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INTEGRATIVE LITERATURE REVIEW ARTICLE

FALLS IN ELDERLY PEOPLE LIVING IN THE COMMUNITY: THE HEALTH POLICIES AND STRATEGIES OF PREVENTION

QUEDAS EM IDOSOS A VIVER NA COMUNIDADE: POLITICAS DE SAÚDE E ESTRATÉGIAS DE PREVENÇÃO

CAÍDAS EN LOS ANCIANOS RESIDENTES EN LA COMUNIDAD: LAS POLÍTICAS DE SALUD Y ESTRATEGIAS DE PREVENCIÓN

Carla Virgínia Oliveira Andrade Espada¹, Maria Manuela Narciso Pereira²

ABSTRACT

Objective: to describe the policies of health promotion and risk prevention of falls in the elderly and provide intervention strategies that effectively reduce the risk of falls in older people living in the community. **Method:** it is a literature review based on the analysis of health policies and national and international discussion of strategies for preventing falls in older people living in the community. The survey was conducted in institutional sites and documents published by the Ministry of Health and the databases MEDLINE and EBSCO. **Results:** the problem of falls in elderly people living in the community led to governments and international institutions have developed health promotion and prevention programs, issuing recommendations to professionals and elderly people. The implementation of programs of multifactorial fall prevention are effective in reducing the number of elderly who fall, to live in the community. **Conclusion:** health professionals have an important role in screening, assessment of fall risk and implementation of measures that effectively reduce the risk of falls in the elderly people, requiring the integration of these activities in their daily practice. **Descriptors:** falls in the elderly people; live in the community; health policies.

RESUMO

Objetivo: descrever as políticas de saúde de promoção e prevenção do risco de quedas nos idosos e apresentar estratégias de intervenção que reduzam eficazmente o risco de quedas nos idosos a viver na comunidade. **Método:** trata-se de uma revisão da literatura concebida com base na análise das políticas de saúde internacionais e nacionais e na discussão de estratégias de prevenção de quedas nos idosos a viver na comunidade. A pesquisa foi realizada em sites institucionais e documentos publicados pelo Ministério da Saúde, e nas bases de dados EBSCO e MEDLINE. **Resultados:** a problemática das quedas em idosos a viverem na comunidade levou a que Governos e Instituições Internacionais tenham desenvolvido programas de promoção e prevenção, emanando recomendações dirigidas aos profissionais e aos idosos. A implementação de programas de prevenção de quedas multifactoriais são eficazes na redução do número de idosos que caem, a viverem na comunidade. **Conclusão:** Os profissionais de saúde têm um papel muito importante na triagem, avaliação do risco de queda e implementação de medidas que reduzam efectivamente o risco de queda nos idosos, sendo necessária a integração destas actividades na sua prática diária. **Descritores:** quedas em idosos; viver na comunidade; políticas de saúde.

RESUMEN

Objetivo: describir las políticas de promoción de la salud y prevención de riesgos de caídas en los ancianos y proporcionar estrategias de intervención que reducen eficazmente el riesgo de caídas en personas mayores que viven en la comunidad. **Método:** se trata de una revisión de la literatura basada en el análisis de las políticas de salud y el debate nacional e internacional de las estrategias de prevención de caídas en personas mayores que viven en la comunidad. La encuesta se llevó a cabo en los sitios institucionales y de los documentos publicados por el Ministerio de Salud, y las bases de datos MEDLINE y EBSCO. **Resultados:** el problema de las caídas en personas mayores que viven en la comunidad llevó a los gobiernos e instituciones internacionales han desarrollado programas de promoción y prevención, la emisión de recomendaciones a los profesionales de la salud y los ancianos. La implementación de programas de prevención de caídas multifactorial son eficaces para reducir el número de ancianos que se caen, a vivir en la comunidad. **Conclusión:** profesionales de la salud tienen un papel importante en la detección, la evaluación del riesgo de caída y la aplicación de medidas que reducen eficazmente el riesgo de caídas en los ancianos, que requieren la integración de estas actividades en su práctica diaria. **Descriptores:** caídas en los ancianos; vivir en la comunidad; las políticas de salud.

¹Nurse. Master student in Community Health Nursing at Escola Superior de Saúde do Instituto Politécnico de Beja. Unidade de Cuidados na Comunidade de Ferreira do Alentejo, Agrupamento de Centros de Saúde do Baixo Alentejo, Portugal. E-mail: carla.espada@hotmail.com;

²Professor Coordinator, Master of Science in Nursing, Ph.D. student in Social Gerontology at Universidade da Extremadura, Badajoz, Escola Superior de Saúde do Instituto Politécnico de Beja, Portugal. E-mail: mm.pereira@ipbeja.pt

INTRODUCTION

The population aging is a reality to the whole world and according to OMS¹ the number of individuals who are more than 65 years old goes to duplicate in the next five decades, what will take that the illnesses associates to the aging assume excellent ratios. To the similarity of other countries, Portugal has registered a great growth of the aged population. According to the National Institute of Statistics² in 2009, 18% of the resident population in Portugal had equal age or superior to 65 years and for 2020, it foresees that the ratio of aged increases for 20,6%.

“The changes of the demographical and social tendencies make it imperative to answer the complex and increasing necessities of care of the health of our seniors and their families”^{3:350}.

One will say that this challenge makes responsible and appeals to the health services, nominated to the Primary Cares of Health, to implement and to improve the communitarian strategies and interventions, mobilizing resources and giving answers that satisfy the necessities of this population. The nurse specialist in communitarian health, is, then, more enabled to identify these necessities, competing to it to plan and to execute shares and interventions of nursing that prevent or answer to the problems, with sight to the maintenance of the independence and exercise of the aged autonomy of/the family/group/community, harnessing its capacities and mobilizing the adjusted resources more, of form to occur profits in health.

In accordance to the National Program for the Health of the Aged People “the aging can be defined as the gradual process of change of the biological, psychological and social structure of the individuals that, initiating itself exactly before the birth, develop throughout the life”^{4:5}.

The human aging is thus a gradual, irreversible process and uncontrollable of decline of the physiological functions, that does not result, necessarily, in incapacity, but to the measure that the person ages, the hypotheses to suffer injuries provoked by accidents increase. Amongst of the accidents the falls are distinguished, as the more serious and more frequent domestic accidents between the people oldest, constituting a threat to the autonomy of aged a time who can affect its functional capacity. Some studies evidence that approximately 30% of the aged ones with more than 65 years who live in the community fall a time per year, values that increase in people since 75 years. It enters 20 to 30% of the aged ones who fall, suffer some type of injury that reduces its mobility, independence and increases the risk of premature death of the seniors who are

more than 65 years who live in the community.⁵⁻⁷

In Portugal, in accordance to the System Domestic Accidents and Leisure - Adequated Information (ADELIA) in the year of 2005, had verified 32330 domestic accidents and of leisure, of which 2768 had happened in people with superior age than 75 years old, being the main mechanism of injury the “Fall”, with 89,7%. Being that 30.6% of the accidents had occurred in people of the masculine sex and 69.4% of the feminine sex. On the other hand, still according to this system, it is verified more than that the place of more frequent occurrence of these accidents was the “house”, in particular for the people who are more than 75 years old.

The risk of fall increases significantly with advancing of the age, what it places this event as one of the great problems of which had public health to the expressive increase of the ratio of aged in many countries of the world. The security of the aged ones has been thus a reason of concern for the society, that took the one that World-wide and National Organizations have developed politics, plans and programs that emanate recommendations and directions that aim the promotion of this problematics.

The falls cannot be considered an inevitable event of the aging, a time that its causality is multifactorial, intervening some factors of risk, that they can be modified or even though eliminated.

Many studies demonstrate that programs of prevention of falls can be efficient in the reduction of the number of people who fall. However, these programs of the seniors who live in the community, to be efficient, must include multifactorial interventions^{5,6,9}.

Although all the efforts that have been developed, this still is an increasing problem with disastrous repercussions for the aged people, what translates the loss of its autonomy and increase of its dependence, reflecting itself in high costs for the society.

With the making of this article it is intended to know the Portuguese reality on this problematics and to present efficient strategies that congregate consensus, found in analyzed literature.

The relevance of the present article is due to the possibility to transmit to the reader a general idea of the health politics adopted in Portugal which aim the promotion and prevention of falls in the aged population; as well as the one to stimulate the reflection of the health professionals on these questions in order to awake them for the importance of

the evaluation of the risk and the postponed implementation of interventions, when to give cares to the aged ones, either in the domicile either in the services of health.

OBJECTIVES

- To describe the national politics of health inherent to the falls in the aged ones.
- To present strategies of intervention that efficiently reduce the risk of fall in this population.

METHODOLOGY

It is about a revision of the literature, which allowed the document analysis of the Portuguese Health Ministry which had authorized the knowledge of the content of the national programs of health which aim the promotion and prevention of the domestic accidents and leisure in the aged ones, constituting the base of necessary knowledge to the health professionals so that they can in its workstations develop shares that aim the effective reduction of this problem of health. Available reports and documents in institucional sites of the Health Ministry of Portugal had been used, considered excellent for the boarding of the thematics in question.

The remaining research was carried through in the databases EBSCO, MEDLINE by means of the use of the following describers of reference: falls in aged; to live in the community; health politics. As inclusion criteria classic and actual studies that turned on thematic “the Falls of the Aged living in the community”, with relevance for international the national organizations had been had.

Of the analysis of consulted publications, Fall can be defined as “the not intentional displacement of the body for an inferior level to its initial position, with the incapacity of correction in skillful time, determined for multifactorial circumstances that compromise the postural stability.”^{10:45} Thus, an accidental fall is that only event that hardly will be turned to repeat and elapses of an extrinsic cause to the person, in general for the presence of a factor of ambiental risk. In turn, an express recurrent fall the presence of intrinsic etiologic factors, as the chronicles illnesses or the polimedication, among others.¹¹

In the seniors becomes important to divide the determining factors of the falls into two groups:

- Factors of risk or predisponers: they are those that impose to aged the greater

hypothesis to try falls and can be intrinsic or extrinsic;

- Causal factors: are the etiological agents present in the determination of the occurrence of a specific event of fall, that is, they constitute the reasons that had taken the aged one to fall and are potencialized by the intrinsic and extrinsic factors of risk¹¹.

The intrinsic factors of risk include the related physiological alterations with the aging, illnesses and effect caused by the use of medicines.^{5,6} Thus we have: previous history of fall; age; feminine sex; medicines; physical condition; riot of the march and balance; sedentarism; nutricional deficiency; cognitive decline; visual deficiency; orthopedic illnesses; functional state^{5,6}.

By its side, the extrinsic factors say, in respect, to the social and ambient circumstances and include: inadequate illumination; slippery surfaces; untied carpets or with folds; high or narrow steps; obstacles in the way; absence of railings in corridors and bathtubs; inadequate footwear; wide and long clothes; inadequate furniture (too much high or low, with wheels); carpet absence of security in the bath; aids techniques in bad form of conservation or inadequately used; it badly saw conserved public or with irregularities.^{5,6,11-2}

The etiology of the falls in the aged ones is in general multifactorial, where the risks depend essentially on the frequency of the exposition to the unsafe environment and of the functional state of the aged one.

The falls in the aged people can lead to some types of consequences: physics, that make it difficult the daily activities of life and greater death risk; psychological, that they can be related to the syndrome of the “fear to fall”; economical, that generate costs for the aged one, for the family and for the society; and social, that can make it difficult the interaction of the aged ones with other people outside the domestic environment.¹³⁻⁴

The fall risk increases linearly with the number of risk factors. Thus, in case that if it obtains to eliminate a risk factor, the fall possibility also is scrambled. The strategies of prevention to implement must happen in the passive factors of risk to be modified or exactly eliminated, guaranteeing the effective reduction of falls.

Associated to these literary findings that contextualize the subject, there are the real numbers that place the problem of the falls in the aged ones with an one of phenomena most frequent between this population, being

currently important problem of Public Health the world-wide level, not only for the increasing incidence of this accident, but, also, for the raised morbidity and mortality that it provokes.

In accordance with WHO¹⁵ approximately 28 to 35% of the people who are 65 and more years old fall each year, increasing by 32-42% in the individuals who are more than 70 years old. From it is deduced that the frequency of falls increases with the age and level of fragility.

One study¹⁶ carried through in Latin America disclosed that the ratio of older adults who fell each year varies by 34% in Santiago, by 29% in São Paulo and 24% in the in Havana.

In Portugal, in the year of 2001 a study whose aim was to obtain informations about some aspects related to the health of seniors, between which the morbidity by domestic accidents and of leisure. One evidenced that in the preceding year to the inquiry, studied 8.4% of the aged ones had related to have suffered at least a domestic accident, being that the majority was falls (85.2%).

Of the total of victims 74.5% they had had that to appeal to a service of installment of cares of health. It standes out despite the ratio highest of accidents was observed in the feminine sex. Still in Portugal the accidents registered through System ADELIA in 2005 that they had had with mechanism of the injury the "Fall" had represented 89.7% of the accidents that had occurred in individuals who were 75 or older.⁸

Ageds that fall a time have the two three times more hypotheses to fall again in the following year. The falls are the cause most frequent of hospital internment for traumatic injuries, being responsible for 40% of the internments of aged. Approximately 10-20% of the falls results in fractures, being that the majority of the fractures (85%) occurs in house and only 25% of the fractures are caused by ambient risks of the proper house.¹⁵

In Portugal, in 2005, the type of the most frequent injury in the age group of the 75 and more years was "Official corruption, bruise, hematoma", with a value of 58,5%. The related place of occurrence more in the domestic accidents and of leisure was the "house", in particular in the individuals who were 75 or more years.⁸

A study carried through in the previous year on the security in living it disclosed that the factors that translate exposition to the risk of domestic accidents are maximized in the units of lodging with individuals of 65 and

more years or whose average of ages is higher. In this study it was also verified that the more low it was the scholar level, greater was the percentage of factors favorable to the occurrence of accidents.

The falls cause thus direct costs related to the treatment and/or internment, but also indirect costs associated to the loss of productivity of those who take care of these aged ones. They still contribute many times for the admission in a home of aged, in consequence of the limitations that they provoke in the daily activities of life of this age group. Before this scene, World-wide and National Organizations had developed politics, plans and programs that emanate recommendations and lines of direction that aim at the promotion/prevention of this problematics. One of the politics of Health most excellent is Health 21 for the European Region of the OMS that has as objective unique and constant to reach a complete potential of health for all, having as primordial purposes to promote and to protect the health of the populations throughout all its life, as well as reducing the incidence of the main illnesses, injuries and alliviating the suffering that they cause¹.

To age with health, autonomy and independence, the most possible time, constitutes therefore a challenge to the individual and collective responsibility. In this line, the express goals in this document and that they go to the meeting of this problematic one are:

- Goal 5: "Healthful Aging" aims at the preparation of the people for a healthful aging, "through the promotion and of the protecção of the health, systematically gliding throughout all life" .1: The 14 social and educative chances that improve the health contribute to improve the health, auto-they esteem and the independence of most aged. In accordance to the same source, the innovative programs are important that keep the physical force and correct the losses of vision, hearing and of mobility before these transform the aged one into a dependent person.

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The social services and of health to the level of the communities must provide direct services that support the aged ones in the daily life. Its necessities and desires in relation to the lodging (...) they must be had each time more in account. ^{1:14}

- Goal 9: "To reduce the injuries for violence and accidents", it intends an

improvement of the measures of prevention. "To reduce the injuries by violence and accidents it demands (...) the rigorous reinforcement of the well known measures of prevention, that can prevent the accidents in the roads, at work and house"^{1:17}.

- Goal 13: "Healthful places", according to OMS the taken actions for handle for a more healthful life better have resulted if to happen systematically in the places where the people live and work.

The house is the place where the people pass most of their time. In the context of the agricultural and urban planning, the house had been projected and constructed of compatible form with the sustainable health and environment.^{1:20}

The elderly must be able to usufruct adequate adaptations to its necessities of health, as it is the case of steps, disposal of diverse objects of the house (chairs, banks, tables). The nurses of communitarian health for having cited to this familiar context, in home visits, can be good catalysers in the share of the health.

- Goal 14: "Multisectorial Responsibility for health" relates that for an excellent development of the health it is necessary that all the sectors of the society are made responsible by the impact in the health of the people. In case of an aged one who inhabits in a place with many steps and if has an accented reduction of the visual acuity or needs instrument of aid in the locomotion, the fall risk increases, then the intervention of other sectors is necessary (social and economic for example). All the sectors of the society must recognize its importance and how much they are beneficial to promote and to protect the health.¹

Reporting for Portugal, and associate to Health 21, the Plan National of Health 2004-2010¹⁹ meets, which recognizes that the accidents and its consequences, when they occur in more aged people, are an important cause of morbidity, incapacity, dependence and mortality. Presenting as strategical orientations and interventions:

- ♦ Investment in the information of the aged population on the way to deal with the more frequent situations of illness, measures of prevention of falls and on the active aging;

- ♦ Promotion and development, intersectorially, of enabling environments of autonomy and independence of the aged ones;

- ♦ To inform the population-target and to guide the health professionals technically due

to the detection and elimination of architetonc barriers,

- ♦ Better articulate the cares of health with groups of support of the civil society and with services given for other ministries.¹⁹

In turn, of the National Plan of Health 2004-2010 some programs are part of which we detach the National Program for the Health of the Elderly⁴ People and the National Program of Prevention of Accidentes²⁰, as being the ones that they approach this thematic one more concretely.

The National Program for the Health of the Aged People seats in three basic pillars: "promotion of an active aging, throughout all the life; bigger adequacy of the cares of health to the specific necessities of the aged people; promotion and enabling environment intersetorial development of the autonomy and independence of the aged people."^{4:15} Being that the enabling environment promotion integrates the prevention of domestic accidents and leisure. And was in this direction that in the International Day of the Aged People in 2008, the Health department published an official document on the Prevention of the Domestic Accidents with Elderly People²¹, which presents measured specifics for the prevention of falls in the aged ones directed the health professionals, but also to proper aged ones.

The National Program of Prevention of Accidents²⁰ considers a boarding of public health for the promotion of the security, the national reduction of the accidents and its consequences in joint with other programs and strategies, that converge to the same objectives. The development of this program implies the envolvment and the partnership with diverse public entities, as well as the support the existing projects and the activities of the civil society in promotion substance and adoption of safe behaviors for the communities.

Portugal also participates in diverse projects that are to be developed internationally, of which it detaches:

- European Net for the Security of the Aged People - European Network will be Safety among Elderly (EUNESE)²², that it developed a Strategical Plan for the Prevention of the not intentional Accidents, that defines the priorities for Europe;

- Project of Prevention of Falls - Prevention of Falls Network Europe (ProfANE)²³, under coordination of the University of Manchester and with the support of the European Commission, that from the study carried through on the improvement of the

postural stability of the aged people in the prevention of the falls produced a set of good materials on practical preventive;

- Project of the OMS "Cities Friends of the Aged People"²⁴, which intends to stimulate the cities for the development of multisectorial actions that lead to the urban environment implementation, friends of the aged people. This project is part of the survey of the necessities felt for the aged people and of its active participation in the improvement of domestic and urban environments.

In July of 2011, the General Direção of the Portuguese Health and the Foundation Mapfre had celebrated one protocol²⁵ of contribution for the development of a campaign of prevention of domestic accidents intitled "With More Care" developed by this Foundation and directed to the population of 65 and more years old, with the objective to sensetize the importance of the domestic accidents. Of this campaign are part a set of educative resources destined to aged and the professionals, and also the formation of health professionals.

The taken handle of the inquiry in this area allowed to identify the best strategies for an efficient prevention of the risks of fall in the aged population to live in the community. These strategies pass for:

- Selection and evaluation of risk of falls, in particular in great aged ones;
- Retraction of information on clinical history (history of falls, therapeutical medical, history of excellent factors of risk (acute and/or chronic illnesses);
- Physical examination: detailed evaluation of the march, the balance and muscular force of the inferior members, neurological function, cardiovascular status; evaluation of the visual acuidade and examination of the feet and footwear;
- Functional evaluation: evaluation of the daily activities of life (abilities) and of the perception that the aged one has face to its functional capacity related to the fear to fall;
- Ambient evaluation: security of the house and exterior spaces.
- Avaliação Ambiental: segurança da casa e espaços exteriores.^{5,9}
- From these evaluations a set of direct interventions will be able to be developed on the factors of risk identified and passively to be modified/eliminated. These interventions are, in its majority, multifactorials and can include:

- Adaptation or modification of the domestic environment;
- Suspension or minimization of psychoactive medicines;
- Suspension or minimização of other medicines;
- Lapsing of supplements of vitamin D to the elderly people with proven vitamin deficiency D;
- Management of the postural hipotension;
- Management of problems in the feet and footwear;
- Physical exercise, in special exercises of balance, force and trainings of march^{5, 6,9}.

To obtain the desired results, that is, the effective reduction of falls in the aged people is imperative that the health professionals integrate in daily practical its evaluation of the risk of falls in this population and the implementation of the necessary measures to each identified situation, going to the meeting of the existing and provely efficient recommendations.

CONCLUSION

The aging of the population demands new strategies in the health services that answer effectively to the real necessities of this population. The falls in the aged people are an important problem of public health that has worried World-wide Governments and Organizations, which have looked for to define strategies consensuals of promotion and prevention of this problem.

In Portugal, this problem also is a reality and the Government has followed and participated in diverse international projects and emanated programs that they look to fight this reality.

All these efforts demand a fixed action of the various sectors of the society. In the health services, in particular, it is imperative that the health professionals effectively integrate in the installment of cares to the aged population the selection and evaluation of the fall risk and posterior implementation of the efficient measures of prevention, calling to participate other sectors of the society whenever the situations justifying.

In the communitarian health to work in partnership and joint with the various sectors of the community is rock key for the attainment of the desired results. Therefore as it relates the National Program for the Health of the Aged People, "To obtain to live the more possible time of independent form,

in its half habitual one of life, it has of being an individual objective of life and a collective responsibility stops with the aged people”^{4:6}.

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Corresponding Address

Maria Manuela Narciso Pereira
Escola Superior de Saúde
Rua Dr. José Correia Maltez, 7800-111
Beja, Portugal