The prevention of falls under the aspect of health promotion

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ABSTRACT: The concept of health has been changing, now reaching the idea of health promotion and quality of life. This new paradigm makes it possible to consider more efficient strategies. We allocated the focus on the problem of falls became since epidemiological data show its significance in many parts of the world, not resuming to a particular social class, ethnicity or gender. The increase in life expectancy asked for public policies for the improvement of the quality of life of that population. Elderly fall is a public health problem that needs to be better studied. To reduce the incidence of falls we emphasize prevention, protection and education which are strategies from the principles of health promotion. In some developed countries, we can find official public health programs for the prevention of falls. But here in Brazil not many steps have been done towards this. The aim of this article is to show the importance of the prevention of falls and reinforce the need of enlarging its context, as in: elderly associations and retirees institutions; centers day; hospitals; schools; and ambulatories. We present a project that takes into account the leisure and entertainment as a cultural and pedagogical strategy inserted in health education.

Keywords: Health, Aged, Health of the Elderly, Accident Prevention.

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INTRODUCTION

Health promotion comes at the end of the eighties as a set of ideas that suggest changes in lifestyle of the most diverse strategies, which concerns, among others: a) public policies; and b) the creation of new social networks that allow intervene in collective health. Do not resuming only to think about the individual aspect, to have or not health, we should take clear that health promotion is presented as a response to the medicalization of traditional health1. Fruit of the contemporary health discourse, should be recognized the lack of homogeneity, as regards the strategies that are employed, as the ideological principles that give it support. We consider in the text a fundamental contribution of the educational field to accommodate the basic promotion principles, which also includes the protection and prevention. In particular, we focus on discussing the problem of falls that occur in older people.

The falls, by itself, has come as a big problem. But when it observes the elderly segment, it appears that this takes even greater problem. The reflexions that we bring in this article consider not only the importance of the fall, but also a speech that should not involve only the group at greatest risk, but primary act with other groups.

Even knowing that the younger falls too and that the practitioners of various types of sports absorb these falls as something normal, becomes the cause of our concern that the falls will happen to those who have more fragile bones, usually older people2. Which the falls entail major consequences regarding the health. Speaking in falls is to consider the reasons that lead people to fail to maintain a certain posture and stability, both by intrinsic as extrinsic causes, just falling. From immediate, sustains the record that it is significant that, every three people over sixty years, one of them fall at least once a year.

The large rate increase of people considered elderly in our country that already accompanies what is occurring at the global level, noticed the profound changes in the population pyramid in decades, from the phenomenon of demographic transition that some years ago reaches several developed countries3. In the public health field we are supporters of proposals involving the most diverse segments, which lead the individuals to the collective thinking, including the environment where we live, the idiosyncrasies of an unequal society, the importance of associative involving, and among others, the constant vigilance and involvement in decisions that are transformed into public policies.

Assuming that many fall episodes can be prevented by simple measures, the purpose of this article is to suggest the resolution of the problem in the incidence of falls through programs that are aligned with the ideology of health promotion. After outlining a brief profile of the problem of falls in the elderly, include the falls and especially those that occur with those who are considered elderly, as a public health problem. Ending our approach, commenting on the programs that are being used in order to build awareness and minimize the falls problem.

The concept of health

About the trajectory of the concepts about health, from the more archaic to the positions taken in contemporaneity are found in a comprehensive search. It is observed that since the sense was given by the language, in the institutions of our society and in the structures of our psyche4. These authors sought to establish the representations of the meaning of health, and their functions in society. At the Paris symposium, held in 1985, was presented the argument that “the meaning of health is so poorly understood by...
health professionals as by the users. For the first ones, health is generally perceived as a target itself, a goal to be achieved. For the last ones, it is, above all, a way to achieve broader objectives that take into consideration the life quality, and that it is not often considered as priority.  

For a long time, it was understood health as something exclusive to the medical sphere. However, some researchers, realizing its complexity, began to see it as something broader. Were described two models of health, a more traditional model and an old model, and others more progressive. The medical model is the first, and was scaled coming from what is considered as a global model. The medical model is considered closed, with the diseases being understood as something fundamentally organic, affecting the individual, and needing to be diagnosed and treated by doctors (curative approach). But the other model would be considered as open: in it, the disease would result of complex, organic, human and social factors, affecting not only the individual, as the family and the environment. Its effect would require a continuous approach, from prevention to retraining, which takes into account the organic, psychological and social factors. The intervention is no longer exclusive of doctors, but for health professionals, who must act in cooperation, in an open and interdependent system with the community.

Thus, health, as opposed to the disease, has anymore make sense, because in the decade of 40 that opposition was seen as simplistic and reductionist, and replaced by another approach, which for many years has been frequently referenced: health no longer being “just the absence of disease or infirmity, but a complete physical, mental and social well-being”. But this concept was subject to criticism: considered too pretentious, utopian and perhaps, even unreachable. The current observation shows that the concept of health varies according to the individuals, the civilizations, and the ages. The concept of complete state of physical, mental and social well-being, that would be the same for all people, is an abusive generalization, so the importance of thinking it coming from other meanings. The ‘health’ term is a blind-point for epidemiological science and discusses the need of a new definition of health in concrete societies, for the enrichment of research and practice of Public Health.

The Health field includes: the human biology (age, gender, life cycle and genetic inheritance), environment (includes the physical, socio-economical and cultural); lifestyle (personal hygiene, diet, physical activity, sexual behavior and others); and health services. It is considered that the medicalization of health exercises a form of social control that is presented as ‘repository of truths’. The process known as medicalization, treat of four aspects: first, on what is considered relevant to the practice of good medicine, then the retention and control of certain technical procedures, and thirdly, the appropriation of knowledge of certain areas, and finally, that is interested to us to discuss, what in medicine is considered as a contribution to a healthy lifestyle. With the dissatisfaction of the concept of health considered negative, there were other ways to address the issue, and a new concept of health promotion that sought to advance this discussion.

The health promotion as a new paradigm

The concept of individual health plus the community health, which opens room to question the health policies purely and simply aimed an extension of life, without being concerned the effective conditions for such life quality. In a new concept of health, the overall model is now seen as educational, with distinct characteristics.

Taking into account that health depends on physical, psychological, social, cultural and environmental factors, interdisciplinary work becomes essential for health promotion and the ‘educator’ now has a relevant role in this work. As now the equal powers of the educator and the individual, it is considered that the first has specific knowledge on health and may provide subsidies to help individuals. It is then up to decided if they follow the recommendations or not.

Certainly exist criticism and today there are various interpretations of what is meant as ‘health promotion’. But one thing seems to be consensus: it must be part of a process that gives people the means to ensure greater control over their own health and interfere with possible improvements. This concept, which incorporates the health education, is beyond the simple nature of certain preventive campaigns.

Health promotion is defined as “the process of empowerment of the community to act to improve their quality of life and health, including greater participation in the control of this process”. The objective of health promotion would then enable the “patients”, growers and professionals as “generalists” health promoters. In health promotion, programs in companies are found some common mistakes: vague and wrong goals; very ambitious goals; ignorance of the profile and need for health of the target audience; disconnection of training and motivation of the target audience; inadequate communication with the public target, and not scientifically proven interventions.

One of the indicators that served the WHO to propose actions for health promotion is the self-management health, by individuals and by groups. It is considered certain habits that can pass through activities that, often, are carried out in time for leisure. The leisure as a right is inserted in the Brazilian legislation, which, even causing amazement, the inclusion in the form of law does not decreases its relevance as another social need that allows and deserves to be included in a proposal for health promotion. This kind of understanding would prevent the occurrence of major errors in programs to promote health, which is the motivation disconnection of the target audience, resulting in lack of membership, from the participants, especially in programs that have reduced period. When ignored the importance of strong groups with significant social ‘knots’, the notion of belonging to the program provokes the loss of many people.

When talked about leisure and its double education meaning, educating by and for leisure, and its relation to health promotion, we speak of cultural animation and educational mediation strategy, in which the professional who works in the field of health promotion can find a powerful tool. By taking this option we also move to consider the professional leisure as the one who will act in the
animation field. It deserves record that the animation included in social education is already a very tradition formation in European countries. Considering the specific Brazilian, we recognize that our country presents itself as a non-specific training. The cultural promotion, while educational technology, is “based on the radical idea of mediation (which should never mean imposing), which seeks to allow more in-depth understanding about the senses and cultural meanings” 15. As proposed intervention, its field of practice becomes widespread, coming from the clinics, schools, syndicates, family, or where the educational process is present.

As it could be seen, health is now “seen as a possibility of daily life, and not as an objective of life. It is a positive concept, which set the values as individual and social resources as well as physical capabilities. Thus, it is not the sole responsibility of the health sector: it goes beyond to healthy ways of life to seek the welfare” 16.

Therefore, health promotion includes, then: education, generation of employment and income, housing, leisure and culture, transport, environment, welfare, and should coordinated its action strategies coordinated by ‘healthy policy’ 17.

**Seniors who fall: we can talk about a health problem?**

With the advance of age, greatly increases the number of falls. If 30% of American individuals over 65 fall at least once a year, 10% of them are over 80 years. It is also important to know that approximately 10 billion dollars are annually spent to treat fractures associated with falls in the United States17. According to the “Guideline for the prevention of falls in older persons”, while unintentional injuries occupy the fifth cause of death in the elderly, the falls are responsible for 2/3 of deaths resulting from accidental injury18.

These data do not differ of what has been observed in Brazil19. According to the Ministry of Health, the mortality rate for falls from Brazil in individuals with 80 years or more was 14.24%, and in the range of 70 to 79 years was 5.26%. Even with respect to Brazil, we know that 30% of the elderly fall at least once a year, 5% of falls result in fractures, between 5% and 10% resulting in injuries that need medical aid. Two-thirds have chance of recurrence in six months after the fall20,21.

According to the Ministry of Health (Datasus), the hospitalizations of elderly people by falls are increasing year by year. In 2004, there was, in Brazil, 59,906 hospitalizations of elderly people because of falls. In 2005, that number increased to 61,368, and in 2006, 63,831. Of the 7,376 hospitalizations of elderly people by external causes, occurred in Rio de Janeiro between January and October of 2007, 4,737 (64%) were due to falls.

According to the Medical Information System/Ministry of Health22, between 1979 and 1995, 54,730 people died due to falls, with 52% of them (28,460), elderly. Between 1996 and 2005 the number of deaths of elderly people by falls recorded in Datasus is 24,645. It appears that in the last 10 years the falls have led to death almost the same number of elderly people of the 17 years observed by the authors. We examined 13,383 deaths and 87,177 hospital admissions recorded by the Public Health System in 2000, and conducted a study of morbidity and mortality from external causes in individuals over 60 years23. According to the authors, in Brazil, the falls were responsible for 2,030 deaths in this age group, occupying the third place of death. For morbidity, they occupy the first in the hospitalizations. We can cite as major problems resulting from falls, injuries of many different forms, focusing on the fractures, notably, the femur fractures.

It was found that the frequency of falls in the elderly is much greater than it is known. This is due to the fact that many elderly people considers the fall as something natural in their age and end up not telling the fact or the cause of the fall. Moreover, many of them choose to not report the case because they are ashamed and feeling their decadence24. Given the difficulty of reliable records, realizes the need for more epidemiological studies focused on the fall of the elderly, because certainly this problem, which now presents itself as worrying, very significant data that has long deserved receive better attention of those responsible by the policies of public health.

The risk factors related to falls in the elderly can be classified as extrinsic and intrinsic20. The extrinsic are potentially affected by environmental factors such as inadequate lighting, slippery surfaces, loose carpets, close or high steps, barriers, inadequate clothing and footwear, ill-treatment, holes and irregularities in the soil. The intrinsic factors are related to changes resulting from the aging and certain diseases, such as: postural hypotension, inadequate vertebral-block, dementia, peripheral neuropathy, transitional ischemic stroke, Parkinsonism, depression, decreased vision and hearing; vestibular, proprioceptives and musculoskeletal disorders; deformities of the feet, among others. Also, as antidepressant drugs, hypoglycemic, anti-hypertensive, are also considered as risk factors for falls in the elderly25,26.

Everyone, regardless the age, are subject to fall. However, the incidence of severity and with greater consequences for the delay in recovery, it is natural the fear from the elderly, because, certainly, they know by examples already observed, that a fall can mean failure, limitations and even death22.

When a senior suffers a fall, he becomes more weakened by the fact that, culturally, that can represent a failure, fostering feelings of vulnerability, humiliation and guilt. The physical trauma is not the only impact. We searched the direct consequences of the last fall occurred in the previous year of research. It was rated the results from the physical consequences of functional decline, the need for health service and treatment27. Among the consequences of physical order, are the fractures, skin lesions, muscle stretching, joint dislocations, sprains and cranial trauma. The ones of higher impact were: fractures, dislocations and head trauma. As for functional decline, were assessed the difficulty degree to undertake the following tasks: climbing stairs, dressing up, stand up from the chair, cutting the foot nails, walking in the street and drive a car. The authors cite that 68.1% suffered physical injuries, 23.5% used the health service, 35.3% were functional decline, had 16.7% decline in social activities outside their home, 15.2% decline in physical
activities and 17.2% needed medical treatment. There was also other aggravating as the use of multiple drugs. Finally, it was observed that depression and falls in the home were significantly associated with the decline in the function level, as a result of their last fall.

It has been found yet in the literature another result of falls, classified as ‘post-fall syndrome’. After a fall, the elderly will feel fear of further falls, which leads to a loss of confidence in the capacity to carry out routine tasks. Such sentiments produce emotional, psychological and social changes, such as: autonomy and independence losses, reduction of social activities and the feeling of insecurity and fragility.

The fact that the fall cause fractures, hospital care for the elderly dependency and, consequently cause costs, which, economically, still as one more problem, for both the family and state. To get an idea, in 1994, falls among the elderly cost approximately twenty billion dollars in the United States.

The falls end up to significantly undermining the life quality of the elderly, because it will increasingly restrict their travel outside the residence, imposing a social isolation and causing anxiety and stress. As you can see, the falls can produce physical, psychological, social and economic damage. From these comes the importance of prevention and specific programs of assistance and research on the subject.

The Ministry of Health set the agenda of Commitment for Health, which combines three elements: The Pact in Defence of the Unified Health System of Brazil (SUS), The Pact in Defence of Life and the Pact of Management. Among the macro-priorities of the Pact in Defense of Life is Promotion, Information and Education in Health, with emphasis on promoting physical activity, promotion of healthy habits, nutrition and life, tobacco control; control the alcohol excess; Special care aimed to the ageing process, not in this case, indicate the importance of the problem of falls.

Within the National Policy on Health Promotion, is the National Policy for the Reduction of Mortimortality by accidents and violence - Ordinance No 737. The basic principles that guide the National Policy are:

- health is a fundamental human right and essential for social and economic development;
- the right to life and respect ethical values shape the culture and health, and
- health promotion must base all plans, programs, projects and activities for reduction of violence and accidents.

The prevention of falls is an activity that aims at reducing accidents. Despite this apparent programs aimed for such work, making us to wonder: why?

For a real problem to be characterized as ‘public health problem’, it should be take into account their potential endemic, its impact, so much in individual as in society, and must be observed if the condition can be prevented or treated.

When an active elderly suffers a fall, He could become limited. Besides him, individually, loosing his life quality, his family ends to suffer the impact, since the previously performed activities by the elderly will have to be shared by family members. On the other hand, often, the elderly will need help to carry out their activities of daily living.

On this concept, was realized that the fall of elderly is a public health problem and that efforts should be made to prevent this event. It has been our interest to investigate and directly act with the elderly, whether or not regular fallers. We note that, typically, is suggested in various programs that seeks to prevent falls that, improve the life quality of elderly acting in various risk factors, both extrinsic as intrinsic.

Programs for prevention of falls under the vision of health promotion

The programs of prevention of falls address the fall as a multifactorial event. Generally these programs include force and balance training, intervention and evaluation of the barriers that exist in the home of the individual, vision assessment, functional evaluation and medicines review. It is very important that the professional who works with falls are aware that this is a work of health promotion and that, among the determinants of health related to the event falls in older people, we can not disregard the social determinants. The whole program of prevention must be aligned with the social determinants, is needed so to make the necessary adaptations to the profile of the group that will be worked.

It is recommended that a program of prevention of falls in older people present three main components which must be articulated: policies, research and practice. The role of policy is to provide the infrastructure and support for the integration of prevention into practice. Research is needed to base the implementation of interventions. And the practice is where the evidence is applied in accordance with standards and protocols established by the policies.

In Canada we find the training of British Columbia Falls and Injury Prevention Coalition; in the United States, the National Safety Council, the National Home Safety Council, the National Council on Aging and the Falls Free Coalition. Even in the U.S., there is a bill H.R. The 5608 Keeping Seniors Safe from Falls Act of 2006, in Australia was established the Falls National Round Table, the National Falls Prevention for Older People Plan.

In the United States was done a survey of programs for the prevention of falls in older people, whose objectives were education, environmental assessment and home modifications required in these environments. 18 programs have been cited in the following locations: Arizona, California, Connecticut, Idaho, Kentucky, Maryland, New Hampshire, New York, Ohio, Pennsylvania, Utah and Virginia. Of these programs, nine were facing elderly aged 60 or over; three limited the minimum age at 65; included an elderly of 62 years or more; two addressed to elderly aged 55 or over; one covered who had more than 18 years; and two did not have an age limit. In general, these programs consist of visits, which verified the risk of falls and are given pamphlets with information on safety. Some perform repairs on the houses when necessary, and review of medicines.
In Canada there are several programs for the prevention of falls in their provinces: Alberta, Colombie-Britannique, Manitoba, Saskatchewan, Ontario, Quebec, Nouveau-Brunswick, Terre-Neuve, Nouvelle-Écosse, Ile-du-Prince-Édouard, all presenting educative information through films, books and manuals; donations of crutches and walking sticks; assessments of the risk of falls and customized prevention programs. The ‘Short Term Assessment and Treatment Centre, Vancouver General Hospital’, for example, provides for a small group physical activities for 50min for a period of three months. The ‘Medical Equipment Loan Services’ offers walking sticks, crutches and rovers to elderly people who are resting at home, surgery or trauma. Besides the material, yet provide information on how to use it as it should. The ‘Link to Health’ is directed to independent individuals, with 55 years or more, and offers exercises for strength and endurance for over three months, one to two times a week, with duration of 10min to 15min. The ‘Education/Early Intervention Program-Falls Prevention Session’ consists of seven sessions of 45min to 60min directed to individuals aged 55 or over.

The Programme intégré d’équilibre dynamique, in Quebec, aims to prevent falls and fractures in the elderly. It consists of exercises in groups, twice a week, lasting for one hour. These exercises have focused on improving the strength of balance and proprioception. Moreover, it offered a series of exercises to be performed at home once a week, information and education, also once a week, referring to risks at home, osteoporosis, medicines. The program last for 12-week.

What is observed in these cited countries is that all have a desire to inform and sensitize the population about the causes, consequences and prevention of falls. Here in Brazil there is a strong prejudice regarding falls, with regard to the idea that the fall is normal among the elderly and that there would be a lot to do regarding that. The fall is not an usually discussed event in a medical consultation, unless it led to more serious consequences.

As noted, is common in the proposals for preventing falls: practice of physical exercise; inclusion of the discussion of the environment; home rearrangement, how to face obstacles considered as architectural barriers and access to certain sites; use of auxiliary equipment to march; special care with their feet and shoes; teach to leave the ground after a possible fall; learn how to fall. When considered the importance of the intrinsic issues from that comes from the individual, it is suggested that an accurate study includes a functional assessment of the individual, which takes into account even the total intake of medicines.

It was thinking in the characteristics discussed in this article, and especially in the absence of proposals aimed to the Brazilian population, we based to draw a proposal that since the year of 2001 is developed at the Universidade Federal Fluminense under the name ‘Prev-Quedas: preventing the falls today avoid that the next to fall to you’. Taking into account, besides the problem of falls, the new demands that are now getting older since the second half of the last century and who nows, have a different perception of what is turning old, to adopt a new attitude of how face the retirement time. This time, was reserved to rest and a passive waiting for death, has become a time of great social mobility, preferring the leisure from the practice of many different activities and, especially, with emphasis on those that containing physical exercises. Now is faced with a new way of aging, and was there that incorporates the Prev-Quedas.

Normally the incorporation of physical exercise aims to engage physical qualities that act in case of falls. As we have seen, some programs suggest that movements must be individually worked and others are a time of exercises performed in institutionalized environments. In the Prev-Quedas project, this came to fundamentally differentiate know that the proposals by the incorporation of leisure and cultural entertainment. Thus, the act allowed us act with the entertainment and pleasurable aspects. The nowadays considered seasonal aspect of the project, was only possible by its characteristic of submitting to the audience as a project that has no time to shutdown, with participants who follow the proposal since the year of 2001. Another difference is that there is the intervention strategy conducted through the use in their practical activities of elements of corporal culture. This project seeks to de-characterizing the fall as a result of the unique process of ageing, as something specific to children and it is considered its importance in the collective work and especially the one that involves several generations, without the age criterion to become the defining of who can or should participate in the project.

**DISCUSSION**

We believe that the fall of elderly is a public health problem. Thus there is a need for creation of prevention programs, a fact that is not well incorporated by the Brazilian responsible for public health. It is urgent to prioritize more in Brazil this public health problem and, in this case, enabling programs to prevent falls. In parallel, it should be the aim to train people who will act in interventions, but that should not disregard the importance of more research in the matter. As for those who will go through programs, they should be encouraged to identify the risk factors and working their body and the environment to try to reduce the risk of falls. It is important that more studies are performed for evaluation of simple tests that allow the identification of possible ‘fallers’. Above all, you must identify the profile of the group so that it can be worked all these factors, always in accordance with the social determinants of that group. It will be a set of strategies, which will conform to the ideology of health promotion, which will address better the problem thus helping the prevention work.

In this essay we try to present our concerns about the addressed themes by presenting a practical proposal. However, this will not represent very well an integrated public policy and a set of new ideas. After all, which leads to determine the height of the floors of our public transport; how goes the care of paving the public sidewalk, which determines the time of the traffic lights; what type of trees should be planted, trees that its roots do not to breach the sidewalks, how to educate young people to prepare for a healthy ageing; how to motivate elderly people to integrate themselves to a falls prevention proposal.
REFERENCES


