



ELDERLY AND URBAN MOBILITY: A REFLECTIVE APPROACH TO NURSING
O IDOSO E A MOBILIDADE URBANA: UMA ABORDAGEM REFLEXIVA PARA A ENFERMAGEM
EL ANCIANO Y LA MOBILIDAD URBANA: UN ENFOQUE REFLEXIVO PARA LA ENFERMERÍA

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ABSTRACT

Objective: to analyze the nursing performance in the attention to the elderly people in the face of urban mobility. **Method:** this is a qualitative, descriptive, reflexive analysis type, based on the review of the narrative literature with the discussion of the following points: the elderly people and urban mobility, the focus of accessibility to the elderly people before urban mobility and nursing care for the elderly urban mobility. **Results:** it is the responsibility of the nurse to make an active search assessing environmental risks and predisposing factors for falls, considering the elderly population in their totality, habits, home environment, community environment, family or caregivers. This search should have a preventive characteristic and be focused on the autonomy of the elderly, seeking, in this way, to reduce the occurrence of falls and hospitalizations. **Conclusion:** nursing performance can impact the better cognitive and functional conditions of the aging process. Preventive measures should be evidenced for the better coping of the elderly in the face of urban development. **Descriptors:** Aged; City Planning; Nursing.

RESUMO

Objetivo: analisar a atuação da enfermagem na atenção ao idoso diante da mobilidade urbana. **Método:** estudo qualitativo, descritivo, tipo análise reflexiva, com base na revisão de literatura narrativa, com a discussão dos seguintes pontos: o idoso e a mobilidade urbana, o foco da acessibilidade ao idoso diante da mobilidade urbana e a enfermagem na atenção ao idoso diante da mobilidade urbana. **Resultados:** compete ao enfermeiro fazer a busca ativa avaliando riscos ambientais e fatores predisponentes para quedas, considerando o idoso em sua totalidade, hábitos, ambiente domiciliar, ambiente da comunidade, família ou cuidadores. Essa busca deve ter característica preventiva e estar voltada para a autonomia dos idosos, procurando, dessa forma, reduzir as ocorrências de quedas e internações. **Conclusão:** a atuação da enfermagem pode gerar impacto em melhores condições cognitivas e funcionais do processo de envelhecer. As medidas preventivas devem ser evidenciadas para o melhor enfrentamento dos idosos diante do desenvolvimento urbano. **Descritores:** Idoso; Planejamento de Cidades; Enfermagem.

RESUMEN

Objetivo: analizar la actuación de la enfermeira en la atención al anciano frente a la movilidad urbana. **Método:** estudio cualitativo, descriptivo, tipo análisis reflexivo, con base en la revisión de literatura narrativa, con la discusión de los siguientes puntos: el anciano y la movilidad urbana, el foco de la accesibilidad al anciano frente a la movilidad urbana y la enfermería en la atención al anciano frente a la movilidad urbana. **Resultados:** compete al enfermero hacer la búsqueda activa evaluando riesgos ambientales y factores predisponentes para caídas, considerando el anciano en su totalidad, hábitos, ambiente domiciliario, ambiente de la comunidad, familia o cuidadores. Esa búsqueda debe tener característica preventiva y estar dirigidas para la autonomía de los ancianos, buscando, de esa forma, reducir las ocorrências de caídas y internaciones. **Conclusión:** la actuación de la enfermería puede generar impacto en mejores condiciones cognitivas y funcionales del proceso de envejecer. Las medidas preventivas deben ser evidenciadas para el mejor enfrentamiento de los ancianos frente al desarrollo urbano. **Descritores:** Anciano; Planificación de Cidades; Enfermería.

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INTRODUCTION

Following the transition of rural population to urban area, the proportion of elderly people aged 60 years old and over has increased from 9.7% in 2004 to 13.7% in 2014, the highest age group in the population according to the IBGE (2013), in the National Household Sample Survey (PNAD).¹

The projection of the Population by Gender and Age, carried out by the IBGE in 2013, indicates a tendency to increase the proportion of elderly people in the population as a consequence of the process of demographic transition. By 2030, this proportion would be 18.6% and, in 2060, 33.7%, that is, every three people in the population will be at least 60 years old.¹ Also, there was an increase in the people 80 years old or over in the population, from 1.2% in 2004 to 1.9% in 2014.²

This new demographic panorama will also require the health system, social security and public policies to respond to current and future demands. Studies conducted in 2013 indicated that hospital care for the elderly population accounted for 31.6% of public expenditures with hospitalizations, which is highlighted, considering the fast increase in the elderly population.³

Massive population aging and urbanization suggest better living conditions, although there are gaps in physical and health care that challenge public policies and health services. In this new population scenario, it is up to the public power to think urgently about accessibility projects that facilitate healthy aging.

The patients' understanding of the use of the elements of urbanization in general and the didactic-cognitive quality of the information devices and urban signage determine the acceptance condition of the furniture and the built environment. This term encompasses physical and non-physical ergonomic aspects, such as strength, locomotion, handling, readability, and perception. One of the main challenges to be considered in the relation of the elderly in the urban environment is the form of appropriation and use of space in the large and medium Brazilian cities. Most of them present urban configuration of the Colonial Period with a significant amount of historical patrimony overturned. In turn, this model has characteristics of the medieval European model with narrow sidewalks, slopes and extensive staircases. The appropriation of the physical space, especially by the Portuguese, took place near the ridges, established on the

top of the hills and slopes. Thus, the search for new solutions involves the consideration of the dominant topography in these models with high urban sites next to coastal areas and visibility of the flows of the ships. This model was adopted to function as protection against attacks and intrusions, and flow of production, among other arguments.⁴

Thus, supportive urban interventions include removing barriers, establishing accessibility standards, and ensuring compliance in buildings, transportation, and information and communication technologies. Also, urban planning and land use decisions and their impact on the safety and mobility of the elderly should be considered.⁵

For this reason, both the elderly people who perform their daily living activities without help are considered as active, as the elderly people who need some help to carry out their activities. Problems common to this age group can be observed and the most relevant to this study are the reduction of body mass, which gives the elderly less ability to balance in situations that require strength.

The difficulty of transiting hinders for the elderly population to interact socially and contributes to social isolation, which is one of the detrimental characteristics of today's society.⁶

It is a consensus throughout the world, even advocated by the World Health Organization that aging must be active and organize the occupation of large cities, is the best way to promote people's access to what the city offers (schools, parks, hospitals). Thus, good conditions of urban mobility for the elderly people, besides facilitating their access to health services, will also provide a better social life, increasing the quality of life of the population.⁶

With the natural changes in body physiology in aging, many older people are prone to have accidents, whether at home, with their own "known" obstacles, or more to the "unknown" obstacles they impose on the street and transportation. In view of the rapid increase in population, urbanization and a high drop rate among the elderly, and their incapacitating, exclusionary and fatal complications, it is the responsibility of the entire population and government to promote a safe environment outside their homes.

Aging in Brazil in the twenty-first century allowed the elderly rights that ensure numerous benefits, more social participation, priority in establishments, promising scientific discoveries in the health area and also in the technology area; projects of physical practices

that provided better conditions of life and health; increased inclusion in the labor market and life expectancy. Despite such progress, the improvements found are still unsatisfactory and many issues related to urbanization and transport has not followed in the course of this evolution.

OBJECTIVE

- To analyze the performance of nursing care for the elderly population in the face of urban mobility.

METHOD

This qualitative and descriptive study consists of a reflexive approach to the elderly people and urban mobility and the highlights of nursing in this context. For the elaboration of the research, it was opted for the previous accomplishment of a narrative review of the literature, allowing an extended and contextualized approach.

Based on a review of the narrative literature, the text was organized in the following points of analysis: The elderly and urban mobility; The focus of accessibility to the elderly in the face of urban mobility; and Nursing care to the elderly in the face of urban mobility.

The theoretical-methodological trajectory was structured through the epistemological and ethical approach of care in view of its complexity in Nursing and in health with a view to fair and adequate accessibility for the elderly. The complexity in the production of knowledge and technologies of care, transformation, and innovation of knowledge in nursing and health are discussed issues of accessibility to the elderly that contribute to the scientific knowledge of Nursing, materializing in the articulation of concepts urban mobility, accessibility of the elderly and nursing.

The elaboration of the reflexive analysis occurred through the search in the literature of the production on the theme based on the concepts mentioned in the Virtual Health Library (VHL) and Pubmed, with support in the descriptors elderly, city planning and nursing (Aged, City Planning, Nursing) selecting articles available in full, published in the last five years with content to support the initially proposed discussion. There was no intention of an integrative or systematic search of the literature, but only theoretical reinforcement for the proposed reflections.

This theme is the result of discussions and research carried out at the Center for Nursing Fundamentals (NEFE) belonging to the

Academic Program in Health Care Sciences of the Aurora Nursing School of Afonso Costa, Federal Fluminense University.

RESULTS AND DISCUSSION

◆ The Elderly and Urban Mobility

In view of the increased number of individuals aged 60 years old or older, that is, Brazilian elderly, the concern about the vulnerability that this aging generates in the individual in a particular and individual way increases. In this way, aging leads to greater vulnerability to situations that may lead to loss of independence or health of the elderly. Accompanied by this reality, the use of public service systems by these active elderly people grows, demonstrating the importance of mobility for the maintenance of autonomy, independence and health of these people and that the quality of services is essential for mobility to offer its function with quality and accessibility, that is, strategic actions aimed at the quality of urban displacement should seek to adapt and modify to the new reality, seeking to offer their functions appropriate to their needs.⁷

The elderly are inserted in a Third Industrial Revolution environment, with equipment, urban furniture, and complex transport system, without the physical link with their previous, familiar configuration. The multimodal shipping terminals that integrate various means of locomotion, automated and impersonal present a challenge for this group of individuals surviving another technological moment. This new environment is hostile to the elderly by the absence of visual and temporal references with the situations experienced in stages prior to the third age. The knowledge of the physical and cognitive characteristics of this group could allow an attenuation of this condition of relation with the physical environment, making it less hostile to this population by means of solutions that consider the characteristics of this significant portion of the population.⁴

Urban environmental barriers subjectively reported by the elderly include poor access to public transportation, discontinuation or unevenness of sidewalks, holes and inadequate lighting. Design of visual orientation signs, barrier-free sidewalks, traffic signs and pedestrian signals and easy access to recreational activities have been shown to be positive for mobility in the elderly; already poor road conditions, heavy traffic, and excessive noise are being shown as the appearance of mobility deficits.⁸

The fear of falling has been reported in many articles and brings to the elderly, especially the elderly with the risk of falls, disabling feelings and social exclusion. A study found that the frequency of fear of falling reached almost all the elderly subjects submitted to the tests. It is possible that this difference is related to the fact that adequate physical environments lead the elderly to greater independence because when they find barriers in the physical environment, the homeless and are more inclined to isolation, depression, more mobility problems and a consequent increase in the fear of falling.⁹

Other factors that contribute to the risk of falls are deficiencies in the vision, which are very common among the elderly. Among the wide range of factors affecting the health, well-being, and safety of older people, age-related sight impairment is commonly cited in lists of risk factors for falls.¹⁰ Other known risk factors for falls include advanced age, cognitive impairment, polypharmacy, balance and gait problems, weakness in the extremities, Parkinson's disease, hypertension, stroke, arthritis, and environmental risks.¹¹

Causes of falls may be related to the external environment - inadequate sidewalk, lighting, carpeting, furniture location - or to the patient who may be fragile in some respect - with sensory changes (visual, hearing, touch, balance), loss of muscle strength or severe cardiac and vascular changes.¹²

The Unified Health System (SUS) registers each year more than R\$ 51 million with treatment of fractures due to falls and R \$24.77 million with medicines for the treatment of osteoporosis, a disease that affects mainly postmenopausal women, characterized by the fragility of the bones.¹²

More severe cases of fractures can lead to death, especially of the femur. To reduce mortality among the elderly after falls, the Ministry of Health created the Advisory Committee on Policies for the Prevention and Promotion of Care for Osteoporosis and for Falls in the Elderly. The Committee, made up of representatives of several medical institutions, holds workshops on the subject.¹²

Many studies have been carried out and found that physical exercises contribute to a better muscular strengthening of the elderly, preventing falls. Health problems and falls can be alleviated with physical activity particularly in the elderly.¹³

Another study conducted in Japan with elderly people aged 65 or over aimed to clarify whether decreasing the frequency of

leaving home and being socially isolated have synergistic or independent impacts on the future functional decline for precarious health predictors. The results showed predictors of functional decline following social isolation.¹⁴

The limitations associated with aging coincide with the desire to provide better environmental and urban characteristics for the elderly. These preventive measures may include improvements in urban deficiencies and potentiate active aging.¹⁵

◆ The focus of accessibility to the elderly in the face of urban mobility

Regarding the legislation, it can be highlighted that in Brazil there are legal instruments such as Federal Ordinance 10.098/2000, which establishes standards and criteria for promoting the accessibility of people with disabilities or reduced mobility. Part of the elderly population is included in the group of people with reduced mobility. Today, actions in inclusion policies, particularly with regard to accessibility, the management of Brazilian cities already privilege its own legislation and implements sectoral master plans oriented to the theme of accessibility-urban mobility.⁴

The municipal public power has the responsibility to ensure the social function of the city, and urban accessibility must have space guaranteed in the discussions and agendas of public policies, seeking to reduce social inequalities and promote social justice and the quality of urban life.¹⁶

While industrial society allowed time to learn new emerging technologies in the knowledge society, the speed of insertion and removal of a system or equipment in the urban environment reduces the time of the elderly for a learning and safe use of the utilities at their disposal. Some disorders to the elderly population, with a direct impact on the perception and use of the described urban environment, due to the transformations that originated the environment of the 21st century, can be highlighted: a) difficulties of motor coordination, handling, manipulation of displays for ticketing and triggering ratchets in modal public transport systems; b) reduction of learning time of the applications available for time and itinerary information; c) alteration of the manual ability, with difficulty of use in the gestural information screens; d) implications in long-term memory (KAPFERER, 1991) with difficulties in attention, perception, understanding and memorization of information and urban signaling; e) changes in the request of the

senses (sight, touch and hearing): readability, couplings and interpretation of signals; f) difficulties in the perception and cognition of environments, spaces and messages transmitted with significance restricted to the current cultural context.⁴

Thus, the knowledge of this people can lead to modifications in the urban environment, adapting the existing reality to obtain urban situations of accessibility. They aim to establish facilities of general use to allow the population wide and unrestricted use of urban space, through qualification actions.⁴

The current situation shows that although there are constitutional laws and principles that aim to guarantee the social rights of the elderly, especially access to services, the practice is far from what is proposed. In 2012, the Law on Urban Mobility came into force, with guidelines for transportation in all Brazilian municipalities, and since 2000 the Accessibility Law has been in force, which provides rules to guarantee the autonomy of citizens with reduced mobility. In practice, however, legislation only applies to new urbanization projects.⁶

Planning with the incorporation of new concepts of urban environment, in accordance with the new view of urban accessibility and mobility, necessarily involves the consideration of some physiological characteristics of the population of elderly individuals. Among the solutions to be considered in urban planning and management, the typologies of information and sound signaling can be highlighted considering the levels of auditory acuity of this population. Reduced levels of visual acuity require a need to control lighting levels for reading, with implications for information systems and urban signaling. Thus, the knowledge of this people can lead to modifications in the urban environment, adapting the existing reality to obtain urban situations of accessibility.⁴

◆ Nursing in the attention to the Elderly in the face of urban mobility

It is the responsibility of the nurse, especially the primary care nurse, to conduct orientations directed to the real needs of the elderly assisted by actively seeking, assessing environmental risks and predisposing factors for falls. This assistance should be performed considering the elderly in their totality, habits, home environment, community environment, family or caregivers. These nursing care should have a preventive characteristic and be focused on the

autonomy of the elderly, trying to reduce as much as possible the number of falls and hospitalizations due to environmental damage.

Thus, nurses have in primary health care a broad space of development for their professional performance, either through nursing consultation, in the office or at home, or through health education activities, which can be carried out at the individual or collective level. Referring to elderly people's health care and to all the specificities of the aging process, it is extremely necessary to perform nursing consultation for the elderly in health services.¹⁷

Care has several forms of expression and the family seems to be a point in common to all because it is the generator and responsible for this care. In the family environment, people learn the rituals of care whose experiences consider the culture of family members.¹⁷ The family can join forces with nursing, making it a great supporter of care, since it strengthens the guidelines given by the making the continuity of the interventions performed in the nursing consultation.

Professionals providing this assistance need guidance and practice on enabling care models that aim to recognize the qualities of older people and encourage them to maintain independent attitudes, even when they are fragile. Knowledge of the theory and approaches in the care of the elderly is essential for the training of health students. Professionals need to be up-to-date on the aging process and ways to promote active aging.¹⁷

Thus, it is important to perform the neurological evaluation of the patients, to identify the changes related to the increased risk of falls and to establish the preventive measures more appropriate to each one's condition. Inserted in this context, there is the concern of nursing in the search for subsidies to carry out interventions that allow free and safe quality care for patients.¹⁸

The focus on identifying potential risks and directing resources from the health system to an early intervention results in better chances of rehabilitation and reducing the impact on its functionality by drawing up plans that meet in an individualized and coherent way the needs of each elderly person, recovery, the prevention of falls from self-care and the reintegration of the elderly in society in the face of urban mobility.¹⁹

Also, the benefits provided by the practice of physical activities in the maintenance of the health and the functional capacities of the

elderly individual allow reducing the losses of the sedentarism accelerating the decrease of the functional capacity, leading to the independence for the performance of the daily activities. Based on these premises, this population should be encouraged to be active, as people grow older, and must be guaranteed more opportunities through better spaces for walking, quality equipment in public squares, among other actions these elderly people are always moving.²⁰

Several factors may contribute to the loss of muscle strength, including musculoskeletal disorders and the accumulation of chronic diseases, but it is also associated with mobility and limited physical performance. The developed actions should stimulate the physical activities and the localized exercises strengthen the musculature, improving the localized muscular resistance and the flexibility, contributing for the elderly person to carry out his activities of daily living. The physical independence in the activities developed daily and that allows mobility and provides the conviviality between people who are experiencing the same problems and similar experiences.²¹

It is true that the urban and spatial conditions of the place where we live are the responsibility of all. As in a democratic society, we have the right and duty to demand improvements from the rulers. Nursing as a category does not have a special attribution that facilitates or accelerates the process of changing the urban obstacles that impair the motor capacity of the elderly and predisposes them to falls. The influence of nursing is on care, which impacts the better cognitive and functional conditions of the aging process. While urbanization needs are not remedied, preventive measures are thrown in for the better coping of the elderly who need to actively age despite the hurdles imposed on them.

Nursing needs to overcome the gaze focused on the complaints and injuries presented, need to broaden their professional vision, recognizing that health is a result of context and living conditions, access to services (physical and cultural) and lifestyle. Thus, the actions developed are more likely to be more effective. For this, it is fundamental to participate in lifelong education aimed at the elderly population considering its specificity.²²

CONCLUSION

This article had the objective of analyzing the nursing performance in the care of the elderly people in the face of urban mobility.

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Through its main highlights of analysis, it is noticed that many of the points addressed are applied in our Brazilian society.

With a forward-looking view, it is necessary to look at these issues regarding the accessibility of the elderly so the aging process has a more advantageous social character and free of the risks of falls.

Thus, with the incorporation of new urban environment concepts, in accordance with the new visions of urban accessibility and mobility, it is possible to think of an active society or with its reduced mobility.

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