Original Article
doi: https://doi.org/10.1590/1983-1447.2022.20210145.en

Knowledge and practices of elderly women about fall prevention

Saberes e práticas de mulheres idosas sobre prevenção de quedas

Conocimientos y prácticas de las ancianas sobre la prevención de caídas

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How to cite this article:
Nogueira IS, Dias JR, Lopes LP, Baldissera VDA. Knowledge and practices of elderly women about fall prevention. Rev Gaúcha Enferm. 2022;43:e20210145. doi: https://doi.org/10.1590/1983-1447.2022.20210145.en

ABSTRACT

Objective: Unveil the knowledge and practices of elderly women about the prevention of falls.

Methods: Qualitative, exploratory-descriptive research, developed with eight elderly women from a community group at a Basic Health Unit in the state of Paraná. Data were obtained through individual interviews, submitted to lexicographical analysis through the Descending Hierarchical Classification using the IRaMuTeQ® software, and discussed with the theoretical-analytical framework of Paulo Freire's Praxis.

Results: Six classes emerged: 1. Experiences, background, and practices of Health Education; 2. Advancing age as a factor for the occurrence of falls; 3. Fall prevention practices; 4. Falls and their consequences; 5. Importance of preventive practices; and 6. Environmental and behavioral risk factors in the elderly's home.

Conclusion: Knowledge and practices were learned from experiences, background, and educational practices in Primary Health Care, implemented in praxis and mediated by concrete reality and emancipatory dialogue.

Keywords: Accidental falls. Accident prevention. Health of the elderly. Aged. Primary health care. Public health.

RESUMO

Objetivo: Desvelar os saberes e práticas de mulheres idosas sobre prevenção de quedas.

Métodos: Pesquisa qualitativa, exploratório-descritiva, desenvolvida com oito idosas de um grupo de convivência de uma Unidade Básica de Saúde no estado do Paraná. Os dados foram obtidos por entrevistas individuais, submetidos à análise lexicográfica por meio da Classificação Hierárquica Descendente utilizando o *software* IRaMuTeQ®, e discutidos com o referencial teórico-analítico da Práxis Freiriana.

Resultados: Emergiram seis classes: 1. Vivências, experiências e práticas de Educação em Saúde; 2. O avançar da idade como fator para ocorrência das quedas; 3. Práticas preventivas de quedas; 4. As quedas e suas consequências; 5. Importância das práticas preventivas; e 6. Fatores de risco ambientais e comportamentais no domicílio de idosos.

Conclusão: Os saberes e práticas foram apreendidos a partir de vivências, experiências prévias e práticas educativas na Atenção Primária à Saúde, concretizados na práxis e mediado pela realidade concreta e diálogo emancipador.

Palavras-chave: Acidentes por quedas. Prevenção de acidentes. Saúde do idoso. Idoso. Atenção primária à saúde. Saúde pública.

RESUMEN

Objetivo: Revelar los conocimientos y prácticas de las ancianas sobre prevención de caídas.

Métodos: Investigación cualitativa, exploratoria-descriptiva, desarrollada con ocho ancianas de un grupo comunitario en una Unidad Básica de Salud del estado de Paraná. Los datos fueron obtenidos mediante entrevistas individuales, sometidos a análisis lexicográfico utilizando la Clasificación Jerárquica Descendente del software IRaMuTeQ®, y discutidos con el marco teórico-analítico de la Praxis de Paulo Freire.

Resultados: Surgieron seis clases: 1. Experiencias, vivencias y prácticas de Educación para la Salud; 2. La edad avanzada como factor de ocurrencia de caídas; 3. Prácticas de prevención de caídas; 4. Caídas y sus consecuencias; 5. Importancia de las prácticas preventivas; y 6. Factores de riesgo ambientales y de comportamiento en los hogares de ancianos.

Conclusión: Los conocimientos y prácticas se aprendieron a partir de vivencias, experiencias previas y prácticas educativas en Atención Primaria de Salud, concretadas en la praxis, mediadas por realidad concreta y diálogo emancipatorio.

Palabras clave: Accidentes por caídas. Prevención de accidentes. Salud del anciano. Anciano. Atención primaria de salud. Salud pública.

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INTRODUCTION

The pace of world population aging has accelerated throughout the 21st century and, in Brazil, the projections are not different from the global trend, and the aging process is even faster, related to innovations in medical areas, the decrease in mortality, the reduction in the reproduction rate and the increase in the population's quality of life[1].

This rapid growth of the Brazilian elderly population has brought numerous changes to the public health scenario, causing changes in the epidemiological profile in which health problems and diseases associated with increasing age and physical-functional decline have gained greater notoriety[1–2]. In this context, falls emerge among the most common and disabling diseases faced by the elderly, as they negatively impact their quality of life and bring numerous post-fall consequences, such as loss of functional capacity and autonomy, in addition to causing emotional and social problems[2]. The causes of falls have a multifactorial aspect, and include intrinsic factors, with physiological, pathological, psychological and behavioral aspects, in addition to extrinsic factors, related to the environment in which the elderly person transits[3].

In Brazil, the prevalence of falls among elderly people living in urban areas is high, and it is estimated that approximately 6.2 million elderly people experienced falls in 2016 alone. The prevalence of falls is higher among elderly women, and this number tends to increase every year[4]. Faced with this problem, Primary Health Care (PHC) emerges as an essential scenario for the integral and continuous monitoring of the elderly population, executing health promotion and disease prevention actions, in order to reduce morbidity and mortality rates and guarantee the autonomy and independence of the elderly public[1–2].

When dealing with the prevention of falls in the elderly people, the Health Education practices promoted by PHC professionals are considered an essential strategy to reduce this condition[5]. They are the basis for health promotion and help prevent falls in the elderly by enabling the empowerment of the elderly population through changes in risk behaviors that influence the occurrence of this event[6].

For this, it is important for PHC health professionals to plan and develop educational actions that enable the elderly to qualify the knowledge and practices that permeate the prevention of falls in the elderly, since the preparation and adequate knowledge about the occurrence of falls in the elderly and the necessary attention to the problem can guide more adequate and effective preventive measures[6–7].

Considering that the knowledge of individuals in relation to risk factors related to falls is a necessary condition for the development of preventive actions[8], the health professionals who are part of the PHC teams have the fundamental role of helping the elderly in the problematization of falls[9], inserting the elderly as the protagonist of knowledge, so that they can recognize the risk factors for falls and adapt conditions so that they can be avoided, reinforcing the importance of self-care and transforming knowledge and practices in this context[10].

In view of the above, it became essential to unveil the knowledge and practices of elderly women about fall prevention, in order to develop problematizing and effective educational strategies in PHC aimed at preventing this condition, considering the reality of this population. Thus, this study was guided by the following question: What are the knowledge and practices of elderly women about fall prevention? Therefore, the objective was to unveil the knowledge and practices of elderly women about the prevention of falls.

METHODS

Exploratory-descriptive research with a qualitative approach, with the target audience 10 elderly women attending a community group linked to a Basic Health Unit (BHU) in a municipality in the North Central region of the state of Paraná, Brazil. The BHU is a reference for around eight thousand residents, and its coverage area comprises four neighborhoods. There are, in addition to residences, shops, squares, an Old Age Gym (OAG), schools, municipal early childhood education centers, a hospital and two long-stay institutions for the elderly. The BHU has a Family Health Strategy (FHS) team, consisting of a physician, a nurse, a nursing technician, two Community Health Agents, a dentist, and an oral hygiene technician.

It was a convenience sample, due to the previous partnership of the coexistence group and an extension project in Nursing of a public institution of higher education, of which the researchers are part, in order to collaborate with future educational interventions in health. The group has existed since 2013, and prior to the COVID-19 pandemic period, its activities took place weekly, under the coordination and execution of the BHU health professionals, in partnership with the members of the aforementioned extension project, since 2015.

The study included elderly participants who were enrolled in social activities and had a level of independence. The inclusion criteria were being 60 years of age or older

and being a participant in the community group regardless of the time they participated in it. As exclusion criteria, the following were elected: not having preserved cognitive capacity according to the Brazilian telephone Mini-Mental State Examination (Braztel-MMSE)[11] and not being located after five telephone contact attempts at the time of data collection. During a meeting held in February 2020, all members were invited to participate in the study.

Data collection took place from July to September 2020, based on a semi-structured individual interview via telephone, using a script prepared by the researchers and composed of 20 guiding questions about knowledge and practices on fall prevention, related to knowledge of the frequency of the event in the elderly, severity, causes, consequences, preventive factors, sources of information, previous experiences and background, and the prevention strategies practiced by them, in addition to sociodemographic issues (age, gender, education, marital status, occupation) and health (history of previous fall) for the characterization of participants.

In order to avoid biases, this script of questions was previously adapted by nine judges with knowledge in nursing, health of the elderly, falls in the elderly and/or PHC. They were invited by the researchers to compose the bench of judges considering their expertise, to contribute to the research by adjusting the interview script based on the adequacy of the form, sequence and language used in the questions to be asked in the interviews, in order to cover the phenomenon to be investigated and achieve the proposed objective.

The interviews were conducted by telephone, all of which were audio-recorded using a cell phone application, the Call Recorder®, conducted by a researcher, on previously scheduled days and times and had an average duration of 25.5 minutes. Two elderly women were not located after five attempts at telephone contact. Thus, meeting the inclusion criteria, eight elderly women participated in the research.

For the organization and processing of the data obtained, the calls were transcribed in full and the material was organized into a corpus about the knowledge and preventive practices of falls in the elderly, which was submitted to lexicographical analysis using the software *Interface de R pour Analyses Multidimensionnelles de Textes Et de Questionnaires* - IRaMuTeQ®, through the Descending Hierarchical Classification (DHC)[12].

The lexicographical analysis was presented in a chart format, prepared by the researchers and organized by classes in descending order of Elementary Context Units (ECU), grouped according to groups and sub-groups of the dendrogram generated by the DHC[12]. The classes were meticulously interpreted, analyzed, named, and represented by the ECU - statements of the elderly - that illustrated each class. For the characterization of the elderly, these data were organized in a Microsoft Excel 2010® spreadsheet and analyzed using descriptive statistics.

The findings were discussed with the theoretical-analytical framework of Paulo Freire's Praxis, stating that knowledge and practices about the fall prevention in the elderly occur in the interaction between those involved, from a praxis mediated by concrete reality and emancipatory dialogue[13].

All ethical precepts that rule research with human beings in Brazil were respected, and as this was a larger study, the participants signed the Free and Informed Consent Form in two copies prior to the collection of these data, during a meeting of the community group. The research was approved by the Research Ethics Committee of the *Universidade Estadual de Maringá*, opinion No. 3.593.037/2019 (CAAE: 16810419.0.0000.0104). To ensure the anonymity of the participants, the statements were coded with the acronym "E", referring to the term "Elderly" woman, followed by Arabic numerals that corresponded to the interviews order.

RESULTS

Eight elderly women aged between 61 and 78 years old participated in the research, with an average of 73.12 years old. Regarding marital status, four were widows, three were married and one was divorced. Regarding education, three were not literate and five had incomplete elementary education. Regarding occupation, five were retired, two were housewives, and only one was employed. Seven elderly women reported that they had already experienced fall episodes after old age.

The *corpus* processing identified 9,585 distinct words, distributed in 555 active forms, and divided into 222 ECU, with a total use of 80.73% of the corpus. Six analysis classes originated from the DHC dendrogram. The dendrogram was initially divided into two groups. The first group was divided into two sub-groups: from the first sub-group, class 6 (ECU=23%) was obtained, and the second sub-group generated class 3 (ECU=18.5%) and class 5 (ECU=14%). The second group of the dendrogram was also divided into two sub-groups: the first generated class 1 (ECU=17.1%) and the second sub-group generated class 2 (ECU=13.1%) and class 4 (ECU=14.4%) (Chart 1).

Classes	Nomination	Lexicographic Analysis			
		Words (p <0.0001)*	eff. total**	X^2***	%****
Class 6 23%51 ECU	Environmental and behavioral risk factors in the home of the elderly: scenario for the occurrence of falls	Move up	24	34.83	70.83
		Stairs	11	30.19	90.91
		Smooth	12	26.12	83.33
		Bedroom	7	24.23	100.0
		Non-slip floor	9	23.03	88.89
		Above	9	23.03	88.89
		Chair	20	21.94	65.0
		Inhabit	6	20.68	100.0
		Yard	8	19.53	87.5
		House	57	18.91	43.86
		Clean	7	16.08	85.71
		Wash	7	16.08	85.71
Class 3 18.5%41 ECU	Fall prevention practices: reducing extrinsic and environmental risk factors	Stumble	22	40.08	68.18
		Look	10	26.33	80.0
		Break	20	25.18	60.0
		Place	23	24.67	56.52
		Wet	14	20.83	64.29
		Flip flops	12	19.57	66.67
		Floor	36	19.25	44.44
		Purchase	4	17.98	100.0

Chart 1 – Lexicographic analysis of the classes referring to the knowledge and practices of the elderly about fall prevention, listed according to the DHC dendrogram, in the North Central municipality of the state of Paraná. Paraná, Brazil, 2020

Classes	Nomination	Lexicographic Analysis			
		Words (p <0.0001)*	eff. total**	X^2***	%****
Class 5 14%31 ECU	Falls can be avoided: recognition and importance of preventive practices	Need	25	49.7	60.0
		Hold	8	37.35	87.5
		Pass through	5	31.52	100.0
		Support	5	31.52	100.0
		Walk	42	30.31	40.48
		Give	4	25.1	100.0
		Face	4	25.1	100.0
		Street	14	23.19	57.14
		Wall	3	18.74	100.0
		Bar	3	18.74	100.0
		Hit	10	18.47	60.0
Class 1 17.1%38 ECU	Experiences, background, and practices in Health Education: building knowledge and practices about fall prevention	Learn	20	61.26	80.0
		Community_group	9	45.42	100.0
		Basic_unit	19	31.05	63.16
		Watch	6	29.86	100.0
		Guide	30	26.44	50.0
		Explain	7	23.97	85.71
		Know	29	22.83	48.28
		Prevent	17	22.57	58.82
		Good	12	21.95	66.67
		Talk	15	20.85	60.0
		Meeting	4	19.72	100.0
		Television	4	19.72	100.0
		Teach	4	19.72	100.0
		Help	17	16.65	52.94

Chart 1 – Cont.

Classes	Nomination	Lexicographic Analysis			
		Words (p <0.0001)*	eff. total**	X^2***	%****
Class 4 14.4%32 ECU	Falls - and their consequences - are perceived as one of the main problems for the maintenance of autonomy, independence, and quality of life of the elderly	Tumble	10	36.51	80.0
		Medicine	5	30.37	100.0
		Hurt	7	29.78	85.71
		Day	20	22.56	50.0
		Take	21	20.73	47.62
		Pass	12	19.83	58.33
		Great	3	18.06	100.0
		Hospital	5	17.84	80.0
		Dizziness	13	17.4	53.85
		Take	20	16.67	45.0
		Knee	8	15.55	62.5
		Pain	8	15.55	62.5
Class 2 13.1%29 ECU	Advancing age as a predisposing factor for the occurrence of falls: intrinsic risk factors	Weak	18	99.17	88.89
		Leg	19	79.42	78.95
		Elderly	44	50.7	45.45
		Weakness	5	34.04	100.0
		Age	4	27.11	100.0
		Stay	55	24.89	32.73
		Easy	7	21.68	71.43
		Break	3	20.24	100.0
		Facilitate	3	20.24	100.0
		Seem	5	20.18	80.0
		Difficult	11	17.54	54.55
		Young	6	15.6	66.67

Chart 1 – Cont.

Source: research data (2020). Organized by IRaMuTeQ® software.

* Significance level of word association with class p<0.0001.

** Number of text segments in the *corpus* that contain a given word.

*** X^2 of word association with the class.

**** Percentage of the word occurrence in the text segments of the class.

Environmental and behavioral risk factors in the home of the elderly: scenario for the occurrence of falls

Class 6 (ECU=23%) evidenced the knowledge and practices of the elderly women about the environmental and behavioral risk factors present at home, the scenario for the occurrence of falls. The presence of smooth and slippery floors, stairs, use of rugs and non-skid shoes, as well as risk behaviors related to activities of daily living, were cited as environmental risk factors for falls. The presence of non-slip floor was identified as an ally for the safety of the home environment, acting as a protective tool. According to the elderly women, the presence of environmental risk factors can act to increase the risk of falling, combined with behavioral and organizational factors, as shown in the following ECU:

> *In the laundry room where we wash clothes, the floor is smooth, you must be careful [...] one room has a smooth floor, the other has a non-slip area.* (I3)
>
> *The bathroom here at home also has a non-slip floor so there's no risk of falling because there's nowhere to slide, and I don't climb on the chair and I don't leave anything high, I keep everything low where I can reach it.* (I4)
>
> *The biggest danger you have here at home is that stairs to climb.* (I5)
>
> *There are people who climb on the chair to clean what is at the top and they have to be very careful, don't leave the floor wet, don't leave a rug that slips.* (I2)
>
> *I always wear shoes that don't have a flat sole.* (I6)
>
> *When you're washing a yard, the soap slips a lot, it's a danger.* (I6)

Fall prevention practices: reducing extrinsic and environmental risk factors

Class 3 (ECU=18.5%) corroborated the previous class by exemplifying fall prevention practices and the care taken by the elderly women in recognizing extrinsic and environmental risk factors. The strategies used by them to prevent falls in the home environment were reported, such as drying floors after cleaning, avoiding walking on slippery floors, storing supplies and utensils in easily accessible places, avoiding the use of rugs at home and the use of flip flops, choose to wear shoes with non-slip soles and avoid leaving objects scattered on the floor of the house, avoiding stumbles. Following are the statements:

> *When I clean the floor and it gets a little wet, I let it dry and then I walk.* (I2)
>
> *I've always liked to keep things lower down, in a place where I can reach and catch with my arm.* (I5)
>
> *When the floor is wet, I wear shoes that don't slip, as there are flip flops that slip. I don't step in the wet, I avoid stepping on that place, I walk in another corner.* (I6)
>
> *It is dangerous to fall on the street because it can have a stone, stumble. At home I don't leave anything out of place that could trip over. I take good care of myself.* (I5)
>
> *Those worst rugs, which I walked by, and they were there piled up, we have already removed.* (I4)

Falls can be avoided: recognition and importance of preventive practices

Class 5 (ECU=14%) evidenced the recognition and importance of preventive practices to avoid falls from the perspective of the elderly women, who understand that falls can be avoided. They highlight the need for care and attention when walking, especially in the urban environment, avoiding obstacles and risky behaviors that can cause falls. They also emphasize the use of mobility aids that allow support and greater safety when walking on the streets and sidewalks. In this regard, the elderly women reported:

> *You need to be careful, I already know that [...] Because the elderly, to walk, need to be looking for a place to step on, they must have support, hold on to something.* (I1)
>
> *Falls can be avoided, but we need to be careful, pay attention to what we are doing, where we are stepping. Sidewalks are very bad for walking.* (I5)
>
> *When I leave home, I walk very carefully. When I cross the street, I have to be very careful. [...] To walk we have to be seeing where we are stepping. We can let something that can stumble, hit into something, not hold on and fall.* (I3)
>
> *We have to be more careful and pay more attention when we are walking. You need to pay attention, because if you don't, you can suddenly fall, and paying more attention can improve [...] I also avoid the sidewalks, because they are full of holes, full of danger.* (I2)

Experiences, background, and practices in Health Education: building knowledge and practices about fall prevention

Class 1 (ECU=17.1%) clarified that the elderly women's knowledge about fall prevention was learned from previous experiences, through information received by the media, and the development of Education practices in Health at the BHU, offered to the elderly people by the health team and occurred during the meetings of the community group - highlighted as a place of great learning -, through lectures, guidance and sharing of knowledge and practices between professionals and users. Following are the reports:

Talking to the basic unit staff, health professionals, can help prevent falls. Because we learn, we see and we already know that it is dangerous and we are already more careful, we learned. (I2)

We see people, like you professionals in the basic unit, I had classes, guided, talked about many things, and we learned many things [...] we learned from seeing professionals teaching us. (I6)

The information about falls I learned from experience. (I2)

I learned at the basic unit. The doctor and the nurse always lectured to us. [...] I learned a lot in the community group. (I6)

I learned because I see about falls, I see many people guide, I listen. I have already fallen, my mother has already fallen, I have already fallen, a friend of mine has already fallen. The professionals at the basic unit advise on falls, on how to be careful not to fall. (I7)

We see guidance on television and in many community group meetings. (I3)

Falls - and their consequences - are perceived as one of the main problems for the maintenance of autonomy, independence, and quality of life of the elderly

Class 4 (ECU=14.4%) showed that the elderly women understand the negative consequences of falls for the maintenance of the elderly person's autonomy, independence, and quality of life, based on previous falls and the experiences of friends and/or family members. In their reports, they point out physical injuries, wounds, fractures, immobility, disabilities, hospitalization, and death as a result of falls, and therefore, highlight the importance of prevention and care. Following are the ECU:

The consequences are all bad. The person can die like my grandmother died, my stepfather also died due to a fall. You can stay in bed without being able to walk, you can break a leg and your spine, it only brings suffering. (I6)

I have already fallen. The elderly person needs to be very careful, because after he/she falls and goes to the hospital, stays in bed and can't walk anymore. (I3)

My stepfather died, he fell and broke the bone, the femur. He went to bed and didn't walk anymore. They took care of him until the day he died. I already have several fall experiences. (I6)

My husband went for a walk and took two tumbles, fell twice. He must have tripped, he took such a big fall that he hurt his face, poor thing. He was bleeding, broke his prosthesis in his mouth. (I7)

You can break an arm, a leg, or a rib, and then poof, died. (I5)

Advancing age as a predisposing factor for the occurrence of falls: intrinsic risk factors

Class 2 (ECU=13.1%) portrayed that the elderly women recognize the episodes of falls as a common and frequent aggravation in old age, resulting from and facilitated by the senescent and pathological aging process. Finally, they relate falls to the presence of intrinsic risk factors, such as weakness, chronic diseases, visual and cognitive deficits, sometimes attributing frailty to the elderly and limitations brought by advancing age, which contribute to the occurrence of falls, as exposed in the following ECU:

Weakness too, sometimes he has a weak leg, and anything stumbles. There are elderly people who cannot lift their toes and stumble, everything makes them fall. (I1)

The elderly don't have that skill that the young have, it's easier to fall. The legs are also weaker, the mind is also weaker. It's a lot of things that help, help get in the way and cause a fall. (I6)

When a person is old aged, elderly, and not in good health, it is easier to fall. Because the elderly person is getting weaker, the legs can go tremble. (I3)

There are some elderly people who get weaker. There are some elderly people who do not see well, it contributes a lot to a fall if the person is weak and does not see well, there are many elderly people with cataracts and other diseases. (I8)

We elderly can fall, every day the elderly person becomes weak, with little strength. (I2)

DISCUSSION

In general, the elderly women participants in the study, almost in their entirety, reported episodes of previous falls after old age and know close elderly people or family members who were also victims of this condition. Previous experiences result in greater knowledge about the severity and risk factors associated with the occurrence of falls, as well as expanding knowledge about preventive practices and the negative consequences for the health of the elderly, as observed in the present study. It is important to point out that the experience of this condition, that is, the experience of falling adds knowledge on the subject[8].

Thus, the knowledge and practices of elderly women on fall prevention assumed different meanings that permeated extrinsic risk factors - environmental and behavioral - and intrinsic risk factors, in addition to the recognition of prevention, the negative consequences of post-falls for health of the elderly population, and also their vulnerability to this condition. That said, it was evident that the knowledge and practices on this subject were related to learning from experiences and background, as well as mediated by the emancipatory dialogue between health professionals, elderly people, friends and/or family members, enabling action-reflection-action and benefiting the process of building knowledge and transforming preventive practices, favored by the reality of concrete life[13–14].

Regarding this, Class 6 outlined the knowledge and practices of the elderly women about environmental risk factors for falls, in addition to protective factors, such as the presence of non-slip floor in the home environment. It was observed that learning about the subject of falls is based on real problem-situations and the result of the lived experience, by themselves or by someone close, family, friends and/or neighbors[13]. In view of this, the experiences led to reflection and awareness about falls, so that it generated changes in practice, such as changing risk behaviors, and not performing actions, such as avoiding climbing on chairs, walking on slippery floors and using inappropriate shoes, therefore, action-reflection-action[13].

Accidents by falls involving extrinsic risk factors are often related to the occurrence of a single episode of fall. After the fall, the risk factor that led to the injury is identified, and thus, similar risk habits and practices are often extinct[3]. In this sense, the importance of reflection about the action performed is highlighted, so that such a positioning, of reflecting and rethinking the event, allows the transformation of actions, and in the context of falls in the elderly, allows the prevention of future episodes, from changes in the daily life of modifiable risk factors, implementing the praxis[13–14].

Still about the extrinsic factors related to the risk of falls, a study analyzed the environmental risks found in the home of the elderly attended by the FHS team and identified that the most frequent risks were found in the bathroom, on the stairs and also related to lighting - also mentioned by the elderly women in the present research - noting the importance of environmental assessment conducted by health professionals in PHC to assist in the identification of modifiable risk factors in the home of the elderly[15].

Regarding the preventive practices in the home environment evidenced in Class 3, it is known that they help to prevent falls in the elderly, since changes in behavior and adoption of measures aimed at reducing risks are intertwined with the reduction in the impacts caused by this condition, in addition to being associated with a decrease in hospitalizations and deaths in the elderly[8]. Therefore, it is possible to affirm that the modifications in the home environment practiced by the elderly present themselves as a strong strategy to prevent falls.

Such actions were manifested by changes at home, such as removing rugs and changing furniture, in addition to avoiding risky behaviors, such as walking on slippery floors, climbing on chairs and wearing inappropriate shoes, paying greater attention to other risks present at home and acting as a beneficial tool for the safety of the elderly, valuing preventive practices whose main focus is the adequacy of the environment[15].

Routinely, the preventive measures practiced by the elderly are related to previous experiences and the triggering factor that previously led them to fall, in line with praxis[10,13–14]. Despite this, a research showed that after the fall, 40% of the elderly who fell in their homes did not make any environmental changes in the place, being an aggravating factor for new falls related to economic and social limitations, seen as obstacles to the adoption of preventive practices and environmental modifications[16].

In this way, Class 5 stated that the elderly women in the study recognize that falls can be avoided, also highlighting, as one of the preventive strategies used by them, care, and attention when walking, especially in the urban environment. Such measures are consistent when considering that 50% of Brazilian elderly people living in urban areas are afraid of crossing the streets and of falling due to pavement defects, and these risk factors are present in urban spaces and are associated with the occurrence of falls[4].

In this logic, the practice of self-care and the act of recognizing the risks and forms of prevention are presented as beneficial and protective factors, that is, as the elderly person recognizes that the fall can be prevented, increases the chances of the same to adopt preventive behaviors and strategies[8]. Such fact has relation with critical disclosure, as it allows the elderly to unveil the existing contradictions in the context of falls and reflect on their own reality, driving the transformation and adoption of preventive practices in the face of experiences and reflections through the actions performed[13].

Thus, knowing that the episode of the fall is a condition that can be prevented, Class 1 discussed the means for building knowledge and practices, pointing out the learning from experiences, background, and arising from the dialogue that emancipates, evidencing the contributions from PHC on the fall prevention in the elderly, based on the development of Health Education practices. In this direction, PHC presented itself as an educational scenario for the dissemination of knowledge about preventive practices, favoring dialogue and the development of care, which have repercussions on reducing risk factors for falls[5].

In this context, a study pointed out that Health Education practices on fall prevention conducted in PHC by health professionals are developed through guidelines, based on dialogue with the elderly during the development of operative groups, events, health care, training, and in the home visit, as also reported by the elderly women in the present study[5]. Such practices enable the empowerment of the elderly and obtain knowledge about fall prevention and their main risk factors, deconstructing knowledge, transforming preventive practices and establishing habits that culminate in the maintenance of independence and autonomy of the elderly, also contributing to an active and healthy aging[2,5].

It is noteworthy, therefore, that the elderly women do not present themselves only as listeners, but as part of the educational process, allowing emancipatory and liberating learning, resulting in the transformation of their own reality, using the concepts learned in the different educational moments experienced[13,17]. In this direction, dialogue is presented as a social practice and essential tool for action-reflection-action, beneficial for the teaching-learning process, thus allowing the transformation of knowledge and consequent changes in habits[18], as has been learned in this research.

Therefore, it is essential that health professionals are aware of the importance of these educational practices in order to develop them, helping the elderly in the problematization of falls as mediators of this educational process[9]. Therefore, and for educational actions to be effective - concretizing praxis -, it is essential that they anchor their practices in dialogicity, permeating a horizontalized, emancipatory and humanized education[13,17]. Added to this, it is necessary to equip health professionals to work on the theme of falls, with continuing education being relevant for all those who develop care and educational actions[19].

The negative consequences of falls for the health of the elderly were recognized by the participants in Class 4, and were manifested by physical injuries, hospitalizations, and death. Corroborating this, a study pointed out that the consequences after falls can interfere negatively in the most varied aspects, bringing from negative consequences to the physical, such as decreased functional capacity and restriction of basic activities of daily living, but also consequences at the psychological level, such as changes in behavior and fear of experiencing new falls[16,20].

After the occurrence of falls, changes were observed in the behavior of the elderly, based on the clarity about the risk factors, enabling preventive care[20] and referring to the preventive practices practiced by them. Given the great impact that falls can have on the health of the elderly, it is critically thinking that preventive practices can be improved, based on the elderly women's awareness of this condition - as observed in Class 4 -, which reinforces the need to problematize the reality[13–14].

The act of reflecting about the different risk factors and the different consequences allows the elderly to problematize what happened, and thus, identify and reflect on what caused the fall, the place of the episode, the characteristics, and what can be done to prevent future falls, so the consequences can be mitigated or eliminated. In this way, the dialogue between health professionals and the elderly is an important tool, as it allows the problematization of the concrete reality and the overcoming of existing contradictions, empowering the elderly people, promoting emancipation, protagonism, and autonomy[13].

Finally, Class 2 made explicit that the elderly women in the study blame the episodes of falls in old age for intrinsic factors caused by the senescent and also pathological aging process, reducing falls in old age as a frequent and common event, demonstrating the naturalization of the condition and contradicting the results of a research that identified that the elderly still do not perceive themselves as being vulnerable to falls[10]. In another study, the naturalization of the phenomenon of falls was also observed, and the fall gains greater notoriety on the part of the elderly people when there is a worsening of the consequences, such as the need for hospitalization and surgery[19].

The physiological and pathological changes resulting from the aging process culminate in a certain limitation and degree of vulnerability of the elderly, making them

more susceptible to the occurrence of fall[20]. It is noteworthy that the recurrence of the fall episode, for the most part, is associated with the individual's own intrinsic factors, which are sometimes consequences of advancing age[3].

On the other hand, it is very important to point out that falls in the elderly are caused by the interaction of multiple causes, so, even though aging implies greater chances of falling, it is incorrect to link the occurrence of falls to this factor alone[4]. Therefore, it is necessary to deconstruct this knowledge recognized by the elderly women, which reinforces and normalizes falls as a natural condition of old age, which, although frequent, is not determinant, making it possible to get old without falling, overcoming this limit situation[13] that challenge them daily. Consequently, it will be possible to encourage the elderly women to perceive themselves as authors of their life stories, conscious and empowered to change their practices, transforming knowledge and actually preventing falls.

CONCLUSION

It was possible to unveil the knowledge and practices of elderly women on the fall prevention and to point out that they understand the main extrinsic and intrinsic risk factors for falls, carrying out strategies to prevent falls in the home and urban environment and recognizing that falls can be avoided, although this is an evident limit situation. In addition, they identify the negative consequences that the occurrence of this condition can bring to the health of the elderly. Finally, knowledge and practices were related and were learned from experiences, background and educational practices developed in PHC, implemented in praxis, and mediated by concrete reality and emancipatory dialogue.

The present research contributes for building knowledge about fall prevention in the elderly, sensitizing and supporting PHC health professionals - including nurses - to conduct and implement problematizing educational strategies considering the reality of life of the elderly population, an important tool for the transformation of knowledge and practices, which can collaborate with the reduction of falls in the elderly.

As a limitation of this research, it is noteworthy that it reflects the reality of a specific group of elderly women who are part of a community group that has already been developing educational activities, which may have influenced their perceptions. It is suggested the development of even more intensified Health Education practices, based on dialogue and awareness to deal with the reality of everyday life of the elderly, considering their knowledge and practices that permeate fall prevention, in order to enable the unveiling and the identification of intervention possibilities, through an action-reflection-action process.

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Acknowledgments:
To the Coordination for the Improvement of Higher Education Personnel (*Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* - CAPES) Funding Code 001, for the doctoral scholarship granted to Iara Escon Nogueira.

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The authors declare that there is no conflict of interest.

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Associate editor:
Carlise Rigon Dalla Nora

Received: 06.04.2021
Approved: 10.08.2021

Editor-in-chief:
Maria da Graça Oliveira Crossetti