreased in the last year.

Four elderly women believe that their way of walking is slower in the last year compared to the previous year, and no elderly woman requires some kind of support or help to walk. It is also known that there is a greater occurrence of falls in elderly people who have reduced grip strength, reduced walking speed, and exhaustion.⁴

Regarding the practice of physical exercise, five elderly women reported doing some physical activity at least twice a week for at least 30 min. As for the time the elderly woman has been exercising regularly, one reported doing so for one to two years, and the other four reported doing so for two to three years, which is an interesting finding because physical activity contributes significantly to reducing the number of falls in the elderly.³³ Of the participants, six reported that their ability to do daily tasks decreased compared to the previous year.

Regarding weight loss in the last year, two elderly women stated that they had lost weight and that it was more than 3 kg. Weight loss can become a risk for falls in these elderly women since numerous studies have pointed out a higher occurrence of falls in the elderly with weight loss; this is because weight loss is an indication of sarcopenia and one of the factors that can cause frailty in the elderly, consequently increasing the risk of falls.^{4,34}

When the elderly women were asked whether they had already fallen in the last year, two said yes and that they had fallen twice. Of these falls, three occurred on the street and one at home. Regarding the circumstances of the fall, one said she was standing up and lost her balance, and the other said she was walking, misstepped, and fell. Both reported no physical consequences, albeit they are afraid of falling again.

The occurrence of falls found in this work was lower than the findings in other studies in the literature, and regarding the consequences of these falls, the most observed was the fear of falling again, which can result in new falls because fear results in insecurity on the part of the elderly in performing daily activities.²²

Given this scenario, the health assessment, and the intrinsic and extrinsic risks for falls, it was possible to list the changes in some domains according to the ICNP/CIPESC, namely: nutrition, elimination, exercise and physical activity, mobility, perception, environment, safety, and learning. With this, the following nursing diagnoses were identified: weight loss, urinary incontinence, inadequate physical activity, impaired walking, reduced manual dexterity, weakness, impaired memory, risk of domestic accidents, lack of knowledge about fall prevention, and risk of falling.^{35,36}

The relevance of the nursing diagnoses listed for care strategies in community-dwelling elderly patients is in accordance with the literature as studies have demonstrated the importance of using diagnoses derived from the ICNP to identify early on and prevent such problems, resulting in greater resoluteness of the nursing care provided to the elderly.^{37,38} Furthermore, the diagnoses listed in this study are in line with a methodological study conducted in Ceará State that aimed to develop a nomenclature of diagnoses, outcomes, and nursing interventions for elderly people monitored by the FHS.³⁸

Furthermore, a study carried out with 156 elderly people in PHC identified that the diagnosis of risk for falls is related to the intrinsic risk factors of the elderly, which are aged >65 years, cognitive impairment, visual impairment, impaired mobility, impaired balance, and related to extrinsic factors of the elderly, especially the ones related to environmental risks for falls. Thus, it can be seen that the listed diagnoses are in line with the literature and show the main risk factors for falls in the elderly population living in the community.³⁹

INTERVENTION PROPOSAL IN THE OBJECTIVE REALITY

In this last step of the TIPESC, a nursing intervention plan was proposed according to the ICNP/CIPESC and based on the diagnoses listed in the previous step of objective reality perception, as described previously (Chart 1).

The choice of carrying out an intervention based on the ICPN/CIPESC was anchored in the importance of using a

Chart 1. Nursing diagnoses and interventions according to the ICPN and CIPESC.

Nursing diagnosis	Nursing intervention
Losing weight	Assess living conditions and family environment. Provide guidance on nutrition. Investigate individual and family eating habits. Monitor body weight. Promote discussions about the determinants of weight loss.
Urinary incontinence	Schedule medical consultation at the Health Care Unit. Guide on the importance of intimate hygiene. Provide guidance on perineum exercises.
Inadequate physical activity	Encourage physical activity. Encourage walks and short strolls. Advise that lack of exercise is a risk factor for vascular, respiratory, metabolic, bone (osteoporosis), joint (arthrosis), muscle, and intestinal mobility disorders. Try to walk in safe and appropriate places. Promote discussions about the determinants of the lack of physical activity. Go for walks and short strolls. Drink water before, during, and after physical activity.
Hindered walking	Clarify doubts about altered motor activity. Identify triggering factors of altered motor activity. Wear comfortable and well-fitting shoes.
Decreased manual dexterity	Emotionally support the patient in their needs. Assess physical ability. Assess the risk of accidents in the home. Take care when using knives, scissors, pliers, etc. Be careful when handling heated objects (e.g., stove, pots, electric iron, and lamps). Involve family members in making manual activities available to the elderly. Stimulate participation in physical or leisure activities that involve body image. Do exercises with a rubber ball, opening and closing the hands, three times a day, for five minutes. Identify risk situations. Encourage manual activities.
Frailty	Obtain data on attitude towards nutritional status. Investigate the origin of weakness. Schedule medical consultation at the Primary Health Care Unit. Instruct patients to get up when feeling weak.
Impaired memory	Develop activities to reactivate or preserve memory through colorful games, crossword puzzles, bingos with numbers, figures, and colors. Stimulate community bonding. Identify situations that hinder learning. Offer emotional support. Orient the elderly in time and space, keeping a calendar and an easy-to-view clock. Participate in bingo. Check the level of consciousness.
Risk for domestic accidents - elderly	Be aware of slippery floors by removing rugs and/or adapting non-slip flooring. Avoid driving or handling equipment if you feel dizzy. Avoid sudden changes in position, especially when getting out of bed. Avoid taking a bath when the water is overheated. Avoid locking the bathroom door while using the bathroom. Investigate the risks of domestic accidents. Do not get up in the dark. Provide a suitable home environment. Provide grab bars where necessary. Provide non-slip mats in the bathroom/shower stall. Wear comfortable, well-fitting shoes. Use a shower chair.
Lack of knowledge about fall prevention	Provide advice on fall prevention. Provide guidance to the family about fall prevention. Promote activities in the Community Health Centers about fall prevention.
Risk of falls	Preventing falls. Educate patient/family about fall prevention. Use a chair for bathing. Wear comfortable, well-fitting shoes. Avoid using loose rugs in the house. Avoid climbing onto furniture. Explain the importance of sufficient lighting in all environments. Screen for the risk of falls. Provide grab bars where necessary.

Source: the authors, 2020.

standardized language and adding evidence to nursing practice by systematizing the care provided to the elderly in the group based on the holistic concept consistent with the research-care approach; this is because the ICPN/CIPESC has critical characteristics to be applied in the PHC and for nursing professionals.⁴⁰ Hence, based on the proposed diagnoses and interventions, the FHS nurse can provide nursing care focused on preventing falls and consequent injuries, thereby favoring better quality of life for the elderly and emphasizing that nursing care includes interprofessionalism.

The literature shows that the primary interventions for the risk of falls are regular physical exercises that help preserve the mobility of the elderly, the withdrawal of psychotropic medications via medical evaluation and follow-up, and the evaluation and modification of environmental risk factors, thus corroborating the interventions proposed here.^{41,42}

Furthermore, it is essential to emphasize that the problem of falls has been addressed with the elderly participants of the group “*De bem com a vida*” over the years through various activities and projects carried out with the elderly individuals as their adherence is significant. Therefore, from the elaboration of the intervention proposal in the objective reality, a pact was made with the nurse of the investigated unit through dialogue and meetings so that, together with the nurse and other team members, interventions could be implemented with the elderly women.

CONCLUSIONS AND IMPLICATIONS FOR PRACTICE

We analyzed the process of care in preventing falls among the elderly through the theoretical and methodological perspective of the Theory of Nursing Praxis Intervention in Collective Health. By capturing and interpreting the objective reality, several strategies could be drawn for preventing falls in PHC, and we observed that the elderly participants of the elderly-living social group have risks of falls related to intrinsic and extrinsic factors.

Therefore, based on the assessment of the elderly women’s risk of falling, an intervention plan was designed, listing the main nursing diagnoses and interventions according to the ICPN and CIPESC, relating them to the affected domains of nutrition, elimination, exercise, and physical activity, mobility, perception, environment, safety, and learning. Thus, the study contributed to filling the knowledge gap about the most frequent risks of falls in elderly women participating in a social group in the context of PHC, considering its importance in the health of the elderly.

As limitations of this study, one obstacle that stood out was data collection during the COVID-19 pandemic, as the interviews could not be conducted in person since the target population is vulnerable to this disease and their activities of daily living were altered. Therefore, the complete MMSE questionnaire was not applied, which was done by telephone, and there was no face-to-face assessment of the environmental risks of these elderly women’s homes. It is recommended that further studies be carried out on the risk factors for falls in the elderly, allowing the analysis of how the social group interferes in these factors and also in other

realities, as well as the performance of all TIPESC steps, thus evaluating the effectiveness of the proposed intervention plan.

AUTHOR’S CONTRIBUTIONS

Study design. Larissa Padoin Lopes. Iara Sescon Nogueira. Jhenicy Rubira Dias. Vanessa Denardi Antoniassi Baldissera

Data acquisition. Larissa Padoin Lopes. Jhenicy Rubira Dias.

Data analysis and interpretation of the results. Larissa Padoin Lopes. Iara Sescon Nogueira. Jhenicy Rubira Dias. Vanessa Denardi Antoniassi Baldissera

Writing and critical review of the manuscript. Larissa Padoin Lopes. Iara Sescon Nogueira. Jhenicy Rubira Dias. Vanessa Denardi Antoniassi Baldissera

Approval of the final version of the manuscript. Larissa Padoin Lopes. Iara Sescon Nogueira. Jhenicy Rubira Dias. Vanessa Denardi Antoniassi Baldissera

Responsibility for all aspects of the content and integrity of the published article. Larissa Padoin Lopes. Iara Sescon Nogueira. Jhenicy Rubira Dias. Vanessa Denardi Antoniassi Baldissera

ASSOCIATED EDITOR

Cristina Lavareda Baixinho 

SCIENTIFIC EDITOR

Marcelle Miranda da Silva 

REFERENCES

1. Pena SB, Guimarães HCQCP, Lopes JL, Guandalini LS, Taminato M, Barbosa DA et al. Medo de cair e o risco de queda: revisão sistemática e metanálise. *Acta Paul Enferm*. 2019 ago;32(4):456-63. <http://dx.doi.org/10.1590/1982-0194201900062>.
2. Smith AA, Silva AO, Rodrigues RAP, Moreira MASP, Nogueira JA, Tura LFR. Assessment of risk of falls in elderly living at home. *Rev Latino-Am Enfermagem*. 2017;25:e2754. <http://dx.doi.org/10.1590/1518-8345.0671.2754>. PMID:28403333.
3. Chini LT, Pereira DS, Nunes AA. Validação da Ferramenta de Rastreamento de Risco de quedas (FRRISque) em pessoas idosas que vivem na comunidade. *Cien Saude Colet*. 2019;24(8):2845-58. <http://dx.doi.org/10.1590/1413-81232018248.28962017>. PMID:31389533.
4. Ang GC, Low SL, How CH. Approach to falls among the elderly in the community. *Singapore Med J*. 2020;61(3):116-21. <http://dx.doi.org/10.11622/smedj.2020029>. PMID:32488276.
5. Silveira MB, Saldanha RP, Leite JCC, Silva TOFD, Silva T, Filippin LI. Construction and validation of content of one instrument to assess falls in the elderly. *Einstein (Sao Paulo)*. 2018 jun 11;16(2):eAO4154. <http://dx.doi.org/10.1590/s1679-45082018ao4154>. PMID:29898025.
6. Souza AMG, Ferreira TLS, Santos KMR, Oliveira DJD, Andrade FB. Avaliação da assistência à pessoa idosa na atenção primária à saúde: perspectiva de usuários. *Rev Ciênc Plur*. 2017;3(2):42-52. <http://dx.doi.org/10.21680/2446-7286.2017v3n2ID12705>.
7. Araújo LSA, Moreira ACA, Freitas CASL, Silva MAM, Val DA. Idosos e grupos de convivência: motivos para não adesão. *SANARE*. [Internet]. 2017 [citado 2021 jun 9];16(1):58-67. Disponível em: <https://sanare.emnuvens.com.br/sanare/article/view/1140>

8. Guerra HS, Bernardes DCF, Santana JÁ, Barreira LM, Sousa RA, Neves CM. Avaliação do risco de quedas em idosos da comunidade. *Revista Saúde Com.* 2017;13(2):879-86. <http://dx.doi.org/10.22481/rsc.v13i2.434>.
9. Egry EY, Fonseca RMGS, Oliveira MAC, Bertolozzi MR. Nursing in Collective Health: reinterpretation of objective reality by the praxis action. *Rev Bras Enferm.* 2018;71(Suppl 1):758-63. <http://dx.doi.org/10.1590/0034-7167-2017-0677>.
10. Lacerda MR, Giacomozzi CM, Przenyczka RA, Camargo TB. Pesquisa-ação, pesquisa convergente assistencial e pesquisa cuidado no contexto da enfermagem: semelhanças e peculiaridades. *Rev Eletr Enferm.* 2008;10(3):843-8. <http://dx.doi.org/10.5216/ree.v10.46705>.
11. Ministério da Saúde (BR). Departamento de Atenção Básica. *Envelhecimento da pessoa idosa.* Brasília: Ministério da Saúde; 2006. Caderno da atenção básica; 19.
12. Lawton MP, Brody EM. Assessment of the older person: self-maintaining and instrumental activities of daily living. *Gerontologist.* 1969;9(3):179-86. http://dx.doi.org/10.1093/geront/9.3_Part_1.179. PMID:5349366.
13. Moraes EM, Moraes FL. *Avaliação multidimensional do idoso.* 5ª ed. Belo Horizonte (MG): Folium; 2016.
14. Secretaria de Estado da Saúde do Paraná (PR). Superintendência de Atenção à Saúde. *Linha guia da saúde do idoso.* Curitiba: SESA; 2017. 149 p.
15. Secretaria de Estado da Saúde do Paraná (PR). *Plano Estadual de Saúde Paraná 2016-2019.* Curitiba: SESA; 2016. 200 p.
16. Prefeitura Municipal de Maringá (PR). Secretaria Municipal de Saúde de Maringá. Assessoria de Planejamento. *Plano Municipal de Saúde de Maringá-PR, 2018-2021* [Internet]. Maringá: Prefeitura Municipal; 2018 [citado 2021 jun 9]. Disponível em: <http://www2.maringa.pr.gov.br>
17. Ferreira MCG, Tura LFR, Silva RCD, Ferreira MA. Social representations of older adults regarding quality of life. *Rev Bras Enferm.* 2017 jul/ago;70(4):806-13. <http://dx.doi.org/10.1590/0034-7167-2017-0097>. PMID:28793112.
18. Kim T, Choi SD, Xiong S. Epidemiology of fall and its socioeconomic risk factors in community-dwelling Korean elderly. *PLoS One.* 2020;15(6):e0234787. <http://dx.doi.org/10.1371/journal.pone.0234787>. PMID:32559206.
19. Silva FA, Matos MIB, Esteves LSF. Avaliação do risco de quedas em idosos independentes. *Colloq Vitae.* 2017;9(1):18-22. <http://dx.doi.org/10.5747/cv.2017.v09.n1.v184>.
20. Lima AP, Lini EV, Dellani MP, Portella MR, Doring M. Prevalência e fatores associados às quedas em idosos de Estação-RS: estudo transversal de base populacional. *Cad Saúde Coletiva.* 2017;25(4):436-42. <http://dx.doi.org/10.1590/1414-462x201700040271>.
21. Santos EC, Couto BM, Bastone AC. Fatores associados à autoavaliação negativa da saúde em idosos cadastrados nas Unidades Básicas de Saúde. *ABCS Health Sci.* 2018;43(1):47-57. <http://dx.doi.org/10.7322/abcshs.v43i1.999>.
22. De Sousa-Araújo IV, C Gomes N, Santos-Nascimento J, Neves Romanato Ribeiro CC, Dos Santos Tavares DM. Quedas entre idosos: preditores e distribuição espacial. *Rev Salud Publica (Bogota).* 2019;21(2):187-94. <http://dx.doi.org/10.15446/rsap.v21n2.70298>. PMID:33027328.
23. Souza LHR, Brandão JCS, Fernandes AKC, Cardoso BLC. Quedas em idosos e fatores de risco associados. *Rev Aten Saúde.* 2017;15(54):55-60. <http://dx.doi.org/10.13037/ras.vol15n54.4804>.
24. Costa-Dias MJ, Oliveira AS, Martins T, Araújo F, Santos AS, Moreira CN, et al. Medication fall risk in old hospitalized patients: a retrospective study. *Enfermeira Educ hoje.* 2014;34(2):171-6. <http://dx.doi.org/10.1016/j.nedt.2013.05.016>.
25. Ming Y, Zecevic A. Medications & polypharmacy influence on recurrent fallers in community: a systematic review. *Can Geriatr J.* 2018;21(1):14-25. <http://dx.doi.org/10.5770/cgj.21.268>. PMID:29581817.
26. Marinho CL, Nascimento V, Bonadiman BSR, Torres SRF. Causas e consequências de quedas de idoso em domicílio. *Braz. J. Hea. Rev.* 2020;3(3):6880-96. <http://dx.doi.org/10.34119/bjhrv3n3-225>.
27. Miranda DP, Santos TD, Santo FEE, Chibante CLP, Barreto EA. Quedas em idosos em ambiente domiciliar: uma revisão integrativa. *REPID.* [Internet]. 2017; [citado 2021 jun 9];120-9. Disponível em: <https://www.revistaenfermagematual.com.br/index.php/revista/article/view/560>
28. Oliveira CES, Felipe SGB, Silva CRDT, Carvalho DB, Silva-Júnior F, Figueiredo MLF et al. Vulnerabilidade clínico-funcional de idosos em um centro de convivência. *Acta Paul Enferm.* 2020;33:1-8. <http://dx.doi.org/10.37689/acta-ape/2020AO0172>.
29. Queiroz ACCN, Feitosa COPS, Rodrigues GMM, Sousa JC. Intervenções na prevenção de quedas de idosos em ambiente domiciliar. *ReBIS.* [Internet]. 2020 [citado 2021 jun 9];2(4):1-5. Disponível em: <https://revistarebis.rebis.com.br/index.php/rebis/article/view/115>
30. Gonçalves ERS, Gaspar ACM, Vechia ADRD, Azevedo RCS, Reiners AAO. Environmental risk factors, prevalence and consequences of falls in the elderly's home. *Rev Enferm UFPI.* 2020;9:e10458. <http://dx.doi.org/10.26694/reufpi.v9i0.10458>.
31. Teixeira DKS, Andrade LM, Santos JLP, Caires ES. Quedas em pessoas idosas: restrições do ambiente doméstico e perdas funcionais. *Rev Bras Geriatr Gerontol.* 2019;22(3):1-10. <http://dx.doi.org/10.1590/1981-22562019022.180229>.
32. Borges PS, Marinho Fo LEN, Mascarenhas CHM. Correlação entre equilíbrio e ambiente domiciliar como risco de quedas em idosos com acidente vascular encefálico. *Rev Bras Geriatr Gerontol.* 2019;13(1):45-50. <http://dx.doi.org/10.1590/S1809-98232010000100005>.
33. Rodrigues GD, Barbieiro AB, Junior EDA. Prevenção de quedas no idoso: revisão de literatura brasileira. *Rev Bras Prescr Fisiol Exerc.* [Internet]. 2016 [citado 2021 jun 9];10(59):431-7. Disponível em: <https://dialnet.unirioja.es/servlet/articulo?codigo=5587489>
34. Ferreira LMBM, Jerez-Roig J, Andrade FLJP, Oliveira NPD, Araújo JRT, Lima KC. Prevalence of falls and evaluation of mobility among institutionalized elderly persons. *Rev Bras Geriatr Gerontol.* 2016 dez;19(6):995-1003. <http://dx.doi.org/10.1590/1981-22562016019.160034>.
35. Conselho Internacional de Enfermeiros. *Enfermagem Comunitária: Um projeto partilhado com o governo escocês e o Serviço Nacional de Saúde da Escócia.* Catálogo da Classificação Internacional para a Prática de Enfermagem (CIPE®) [Internet]. Lisboa, Portugal: Ordem dos Enfermeiros; 2015 [citado 2021 jun 9]. 56 p. Disponível em: https://www.ordemenfermeiros.pt/arquivo/publicacoes/Documents/CatalogoCIPE_web_julho2015.pdf
36. Albuquerque LM, Cubas MR, organizadores. *Classificação Internacional das Práticas de Enfermagem em Saúde Coletiva* [Internet]. São Paulo: Prefeitura da Cidade de São Paulo; 2005. Consulta de Diagnósticos de Enfermagem. Extraído do livro *CIPESCANDO EM CURITIBA: Construção e implementação da Nomenclatura de Diagnósticos e intervenções de enfermagem na Rede Básica de Saúde* [citado 2021 jun 1]. 65 p. Disponível em: <https://www.ribeiraopreto.sp.gov.br/files/ssaude/pdf/cipesc.pdf>
37. Andrada MMC, França M, Alvarez AM, Hammerschmid KSA. Diagnósticos de enfermagem para idosos internados, segundo a Classificação Internacional das Práticas de Enfermagem. *Rev Rene.* 2015;16(1):97-105. <http://dx.doi.org/10.15253/2175-6783.2015000100013>.
38. Clares JWB, Nóbrega MML, Guedes MVC, Silva LF, Freitas MC. ICNP® nursing diagnoses, outcomes and interventions for community elderly. *Rev Bras Enferm.* 2019;72(Suppl 2):191-8. <http://dx.doi.org/10.1590/0034-7167-2018-0540>. PMID:31826210.

39. Santos PHFD, Stival MM, Lima LR, Santos WS, Volpe CRG, Rehem TCMSB et al. Nursing diagnosis Risk for Falls in the elderly in primary healthcare. *Rev Bras Enferm.* 2020;73(73, Suppl 3):e20180826. <http://dx.doi.org/10.1590/0034-7167-2018-0826>. PMID:32667409.
40. Crivelaro PMD, Fidelis FAM, Siviero MRS, Borges PFB, Gouvêa AHM, Papini SJ. O processo de enfermagem e classificação internacional para a prática de enfermagem (CIPE®): Potencialidades na atenção primária. *Braz J of Dev.* 2020;6(7):54085-101. <http://dx.doi.org/10.34117/bjdv6n7-889>.
41. Tricco AC, Thomas SM, Veroniki AA, Hamid JS, Cogo E, Striffler AC et al. Comparisons of interventions for preventing falls in older adults: a systematic review and meta-analysis. *JAMA.* 2017;318(17):1687-99. <http://dx.doi.org/10.1001/jama.2017.15006>. PMID:29114830.
42. Cheng P, Tan L, Ning P, Li L, Gao Y, Wu Y et al. Comparative effectiveness of published interventions for elderly fall prevention: a systematic review and network meta-analysis. *Int J Environ Res Public Health.* 2018;15(3):1-14. <http://dx.doi.org/10.3390/ijerph15030498>. PMID:29534531.