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Original

Domestic risks: environmental analyses carried out with elderly people and primary health care nurses

Riscos domiciliares: análises ambientais realizadas com pessoas idosas e enfermeiros da atenção primária à saúde

Riesgos domésticos: análisis ambientales realizados con personas mayores y enfermeros de la atención primaria de salud

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Abstract

Objective: To analyze the risks present in the home environment of elderly people. **Methods:** Exploratory-descriptive study with a qualitative approach, developed in the Primary Health Care municipal network of Boa Vista - Roraima. The social group involved in this investigation consisted of 22 participants, divided into two subgroups: 11 elderly people and 11 nurses who accompany the selected elderly in their homes. Semi-structured interviews were carried out and the findings were analyzed according to the theoretical-analytical framework of Laurence Bardin's content. **Results:** The current risks in the home environment of elderly people were organized into three major categorical dimensions: behavioral, biological and physical. In this sense, actions such as cleaning, washing, cooking, the ineffective use of medication, inappropriate eating habits, diagnosis of chronic diseases, decline in physiological functions, misaligned toilets, objects on the floor, use of rugs, smooth, broken and wet floors, they were considered risk-inducing elements to the health of the elderly person in their home. **Conclusion:** The triad of behavior, biology and environment represented a key-complex for thinking about the risks that influence the health-disease process of elderly people living at home based on Nightingale's analyses.

Descriptors: Home Environment; Primary Health Care; Fall Accidents; Health Vulnerability; Geriatric Nursing.

Whats is already known on this?
The current literature presents, in the context of primary health care, home risks of a physical, biological, chemical nature and human interactions that cause harm to the elderly.

What this study adds?
The study analyzes and theorizes elements that induce environmental risks that interfere in the health-disease process of elderly people living at home based on three dimensions, namely: behavioral, biological and physical.

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Resumo

Objetivo: *Analisar os riscos presentes no ambiente domiciliar das pessoas idosas.* ***Métodos:*** *Estudo exploratório-descritivo de abordagem qualitativa, desenvolvido na rede municipal de Atenção Primária à Saúde de Boa Vista - Roraima. O grupo social envolvido nesta investigação foi constituído por 22 participantes, distribuídos em dois subgrupos: 11 pessoas idosas e 11 enfermeiros que acompanham os idosos selecionados em seu domicílio. Foram realizadas entrevistas semiestruturadas e os achados foram analisados segundo o referencial teórico-analítico de conteúdo de Laurence Bardin.* ***Resultados:*** *Os riscos presentes no ambiente domiciliar das pessoas idosas foram organizados em três grandes dimensões categóricas: comportamentais, biológicas e físicos. Nesse sentido, ações como limpar, lavar, cozinhar, o uso ineficaz de medicamentos, hábitos alimentares inapropriados, diagnóstico de doenças crônicas, declínio das funções fisiológicas, vasos sanitários desalinhados, objetos no chão, uso de tapetes, piso liso, quebrado e molhado, foram considerados elementos indutores de risco à saúde da pessoa idosa em seu lar.* ***Conclusão:*** *A tríade comportamento, biologia e ambiente representou um complexo-chave para pensar os riscos que influenciam o processo saúde-doença das pessoas idosas domiciliadas a partir de análises nightingaleanas.*

Descritores: *Ambiente Domiciliar; Atenção Primária à Saúde; Acidentes por Quedas; Vulnerabilidade em Saúde; Enfermagem Geriátrica.*

Resumén

Objetivo: *Analizar los riesgos presentes en el ambiente domiciliario de las personas mayores.* ***Métodos:*** *Estudio exploratorio-descriptivo con abordaje cualitativo, desarrollado en la red municipal de Atención Primaria de Salud de Boa Vista - Roraima. El grupo social involucrado en esta investigación estuvo compuesto por 22 participantes, divididos en dos subgrupos: 11 personas mayores y 11 enfermeros que acompañan estos pacientes seleccionados en sus domicilios. Se realizaron entrevistas semiestructuradas y se analizaron los hallazgos según el marco teórico-analítico de contenido de Laurence Bardin.* ***Resultados:*** *Los riesgos presentes en el ambiente domiciliario de las personas mayores fueron organizados en tres grandes dimensiones categóricas: comportamentales, biológicas y físicas. En este sentido, acciones como limpiar, lavar, cocinar, el uso ineficaz de medicamentos, hábitos alimenticios inadecuados, diagnóstico de enfermedades crónicas, disminución de funciones fisiológicas, sanitarios desalineados, objetos en el piso, uso de alfombras, pisos lisos, rotos y mojados, fueron considerados elementos inductores de riesgo para la salud de los mayores en su domicilio.* ***Conclusión:*** *La tríada de comportamiento, biología y ambiente representó un complejo clave para pensar los riesgos que influyen en el proceso salud-enfermedad de las personas mayores que viven en el hogar a partir de los análisis de Nightingale.*

Descriptores*: Ambiente en el Hogar; Atención Primaria de Salud; Accidentes por Caídas; Vulnerabilidad en Salud; Enfermería Geriátrica.*

INTRODUCTION

The influence that the environment exerts on individuals was carefully observed and described by Florence Nightingale, founder of Modern Nursing. The appropriation of concepts related to the environment is inherent to the holistic critical thinking that Fundamental Nursing is responsible for professional ethics, observation, creativity and, mainly, environmental analyses during care practices.[1,2]

It is said that Nightingale's notes guides all nurses regarding environmental aspects when it says that nursing, in the development of its care actions, should mean the use of pure air, silence, heating, lighting, cleaning and adequate selection of both the diet and the way of serving it.[3]

Nightingale's notes, however, were not limited to providing a healthy environment only to hospitals. They contain definitions about the environment as a place where the patient and/or family members are, in an interrelationship of physical, social and psychological components. In this perspective, methods and guidelines are applied to people in their homes with the aim of creating and maintaining environments favorable to health.[4]

It is known that the home environment is one of the places where individuals spend most of their time. In view of this, it is essential to adopt good health practices within the home, in order to minimize potential health risks, thus ensuring a healthy home that allows the elderly person to experience active aging.[5] In addition to practices in health, as predictors of well-being, other determinants are essential to healthy aging, namely: adoption of healthy habits and behaviors, such as self-responsibility, feelings of optimism and happiness, faith and religiosity, reciprocity in social support and ability to live with autonomy and independence.[6]

In this regard, it is pertinent to point out that environmental, behavioral, sociocultural, economic and political conditions interact with the biological processes of human beings throughout life. Therefore, the vulnerability of the elderly is conditioned by multivariate elements that may or may not be correlated, among which stand out: biological aging, health decline, inefficiency of health services, frequent hospitalizations, inadequate social networks and the environments where they live.[7]

Under these conditions, the role of nurses in the home environment provides opportunities for patient and family interaction in a profound and unique way. The nurse's role as an educator is reinforced when disseminating scientific knowledge combined with popular knowledge, encouraging the participation of the family regarding the possible health risks that their home can generate for the elderly.

Added to this, the provision of individualized care to the elderly encourages them to assume an active role in the care process, strengthening their autonomy and self-care. In this way, reflections and new healthy lifestyle habits are promoted in favor of active aging, reaffirming nursing as a science.[8]

Thus, in addressing the risks present in the home environment, it becomes evident a knowledge gap which is represented by the lack of studies involving elderly people and nurses working in Primary Health Care. This is because the national literature currently presents, from Nightingale's perspective, a vast scientific production on the subject of risks directed towards long-term care facilities for the elderly.[9]

Given the above, the following guiding question for this study emerges: what are the risks present in the home environment of elderly people?

This contextual problem configures the following objective of this investigation: to analyze the risks present in the home environment of the elderly.

METHODS

This is an exploratory-descriptive study with a qualitative approach. The investigation was carried out in the municipal network of Primary Health Care in Boa Vista, capital of the state of Roraima. The network is organized into eight macro areas, where 60 Family Health Strategy (FHS) teams work, distributed across 34 basic health units (BHU). Areas that had BHU intended for the exclusive care of patients with a suspected or mild case of COVID-19 were excluded from this investigation. Thus, eleven BHU were selected for convenience, considering the participants' acceptance to the study.

After the inclusion of each BHU, contact with the active multidisciplinary team was made, especially with the nurses, as they were the facilitators to reach the elderly. Therefore, the social group involved in this investigation consisted of 22 participants divided into two subgroups: eleven nurses and eleven elderly people accompanied by them at home, with the aim of analyzing different perspectives of environmental risks. All study participants were selected for convenience and the elderly population, indicated by the BHU's nurse.

The selection of elderly people complied with the following inclusion criteria: age 60 years or older; with analysis of the cognitive state carried out from the clinical practice of the BHU's nurses; and who resided in houses formally registered with the BHU responsible for covering the assigned area of the household. The selection of nurses complied with the following inclusion criteria: working at the BHU for at least six months; and having carried out at least one home visit to the elderly person's residence.

With regard to the exclusion criteria for elderly people, the following did not participate in the investigation: those who were alone at home at the time of the visit for data collection; with no reception in three collection attempts at the home of the elderly person indicated by the nurse; elderly people of Venezuelan nationality, because of the constant change of residential address. As for nurses, the following were excluded from the investigation: professionals who did not have some type of specialization; field nurse teachers of mandatory supervised training; and nurses of other nationalities.

Data production was carried out in the second half of 2021, based on a semi-structured interview script applied in two moments by a single researcher who has no direct relationship with the study participants. Firstly, previously selected elderly people were interviewed; then, the respective nurse responsible for taking care of the elderly person at home. Collections with the elderly took place in their own homes; with the nurses, in the respective BHU where they work. All collections had the presence of non-participants, such as family members, caregivers and health professionals.

It should also be noted that the questions present in the data collection instrument were not screened for validation by a pilot test and the discontinuity of the collection occurred due to the repetition of the primary themes in all interviews. The procedure used to register the information was the recording using an electronic device with an MP3 Player and subsequent manual transcription of the audios, totaling 18 hours and 50 minutes, distributed over 5 hours and 20 minutes for the elderly and 13 hours and 30 minutes in the nurses' consolidation.

The transcribed raw data were returned to the study participants and the analysis process was performed manually, by two researchers, in the light of the theoretical-analytical framework of content provided by Laurence Bardin.[10] This analysis proposal is organized around three chronological phases: 1) pre-analysis; 2) exploration of the material; and finally, 3) treatment of results. For organizational purposes, the findings were categorized into three dimensions, namely: behavioral, biological and physical. All showed similarities in terms of the content of the elderly person and the respective nurse responsible for taking care of them in the home environment.

From an ethical point of view, the study was approved by the Research Ethics Committee, under opinion numbers 4,054,281 and 4,701,055, linked to the investigative projects entitled "Care performed for the elderly in the home space and in primary care: thinking about systematization of nursing care" and "Tracking of managerial, care and educational knowledge and practices in the context of primary health care", respectively. All data production was preceded by the signing of a Term of Free and Informed Consent and a Term of Authorization for Voice Recording, in which the interviewees agreed to participate in the investigation without any kind of burden or reprisals. It should be noted that the anonymity of the participants in this investigation was maintained by replacing the names with the identifying words "Elderly Person" and "Nurse", followed by a sequential ordinal number related to the order in which the interviews took place.

Thus, the study complied with the guidelines provided for in Resolution 466/2012 of the National Health Council and was guided by the consolidated criteria for qualitative research reports listed in the Consolidated Criteria for Reporting Qualitative Research (COREQ) transparency instrument.[11]

RESULTS

The risks analyzed in the interviews that are present in the home environment of the elderly people were organized into three categorical dimensions: behavioral, biological and physical. For the behavioral dimension, domestic activities, lack of knowledge about diet and the use of medication were pointed out. For illustrative purposes, the following are some paired representative testimonies related to these risks:

> "I don't wax [burnt cement floor], I just wash it properly with soap. I do it, I make the food myself and I've already burned myself [...]" (Elderly Person 02)

> "[...] she [Elderly Person] does things [domestic activities], but we [health professionals] observe that it is difficult [...] so, the kitchen is where there are more risks for accidents" (Nurse 02)

> "[...] I [Elderly Person] prepare my food myself, sweep the house and take care of things [...]" (Elderly Person 03)

> "[...] I already told her [Elderly Person] to move the home furniture closer together and to stop walking barefoot, but there's no way" (Nurse 03)

> "[...] I eat anything, what I know is bad for me, but I eat it" (Elderly Person 04)

> "[...] she [Elderly Person] is a person who cooks a lot and I can't see that she is very careful with that, with the diet" (Nurse 04)

> "I take my medicine, but sometimes I forget [...]" (Elderly Person 07)

> "[...] He forgets to take the medicine. He [Elderly Person] takes the wrong medicine [...]" (Nurse 07)

With regard to the second dimension, related to biological risks, the following content units were analyzed: senility and senescence. These analyses can be evidenced in the illustrative statements presented below:

> "[...] diabetes goes up if I eat a lot of sugar [...]" (Elderly Person 01)

> "[...] she [Elderly Person] is a diabetic patient [...]" (Nurse 01)

> "[...] my blood pressure medication [...] I have high blood pressure" (Elderly Person 06)

> "[...] she [Elderly Person] has comorbidities, Systemic Arterial Hypertension [...]" (Nurse 06)

> "[...] I have high blood pressure and blood sugar, I take my medicine, but I like a little salt [...]" (Elderly Person 16)

> "[...] I advise about the risks related to ineffective eating, she [Elderly Person] has hypertensive crises and comes running after us [...]" (Nurse 16)
>
> "I only have hand tremors" (Elderly Person 10)
>
> "[...] she [Elderly Person] is diagnosed with Parkinson's disease and has difficulties doing things [...] she does not have manual dexterity [...]" (Nurse 10)
>
> "[...] I can't see anything well and I already fell at home" (Elderly Person 11)
>
> "[...] he [Elderly Person] has blurred vision. The risk of him slipping and falling is very high" (Nurse 11)
>
> "[...] I have a problem with dizziness, wherever I am, or however I am, I already cling to the furniture in the house [...]" (Elderly Person 18)
>
> "She runs the risk of, for example, spilling [nurse indicating an episode of vertigo] hot water in the kitchen while making coffee [...]" (Nurse 18)

Finally, in the sequence of presenting the results, illustrative testimonies related to the dimension of physical risks are shown, where physical elements inside the home were analyzed, as follows:

> "[...] a fall, tripping over something and slipping [...] the mats, I don't step on them" (Elderly Person 05)
>
> "[...] because he [Elderly Person] can slip and a fall is very serious for an elderly person, for recovery. I tell him not to put a rug, avoid the little rugs in the middle of the house [...]" (Nurse 05)
>
> "It has already happened that I fell in the bathroom because of the floor [...]" (Elderly Person 08)
>
> "[...] the risk of slipping when taking a bath [nurse indicates slippery floor]" (Nurse 08)
>
> "[...] broken ceramic, risk of cutting ourselves on it [...] The toilet isn't quite straight either, everything is deteriorated" (Elderly Person 09)
>
> "[...] if there is anything [nurse referring to the floor of the home] that could cause a fall [...]. The elderly woman sitting down and falling [...]" (Nurse 09)
>
> "[...] I trip a lot on the child's toys and what I do is fall, but today I walk slowly around the house [...]" (Elderly Person 22)
>
> "[...] I advise him [Elderly Person] to remove things from the floor to avoid falls and fractures" (Nurse 22)

DISCUSSION

The risks in the home environment of elderly people allowed us to make considerations directed to the specificities of individuals aged 60 years or more. Home is considered the place where they usually spend most of their time, since, with advanced age, social activities in the community become less frequent. Therefore, attention to the environment where these elderly people stay for long periods should be the main target of nurses.

In this sense, discussing the risks related to the home environment analyzed in the testimonies of the elderly in line with the testimonies of the nurses goes through three distinct moments, namely: behavioral, biological and physical. Certainly, knowledge about prevention and treatment for healthy aging, at risk or for people living with multiple health conditions in the home environment still represents a current obstacle.[12] In line with this, it is important to emphasize the role of nurses who, guided by Florence Nightingale, recognize that the main objective of Nursing is to give human beings the opportunity

to have the best conditions, so that vital power can be enhanced and, with this, health promoted and diseases prevented, providing comfort, support and education.[13,14]

That said, the first dimension, which deals with behavioral risks, points to the strong influence of the negative self-perception that elderly people have about their health and the depreciated self-image on the loss of autonomy and functional decline. These fragilities cause less ability to take care of oneself and the surroundings, which entails some degree of dependence to carry out activities of daily living that involve similar activities already observed in this research. The behavioral risks portrayed relate to domestic services: washing dishes and clothes, preparing meals and cleaning the house.[15,16]

In this sense, domestic services performed by elderly people pose risks, such as falls. Washing clothes in the tank and walking on the slippery floor due to splashes from washing, the need to climb on a stool to pick up a certain object in a raised cupboard in the kitchen, washing the backyard or bathroom of the house and projecting the body on a completely wet floor, are examples of risky activities analyzed in the statements.

Events of falls among elderly people produce different feelings, especially due to the phenomenon of falling or falling again in this population. This fear must be addressed by nurses in order to make it something useful for preventing falls, however, always avoiding immobility and functional loss.[17] In addition, the fright, anger and shame, which is a concern of the elderly with the image that they show to the other. The possible interpretation of disability, illness, irresponsibility, recklessness or madness triggers the desire to show oneself well to society and break with the idea that falls are related to old age. Consequently, the elderly put themselves in risky situations to validate themselves in front of the other and to reaffirm the self-perception of their condition as an elderly person.[18]

It is also necessary to recognize in the behavioral dimension the feeding of the elderly person. It was observed that most of the interviewees are responsible for preparing their own food, which can contribute to an unbalanced diet, sometimes with excess salt and sugars, or because it is composed of foods that are not suitable for maintaining health. According to the protocol for the use of the Food Guide for the Brazilian Population, it is recommended for elderly people to consume natural foods, such as fresh or dried fruits, nuts, tapioca, milk and natural yogurt, and to avoid the consumption of ultra-processed foods, such as biscuits/cookies, packaged bread, sausages, canned or powdered juice, soft drinks, in addition to sweets and snacks. Therefore, it is essential to guide this population on how to adopt a balanced diet.[19]

In this context, the educational action is a strong accomplice, since it enables the population to access, understand, transmit and evaluate health information. Such a strategy strengthens the relationships between elderly people and health professionals, especially nurses, since this nursing care has a positive impact on the lives of those experiencing old age. In this sense, people who experience the aging process need to be constantly reinforced about their diet, because despite understanding the need to adopt a balanced diet – being diabetes mellitus and Systemic Arterial Hypertension (SAH) the most reported diseases in the study and directly affected by food – many individuals are resistant to such changes because they significantly interfere with their routine.[20,21]

In addition, it is worth noting that elderly people need to make continuous use of various medications. A cross-sectional observational study carried out in Belo Horizonte, capital of the state of Minas Gerais, showed that the frequency of polypharmacy (use of five or more medications) in the age group up to 70 years was high, corresponding to 57.7% of the Primary Care sample, while the population profile demonstrated having more than three diseases, indicated by 49.8% of participants. Similar results are also found in another cross-sectional study on the prevalence of polypharmacy in the elderly (≥65 years), in which 43% of people report having more than three chronic diseases.[22, 23]

All this demand for the associated use of different drug therapies requires a lot of attention, organization and memory from the elderly population. However, because of the functional decline of biological aging, such characteristics may be compromised, thus reflecting on failure to continue treatments, difficulty in adherence and inappropriate use.

In the context of the ineffective behavioral pattern in the use of medication, the adoption of an electronic device, packaging with calendar cards with a reminder for the elderly public, were presented as care alternatives. The device is called "Supermed" and is considered an excellent strategy to increase the adherence of elderly people who, occasionally, do not take their medication correctly due to some functional limitation, difficulty separating the medication, as well as the issue of forgetting.[24]

Indeed, from the perspective of the second dimension analyzed, which deals with biological risks, on the one hand, contents related to senility were identified; on the other, content related to senescence. Regarding the main diseases portrayed by the elderly, there are: Diabetes, Parkinson's and SAH.

It is known that the prevalence of chronic diseases in the elderly is high and this fact was observed in a survey of multiple cohorts, which reported an association between the presence of cardiovascular diseases, for example, with the highest age groups.[25]

The fact is that multimorbidity is an occurrence of two or more chronic conditions recognized as a significant public health problem that negatively affects health-related quality of life and increases the use of health and social services, especially among older people.[26]

The SAH is a non-transmissible chronic disease (NCD), defined by pressure levels, where there is a persistent increase in blood pressure (BP), that is, systolic blood pressure (SBP) greater than or equal to 140 mmHg and/or diastolic blood pressure (DBP) greater than or equal to 90 mmHg. This physiological imbalance generates overload in the heart in its attempt to maintain the standard performance of its functions. It is a multicausal condition, which derives from genetic, environmental and social factors, and their interactions. It affects 60% of the elderly population, directly and indirectly contributing to the patient's death.[27,28]

Diabetes mellitus (DM) is differentiated into a diverse group of metabolic disorders that are characterized by hyperglycemia and result from defects in the action and/or secretion of insulin. In the atlas of the International Diabetes Federation, which shows the 10 countries with the highest number of individuals with diabetes in 2017, Brazil stood out in fourth position, with the number of 12.5 million people affected. For the year 2045, projections estimated a total of 20.3 million people with diabetes, which would place the country in fifth position.[29,30]

Diabetes and cardiovascular diseases such as SAH were responsible for a total of more than 70% of all deaths in the world, equivalent to 41 million deaths. In 2018, information from the Ministry of Health indicated that 39.5% of elderly people have some chronic disease, and a total of 30% of them have two or more.[31] In fact, there is a significant finding of simultaneous prevalence of arterial hypertension and diabetes mellitus in the elderly population group, representing 16.2% of its results, with variations according to the Brazilian capitals.[29]

For chronic degenerative diseases, Parkinson's represents a total of 1% of the world's population aged over 65 years. The disease is characterized by the lack of regeneration of the affected systems and, as it progresses to a severe effect, it causes a lot of wear and suffering in the elderly. The main symptoms are rigidity, tremor at rest, reduction in gait and balance, bradykinesia and decrease in movement capacity. These motor disorders are capable of causing a loss of will to perform the activities they used to do before, leading the person to social isolation, functional dependence, loss of autonomy, decreased quality of life and depressive symptoms.[32,33]

Aging involves physical changes and has a significant social component. In terms of senescence, the concepts point out that the aging process causes a decline in visual acuity, promoting the loss of autonomy and low quality of life, by limiting mobility and, consequently, making the individual dependent on other people to carry out basic activities. With the increase in the elderly population in the country, there has been an increase in eye diseases, more frequent in this public. One can add the aggravating factor that the decrease in visual acuity interferes with balance and gait, increasing, in addition to dependence on third parties, the frequency of accidents, such as fractures and falls.[34–37]

The last dimension to be highlighted concerns physical risks. It should be discussed that approximately one third of elderly people over the age of 65 suffer, on average, one falling episode annually, which is the second leading cause of death from unintentional injuries in the world. In Brazil, among individuals aged 80 or over, a total of 40% happen to fall throughout the year, and for those who live in long-stay institutions, the frequency of falls is 10% higher, adding up to a total of 50%. [31,38]

With this composition, prevention is a difficult job due to the diversity of predisposing conditions. It is also noteworthy that the fall for this public is a socially relevant factor for public health, as it consists of one of the major causes of trauma, injuries, hospitalizations and deaths in this age group. Furthermore, the risk of falls contributes to a decrease in autonomy and to functional decline, with consequences directly linked to the quality of life of the elderly person.[39]

Based on this, scientific evidence indicates that the bathroom, in relation to the level of autonomy in activities and safety, is considered one of the most worrying rooms in the home environment for the elderly. They declare that they are afraid of domestic accidents related to falls, pointing to the bathroom as

the place that offers the greatest insecurity and, therefore, the greatest risk, given that this public has difficulties related to maintaining body balance.[40]

As a way to ensure more safety for the elderly, interdisciplinary recommendations should be adopted by health professionals to implement care protocols to prevent falls aimed at identifying physical risks, involving wet, smooth and uneven floors; uneven toilet; slippery rugs, among others.[41]

Through critical and meticulous analyses, the professional will be able to map risk factors for falls and make the necessary recommendations to succeed in implementing the necessary modifications, such as: tidying up disorganized environments, with misplaced furniture or objects left on the floor; recommend that rugs and mats are not used on smooth surfaces; suggest the placement of non-slip tiles, avoiding slippery floors; and advise against wearing slippers, untied shoes, ill-fitting shoes or shoes with flat soles.[42]

Despite the consistency of the methodological path, one should consider as a limitation of the research the exclusion of BHU exclusive to care for mild to moderate cases of COVID-19, which reduced the sample size of units available for contact; restriction, throughout the collection, regarding home visits to the elderly, as they represent a risk group in a pandemic context. In addition, the presentation of results would benefit from the use of programs that represent the qualitative findings in the form of a decoding tree. It should also be noted that the assessment of the cognitive status of the elderly was carried out without the application of a validated instrument.

Through the exposed meanings, it is believed that this investigation opens the way for critical and reflective analyses on the risks that affect the aging process at home. In addition, the results of this investigation strengthen, in the practical field of nursing, the appreciation of the home environment, especially in the elaboration and implementation of conducts for elderly people who live at home and are assisted by FHS teams.

CONCLUSION

The behavior-biology-environment triad represents a key-complex for thinking about the health-disease process of elderly people living at home. In this sense, the riskiest behaviors analyzed in the elderly's homes were related to the performance of domestic activities consisting of actions such as cleaning, washing and cooking. There was also a lack of knowledge among elderly people regarding the medications used, resulting in their ineffective use and inappropriate eating habits, which impair the maintenance of control over chronic diseases.

In the sequence of risks, the biological ones, analyzed as a second dimension, where the senility and senescence content units were detected. They describe aging resulting from chronic diseases, namely: Diabetes, SAH and Parkinson's. Healthy aging was characterized only by a decline in visual acuity.

Finally, the third dimension portrays the physical risks, where elements that induce falls inside the home were analyzed, such as: misaligned toilets, objects on the floor, use of rugs, smooth, broken and wet floors.

CONTRIBUITIONS

Contributed to the conception or design of the study/research: Bezerra DS. Contributed to data collection: Bezerra DS. Contributed to the analysis and/or interpretation of data: Bezerra DS, Bezerra NKS, Caldart RV. Contributed to article writing or critical review: Bezerra DS, Bezerra NKS, Caldart RV. Final approval of the version to be published: Silva PS.

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REFERENCES

1. Araújo M, Diniz S, Silva P. Registros de enfermagem: reflexões sobre o cotidiano do cuidar. ABCS Health Sciences. 2017;42(3):161–5. doi: https://doi.org/10.7322/abcshs.v42i3.920.

2. Riegel F, Crossetti MGO, Martini JG, Nes AAG. A teoria de Florence Nightingale e suas contribuições para o pensamento crítico holístico na enfermagem. Rev Bras Enferm [Internet]. 2021;74(2):e20200139. doi: https://doi.org/10.1590/0034-7167-2020-0139.

3. PhD VS. Florence Nightingale's Notes on Nursing and Notes on Nursing for the Labouring Classes: Commemorative Edition with Historical Commentary. Springer Publishing Company; 2010. 480 p.

4. Medeiros ABA, Enders BC, Lira ALBDC. Teoria Ambientalista de Florence Nightingale: Uma Análise Crítica. Esc Anna Nery. 2015;19(3):518–24. doi: https://doi.org/10.5935/1414-8145.20150069.

5. Rodrigues RAP, Bueno AA, Casemiro FG, Cunha AN, Carvalho LPN, Almeida VC, et al. Pressupostos das boas práticas do cuidado domiciliar ao idoso: revisão sistemática. Rev Bras Enferm. 2019;72(Suppl 2):302–10. doi: https://doi.org/10.1590/0034-7167-2018-0445.

6. Tavares RE, Jesus MCP, Machado DR, Braga VAS, Tocantins FR, Merighi MAB. Envelhecimento saudável na perspectiva de idosos: uma revisão integrativa. Rev. bras. geriatr. gerontol. 2017;20(06):889-900. doi: https://doi.org/10.1590/1981-22562017020.170091.

7. Barbosa KTF, Oliveira FMRL, Fernandes MGM. Vulnerabilidade da pessoa idosa: análise conceitual. Rev Bras Enferm. 2019;72(Suppl 2):337–44. doi: https://doi.org/10.1590/0034-7167-2018-0728.

8. Carvalho KM, Silva CRDT, Figueiredo MLF, Nogueira LT, Andrade EMLR. Intervenções educativas para promoção da saúde do idoso: revisão integrativa. Acta paul enferm. 2018;31(4):446–54. doi: https://doi.org/10.1590/1982-0194201800062.

9. Alves MB, Menezes MR, Felzemburg RDM, Silva VA, Amaral JB. Instituições de longa permanência para idosos: aspectos físico-estruturais e organizacionais. Esc Anna Nery. 2017;21(4):1-8. doi: https://doi.org/10.1590/2177-9465-EAN-2016-0337.

10. Bardin L. Chapitre premier. Organisation de l'analyse. Em: L'analyse de contenu. Paris edex: Presses Universitaires de France; 2013. 133 p.

11. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care. 2007;19(6):349–57. doi: https://doi.org/10.1093/intqhc/mzm042.

12. Suls J, Green PA, Boyd CM. Multimorbidity: Implications and directions for health psychology and behavioral medicine. Health Psychol. 2019;38(9):772–82. doi: https://doi.org/10.1037/hea0000762.

13. Padilha MI. De Florence Nightingale à pandemia COVID-19: o legado que queremos. Texto contexto - enferm. 2020;29:1-14. doi: https://doi.org/10.1590/1980-265X-TCE-2020-0327.

14. Nightingale F. Notes on Nursing. New York: Springer, 2010.

15. Coutinho LSB, Tomasi E. Déficit de autocuidado em idosos: características, fatores associados e recomendações às equipes de Estratégia Saúde da Família. Interface (Botucatu). 2020; 24(suppl 1):e190578. doi: https://doi.org/10.1590/Interface.190578.

16. Sousa CR, Coutinho JFV, Freire Neto JB, Barbosa RGB, Marques MB, Diniz JL. Factors associated with vulnerability and fragility in the elderly: a cross-sectional study. Rev bras enferm. 2022;75(2):e20200399. doi: https://doi.org/10.1590/0034-7167-2020-0399.

17. Leitão SM, Oliveira SC, Rolim LR, Carvalho RP, Coelho Filho JM, Peixoto Junior AA. Epidemiologia das quedas entre idosos no Brasil: uma revisão integrativa de literatura Geriatr Gerontol Aging. 2018;12(3):172-9. doi: https://doi.org/10.5327/Z2447-211520181800030.

18. Estrêla ATC, Machin R. O corpo na velhice e suas relações com as quedas a partir da narrativa de idosos. Ciênc saúde coletiva. 2021;26(11):5681–90. doi: https://doi.org/10.1590/1413-812320212611.30472020.

19. Jesus JGL, Tramontt CR, Santos TSS, Rauber F, Louzada MLC, Jaime PC. Orientação alimentar da pessoa idosa na Atenção Primária à Saúde: desenvolvimento e validação de um protocolo baseado no Guia Alimentar para a População Brasileira. Rev bras geriatr gerontol. 2021;24(5):e210157. doi: https://doi.org/10.1590/1981-22562021024.210157.pt.

20. Serbim AK, Santos NO, Paskulin LMG. Effects of the Alpha-Health intervention on elderly's health literacy in primary health care. Rev Bras Enferm [Internet]. 2022;75(Suppl 4):e20200978. doi: https://doi.org/10.1590/0034-7167-2020-0978.

21. Ferreira GRS, Viana LRC, Pimenta CJL, Silva CRR, Costa TF, Oliveira JS, et al. Self-care of elderly people with diabetes mellitus and the nurse-patient interpersonal relationship. Rev Bras Enferm. 2022;75(01):e20201257. doi: https://doi.org/10.1590/0034-7167-2020-1257.

22. Marques PP, Assumpção D, Rezende R, Neri AL, Francisco PMSB. Polifarmácia em idosos comunitários: resultados do estudo Fibra. Rev bras geriatr gerontol.2019;22(05):e190118. doi: https://doi.org/10.1590/1981-22562019022.190118.

23. Oliveira PC, Silveira MR, Ceccato MGB, Reis AMM, Pinto IVL, Reis EA. Prevalência e Fatores Associados à Polifarmácia em Idosos Atendidos na Atenção Primária à Saúde em Belo Horizonte-MG, Brasil. Ciênc saúde coletiva. 2021;26(4):1553–64. doi: https://doi.org/10.1590/1413-81232021264.08472019.

24. Vieira LB, Reis AMM, Ramos CÁ, Reis TM, Cassiani SHB. Uso de um dispositivo eletrônico organizador de medicamentos com alarme para melhorar a adesão medicamentosa de idosos com hipertensão. Einstein (São Paulo). 2021;19:eAO6011. doi: https://doi.org/10.31744/einstein_journal/2021AO6011.

25. Massa KHC, Duarte YAO, Chiavegatto ADP. Análise da prevalência de doenças cardiovasculares e fatores associados em idosos, 2000-2010. Ciênc saúde coletiva. 2019; 24:105–14. doi: https://doi.org/10.1590/1413-81232018241.02072017.

26. Whitmore C, Markle-Reid M, Fisher K, Ploeg J, McAiney C, Griffith L, et al. The Relationship Between Multimorbidity and Self-Reported Health Among Community-Dwelling Older Adults and the Factors that Shape This Relationship: A Mixed Methods Study Protocol Using CLSA Baseline. International Journal of Qualitative Methods. 2021; 20:16094069211050166. doi: https://doi.org/10.1177/16094069211050166.

27. Barroso WKS, Rodrigues CIS, Bortolotto LA, Mota-Gomes MA, Brandão AA, Feitosa ADM, et al. Diretrizes Brasileiras de Hipertensão Arterial – 2020. Arq Bras Cardiol. 2021; 116:516–658. doi: https://doi.org/10.36660/abc.20201238.

28. Précoma DB, Oliveira GMM, Simão AF, Dutra OP, Coelho OR, Izar MCO, et al. Atualização da Diretriz de Prevenção Cardiovascular da Sociedade Brasileira de Cardiologia. Arq Bras Cardiol. 2019;113(4):787–891. doi: https://doi.org/10.5935/abc.20190204.

29. Francisco PMSB, Rodrigues PS, Costa KS, Tavares NUL, Tierling VL, Barros MBA, et al. Prevalência de diabetes em adultos e idosos, uso de medicamentos e fontes de obtenção: uma análise comparativa de 2012 e 2016. Rev bras epidemiol. 2019;22:e19006. doi: https://doi.org/10.1590/1980-549720190061.

30. Diretrizes da Sociedade Brasileira de Diabetes 2019 – 2020 [Internet]. Disponível em: https://portaldeboaspraticas.iff.fiocruz.br/biblioteca/diretrizes-da-sociedade-brasileira-de-diabetes-2019-2020/.

31. Organização Mundial de Saúde OMS. OMS divulga metas para 2019; desafios impactam a vida de idosos [Internet]. SBGG. 2019. Disponível em: https://sbgg.org.br/oms-divulga-metas-para-2019-desafios-impactam-a-vida-de-idosos/.

32. Nunes SFL, Alvarez AM, Valcarenghi RV. Doença de parkinson na atenção primária à saúde e o cuidado de enfermagem: revisão de escopo. Esc Enferm USP. 2022;56:e20210367. doi: https://doi.org/10.1590/1980-220X-REEUSP-2021-0367.

33. Silva TP, Carvalho CRA. Doença de Parkinson: o tratamento terapêutico ocupacional na perspectiva dos profissionais e dos idosos. Cad Bras Ter Ocup. 2019;27(2):331–44. doi: https://doi.org/10.4322/2526-8910.ctoAO1229.

34. Pereira NB, Chaves MR, Pereira GV, Ramos LFL, Gonçalves CT, Lafetá BN, et al. Avaliação da função visual e qualidade de vida relacionada à visão em pacientes portadores de catarata senil. Rev bras oftalmol. 2021;80(2):111–6. doi: https://doi.org/10.5935/0034-7280.20210021.

35. Lopes AA, Jayme DHC, Abreu ILV, Silva IE, Lobo MHS, Oliveira MC, et al. Evaluation of visual functions and their relationship to functional vision and falls in active elderly of the community. Rev bras oftalmol. 2020;79(4):236–41. doi: https://doi.org/10.5935/0034-7280.20200051.

36. Van den Hoonaard DK. Learning to Be Old: How Qualitative Research Contributes to Our Understanding of Ageism. International Journal of Qualitative Methods. 2018;17(1):1609406918810556. doi: https://doi.org/10.1177/1609406918810556.

37. Farias BS. Percepção na terceira idade: pesquisa experimental sobre tipografia para idosos. Design e Tecnologia. 2018;8(16):29–40. doi: https://doi.org/10.23972/det2018iss16pp29-40.

38. Lima-Costa MF, Mambrini JVM, Andrade FB, Souza PRB, Vasconcellos MTL, Neri AL, et al. Cohort Profile: The Brazilian Longitudinal Study of Ageing (ELSI-Brazil). Int J Epidemiol. 2022; dyac:132. doi: https://doi.org/10.1093/ije/dyac132.

39. Giacomini SBL, Fhon JR, Rodrigues RAP. Fragilidade e risco de queda em idosos que vivem no domicílio. Acta paul enferm. 2020;33:eAPE20190124. doi: https://doi.org/10.37689/acta-ape/2020AO0124.

40. Drummond A, Pimentel WRT, Pagotto V, Menezes RL. Disability on performing daily living activities in the elderly and history of falls: an analysis of the National Health Survey, 2013. Rev bras epidemiol. 2020;23:e200055. doi: https://doi.org/10.1590/1980-549720200055.

41. Rosa VPP, Cappellari FCBD, Urbanetto J de S. Análise dos fatores de risco para queda em idosos institucionalizados. Rev bras geriatr gerontol [Internet]. 2019;22(2): e180138. doi: https://doi.org/10.1590/1981-22562019022.180138.

42. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Envelhecimento e saúde da pessoa idosa. Cadernos de Atenção Básica n.° 19 Série A. Normas e Manuais Técnicos – Brasília, DF: Ministério da Saúde, 2006. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/evelhecimento_saude_pessoa_idosa.pdf.

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