Health education as the main alternative to promote the health of the elderly

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Abstract  This is an integrative review aimed to identify the scientific evidence on the educational health actions designed to promote the health of the elderly. A literature search was conducted in Medline, Lilacs, BDENF, CINAHL and in SciELO virtual library databases, by crossing the descriptors Education in Health, Elderly, Aging, Elderly Health, Health Promotion and Quality of Life, including articles conducted with elderly people published from 2003 to 2013, in English, Spanish and Portuguese. Eight articles, which presented quality of life and promotion of healthy aging as a result of health education strategies, were selected. Health education actions for elderly need methodologies that attend the complexity of the aging process and correlate the factors surrounding the individual, such as beliefs, values, norms and ways of life.

Key words  Health education, Aging, Health promotion, Elderly, Quality of life
Introduction

Population aging has occurred in recent decades in every country. In developed countries like the United States and Italy, the proportion of elderly in the year 2000 reached 13% and 14.6%, respectively, and in China and India, the elderly population exceeds the average of developed countries. In Brazil, there have been changes at the top of the age pyramid, reflected by the proportion of elderly people, which had an increase from 4.8% in 1991 to 5.9% by the year 2000, and reaching 7.4% in 2010. With this transition, the average life expectancy at birth in Brazil is 74 years, which occupies the 80th position in the world ranking of the World Health Organization (WHO), in which the first position is occupied by Japan (83 years), according to 2013 world statistics.

The individual aging process leads to biopsychosocial modifications, which are associated with weakness that may cause increased vulnerability. Thus, many diseases can arise and generate limitations for the elderly. Health professionals are inserted in this context, in order to promote the health of the elderly and obtain a healthy and active aging process, as advocated in public health policies. Health promotion aims at reducing vulnerability and risks to the population’s health through participation and social control. Active aging focuses on optimizing opportunities for health and participation in social, economic, cultural, spiritual and civil issues, as well as security, in order to improve the quality of life of older people and increase healthy life expectancy.

Therefore, healthy aging promotion strategies are used, which must be anchored in health education that provides the individual’s participation in groups, favours the increase in control of their lives, transforms the social and political reality and empowers them in decisions about their health. Health education is an activity to be developed by health professionals, such as nurses, who play the biggest role in this process, which establishes the dialogical-reflexive relationship between professional and client and aims to raise awareness about their health and the perception as active participants in their life transformation.

In this perspective, health education is understood as practice for the transformation of individual and collective ways of life and, consequently, promoting quality of life and health. Thus, it is necessary to know the health education strategies that are being used with the elderly in order to identify certain gaps about the aging process, such as the lack of studies on activities carried out in health services that meet the needs of elderly and seek to promote health. This, therefore, the objective of this study is to identify the scientific evidence on the educational health actions aimed at promoting the health of the elderly.

Method

This study constitutes an integrative review seeking to gather and synthesize the results of studies on a specific theme, in a systematic and orderly manner, to enable the deepening of knowledge on the subject investigated and provide a synthesis of several published studies and general conclusions for a particular study area.

In carrying out this review, the following steps were used: theme identification and preparation of the research question, establishing criteria for inclusion and exclusion of studies, definition of information to be extracted from the selected studies, assessment of studies included in the integrative review, interpretation of results and synthesis of knowledge.

Data collection occurred from August to October 2013 and was conducted through online search of articles answering the following research question: What is the scientific evidence on health education practices aimed at promoting the health of the elderly? A person aged 60 or over was considered elderly, as defined in the Elderly Statute.

The collection of articles was performed through the Virtual Health Library (VHL), in which the International Literature on Health Sciences (Medline), Latin American and Caribbean Health Sciences (Lilacs) and Databases in Nursing (BDENF) databases were used. The Cumulative Index to Nursing and Allied Health Literature (CINAHL) and the Scientific Electronic Library Online (SciELO) were also used.

The descriptors used were Health Education, Elderly, Aging, Health of the Elderly, Health Promotion and Quality of Life, and its standardized translations in “Descriptors in Health Sciences” (DECS). Initially the search for articles through the descriptor “Health Education” was performed and later the descriptors crossing was done, namely: “health education”, “elderly” and “health promotion”; “health education”, “aging” and “health promotion”; “health education”, “health of the elderly” and “health promotion”; and then changing the descriptor “health pro-
Inclusion criteria for sample selection were established for articles published from 2003 to 2013, in English, Spanish and Portuguese, available in full and conducted with elderly people specifically. The choice for publication period is justified by the finding, based on the literature search, that research in the field of health education and promotion of health of the elderly is most significant from 2003, the year of the Elderly Statute's creation. Reflection papers and experience reports, systematic and integrative reviews, dissertations, theses and newspaper editorials without a scientific character were excluded. Those duplicated in more than one database were considered only once. After the application of the criteria and search refinement from reading the summaries of pre-selected items, the sample was restricted to 11 articles.

A validated instrument was used for data collection, contemplating article identification, introduction and objectives, methodological characteristics of the study, results and conclusion\(^1\). Thus, it was possible to assess the studies' methodological rigor and the levels of evidence of each article. Levels of evidence are evaluated hierarchically according to the study's methodology, which are divided into: I) meta-analysis of randomized controlled clinical trials; II) cross-sectional study; III) quasi-experimental research; IV) non-experimental, descriptive or qualitative methodological approach studies, or case studies; V) case reports or systematic obtained data, with verifiable quality or program evaluation study; and VI) expert opinions\(^5\).

For the analysis and evaluation of the selected articles' methodology relevance and appropriateness, an instrument adapted from the Critical Appraisal Skills Programme (CASP) was used, which was previously validated\(^5\), covering the following contents: clarity in identifying the objectives, adequacy and presentation of the methodology, adequacy of sample selection, detailed data collection and the relationship between researcher and participant, compliance with ethical aspects, rigorous data analysis, presentation of results and discussion and importance of research. In this study, a choice was made to select papers that answered at least 70% of the questions, therefore considered as having good methodological quality and reduced bias. Please note that the studies' analysis and evaluation were performed by two evaluators. Therefore, after the methodological evaluation, this study sample consisted of eight articles.

For results synthesis and presentation, an instrument that contains article identification, database, level of evidence, year, goals, method, health education practices and main results was used. From studies analysis and full reading, the emerging thematic categorization of the articles sample results was made: 1) Quality of life as factor resulting from health education; and 2) Health promotion through Health education.

Results

The literature search in Medline database showed 713 results that were reduced to eight articles, after selection according to the criteria defined in this study. In the Lilacs database, 56 results were returned, of which three were eligible for this study. In the BDENF database, 10 results emerged, two of which fulfilled the criteria. In the CINAHL database, 842 publications emerged, 14 of which were suited to this study. In the SciELO virtual library, 30 results were found, which was reduced to nine articles. From the 36 selected articles, three did not achieve satisfactory methodological accuracy and 25 were duplicated, appearing in two or more databases. Therefore, eight articles remained, which were analysed in detail.

From these eight articles, four were published in Portuguese\(^16-19\), three in English\(^20-22\) and one in Spanish\(^21\). Among the countries where the studies were conducted are Bangladesh, Mexico, Japan, Spain and Brazil. The majority of articles can be considered up-to-date, as five were published from 2009.

In relation to the study method, five articles are quantitative and three qualitative. As for the evidence strength, two articles of evidence level II (a clinical trial and a study of repeated measures), two of evidence level III (quasi-experimental), three of evidence level IV (two action research studies, one descriptive study) and one evidence level V (programme evaluation) were identified.

In the studied scientific publications, the educational activities on health aimed at promoting the health of the elderly were represented by educational programs on physical activity, nutritional status and social support\(^23\) with lectures, advice, exercise classes\(^21\) and functional kinetic exercises\(^16\) with an elderly group. These programmes also used popular health education to
discuss topics of interest to seniors; workshops with directions and recommendations on physical activity and eating habits, through lectures, presentations, case discussions, dialogued lectures, cutting and pasting, brainstorming, role playing and discussion forums; group counselling; use of performing arts and distribution of posters and leaflets. The synthesis of publications is described in Chart 1, where the studies were identified by the authors, in ascending order of level of evidence.

The themes of the articles that comprised this study’s sample include health education related to quality of life, active aging and health promotion, covering the descriptors used in data collection, which confirms the articles’ adequacy to the topic under study. The division of the studies according to thematic category is shown in Chart 2.

Discussion

Quality of life as factor resulting from health education

The process of aging with quality of life is a consequence of living without disabilities, with autonomy to perform duties, which provides economic and cultural independence to the elderly. In this context, quality of life is understood as the individual’s adaptation to the environment they live in different times and social cultures.

Authors state that physical activity is one of the main factors for promoting the quality of life in old age, as it is effective for all populations, improves health and facilitates social contacts, providing it is adapted to the subject age group. This study, conducted in the city of Patos/PB, found that elderly people who exercise regularly, maintain social lives and are mentally active could guarantee their independence and live with a good quality of life level.

These results may have been positive due to the interaction between physical activity, social life and mental health, as per encouraging physical activity as a health education action, the interaction of the elderly with others and mental activities through active participation are promoted. In addition, the literature mentions that physical activity can contribute to the improvement of daily living activities and emotional well-being, as well as having an impact in the perception of quality of life.

Another study that used physical activity as a means to improve the quality of life in old age was conducted in the Chandpur district, Bangladesh, and aimed to examine whether the adherence of health education intervention activities helps to improve the overall quality of life and their specific dimensions. The aspects used in the intervention included physical activities and recommendations on dietary habits, which were addressed through groups and workshops, as well as posters and leaflets. The social aspect was also addressed, promoting the realization of popular theatre, with documentary videos, workshops and meetings of community groups. The results showed that adherence to proposed activities contributed to improving the participants’ quality of life.

Although this study has shown positive results in terms of improved quality of life in participation in activities, the literature cites the low prevalence of counselling for physical activity for adults and seniors in basic health units, which is worrying due to the possibility of professional-client interaction in these services, besides the understanding that the health counselling practice is associated with health education and all health professionals’ practice.

Corroborating these findings, a study in Japan found that an educational program focused on knowledge and exercise can improve the quality of life. Among the performed actions, the feedback to the elderly on results of initial tests can be highlighted, enabling the elimination of emotional stress and encouraging the search for strategies to deal with health conditions and increasing the level of health care knowledge and elderly self-efficacy, essential for quality of life.

The feedback has a motivating function for the receiver, especially when it is positive and can serve as a strategy to be used nested in educational health activities, as it will provide information to the elderly about their current state of health and can cause positive changes in their lifestyle.

The results also suggest that educational programs can improve the perception of health and vitality of the elderly, but the number of comorbidities may interfere with the effects of education and exercise programs. However, health education activities, especially those carried out in a group, can contribute to the health of the elderly with comorbidities, promoting their health and preventing diseases. The need to focus on educational programs for elderly with morbidities is perceived, understanding that these practices can benefit the health of these individuals and not considering that comorbidities may affect performance and results.
Chart 1. Summary of results for the variables: authors, year, database, level of evidence, objectives, method, health education practices carried out and main results.

<table>
<thead>
<tr>
<th>Authors / Year / Database / Level of Evidence</th>
<th>Objectives</th>
<th>Method / Educational practices carried out</th>
<th>Main Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zabalegui et al. 2006 MEDLINE II</td>
<td>Determine the efficacy over 12 months for the Self-Care Education Programme for the Elderly (PECA) on quality of life, nutritional status and perceived social support of people over 65 who live in their own home.</td>
<td>Randomized clinical trial. Educational programme on physical activity, nutritional status and social support. Intervention study.</td>
<td>Significant differences were found statistically between pre- and post-intervention observations on nutritional status.</td>
</tr>
<tr>
<td>Rana et al. 2009 MEDLINE II</td>
<td>Examine whether adherence to health education intervention activities contribute to improving the overall quality of life and its specific dimensions.</td>
<td>Counselling, group meetings and workshops with directions and recommendations on physical activity and eating habits and distribution of posters and leaflets.</td>
<td>In the noncompliant group the odds of higher scores were less likely on overall quality of life. Among the control group, higher scores were less likely on physical, spiritual, social, environmental and overall quality of life dimensions.</td>
</tr>
<tr>
<td>Tamari et al. 2012 MEDLINE III</td>
<td>Examine the short-term effects of an educational programme of three months structured on the quality of life of residents from a community of Japanese native people aged 65 and more.</td>
<td>Single-arm intervention study matched by age, sex and body mass index. Educational programme through lectures, advice, group exercise classes.</td>
<td>Significant improvement was observed in the general subscales of health and life of the Short-Form 36 in the education group.</td>
</tr>
<tr>
<td>Costa et al. 2012 SciELO III</td>
<td>Investigate whether the elderly quality of life level is influenced by the use of psychomotor exercises as a health education strategy.</td>
<td>Descriptive study with a quantitative approach and quasi-experimental design with only the post-test. Functional kinetic exercises educational group.</td>
<td>Physical and psychological domains, social and environmental relations and the overall quality of life presented significantly statistic differences between active and inactive elderly, as well as in Berg test, which assessed the functional balance.</td>
</tr>
<tr>
<td>Maldonado et al. 2007 MEDLINE IV</td>
<td>Analyse the factors that contribute to the empowerment of the elderly in a rural Mexican community that aims to promote active, continuous and systematic aging.</td>
<td>Intervention study based on the action-research paradigm. Elderly groups, workshops with lectures, presentations, case discussions.</td>
<td>Factors that positively influenced elderly training for an active aging were the teachings on gerontology, motivation, self-esteem, responsibility, sense of belonging to the group and sharing information.</td>
</tr>
</tbody>
</table>
Educational programmes are a means to promote quality of life, both in the short or long term, as in the study carried out in Barcelona, where the programme included parameters of physical activity, nutritional status and social support. This study determined that the Educational Programme of Self-Care for the Elderly (PECA) had no effect on perceptions of health and social support strictly in nutritional status, which may have been caused by the homogeneity of the studied sample, which presented good health condition and social networks, besides...
presenting autonomy, when the Pfeiffer test was previously performed. Despite the limitations, participation in this type of educational intervention can strengthen the relationship of the elderly with health professionals. Educational interventions can be addressed in different ways, among which stand out the group activities that can promote social interaction and help to improve the quality of life, which will depend on the means used to conduct such activities, the approach and the elderly’s needs. To improve the physical, psychological and social aspects, as well as the autonomy of the elderly, which directly affect the quality of life, nurses can promote group educational activities in order to strengthen the bond with the elderly, identify the factors that interfere with their autonomy and develop joint actions.

In the studies’ analysis, it was noticed that there is evidence in the scientific literature of educational activities that seek elderly active participation, however, those are still considered inadequate in causing behavioural changes in individuals and inappropriate for using methodologies that are not consistent with the principles of health education. Educational interventions are initiatives that can improve the quality of life in old age, and health professionals should promote active participation of elderly people in activities, which should be based on the needs listed by the population.

Health promotion through education

Health education is one of the main aspects in the promotion of active aging, in which specifics aspects of old age can be adaptable to a healthy and active life. Active aging covers the prevention and control of diseases, cognitive and social activity, social participation and health behaviours. In this context, it is up to health education to promote healthy lifestyles by articulating technical and popular knowledge and mobilizing individual and collective resources.

The collective work encourages the development of educational programs for health promotion aimed at the elderly population. Note that in order to promote health through educational interventions, the way of thinking and living of the participants should be considered because often health education is mistaken for transmission of health information, which disregards the popular knowledge. In this aspect, popular education becomes important, since the contents and activities come from popular knowledge and the context in which the participants live. In addressing the context in which they live, it is essential to pay attention to the aging process that affects the elderly, in order to enhance their skills and encourage changes that may promote healthy aging.

This perspective was found in a study conducted in Mexico that showed the possibility of enabling older people through an educational programme by providing spaces for social and emotional change, as well as the interaction of the elderly, besides demonstrating how capable the elderly is when they have the tools needed to develop change strategies. Elderly functional capacity is influenced by the practice of activities, which promotes their integration into the community through the links created in the family and among friends and stimulates the search for change and health improvement. In order to maintain the functional capacity of the elderly actions should be planned that promote health and prevent the complications resulting from the aging process, in which the elderly is perceived as an active person.

In this sense, a study conducted in Campinas/SP, which aimed to implement and analyse a popular health education program for the elderly, found as a result that the elderly, as educators of their process, presented attitudinal changes in lifestyle and health habits. In addition, the authors state that there were changes in old age image with more positive reviews, as well as an interaction able to provide a greater sense of fellowship.

Aspects that are commonly understood as influential in old age image are associated with the social environment, in which the elderly perceive themselves as being seen in their social environment, and how they see themselves influences how others see them. The educational activities in health need to be geared towards the promotion of elderly health and thus to improve their self-esteem and self-image, in order to maintain their social and psycho-emotional balance.

Increased elderly self-image and self-esteem was also observed in the study performed in Recife/PE, in which the education strategy to promote the health of the elderly was performing arts. This strategy provided moments of listening and reception, so that older people could express their experiences, establish interpersonal relationships and contribute to the active participation of all. Most studies dealing with elderly self-image and self-esteem are related to physi-
The findings of this educational intervention showed that it cooperated to expand the elderly social network and self-determination, improving the level of humor, finding new ways of living/aging, articulated knowledge and expertise and facilitated the participation and empowerment of the elderly, from their experiences and reflection for changes.

The social network of the elderly is considered important to maintain their quality of life and health promotion, and the relationship between social support and their functional capacity should be further explored, for mutual benefit, and all actors from the social network of the elderly should be included in health education strategies.

The changes in behaviour and attitudes of the elderly come from educational action that respects their values and beliefs, sharing their knowledge and provides a space for everyone to learn, teach and produce new knowledge, taking into account the aspects of aging. Therefore, it is necessary to know the social and cultural characteristics of the population, the way they perceive their health problems and how they solve them. Little has been discussed in the literature on the knowledge of social and cultural aspects of the elderly, which are factors that influence their needs, making it a knowledge gap in the educational health actions.

Therefore, before developing health education activities, it is imperative to know the needs of the elderly, as was done in the study in the city of Florianópolis/SC, which presented as activities suggested by the elderly blood pressure checking and blood glucose control, lectures with multidisciplinary team, tours, yoga and hiking. Moreover, the authors state that educational activities for self-care are essential in order to incorporate healthy practices in the elderly everyday life, from the professional-elderly interaction. This study was the only one analysed that resented this approach, but could have given greater emphasis to the cultural aspects and use active methodologies and strategies to meet the needs listed by the elderly.

Therefore, it is essential to realize the elderly as active subjects within their community, capable of promoting changes and improving self-confidence, besides sharing knowledge and, in doing so, promoting health education activities with other seniors, their families and community. As an example of active participation found in the analysed studies, there is health education through theatre, in which elderly people may improve their confidence and personal growth and change their daily routine.

Thus, studies stress the importance of focusing independence, autonomy and life satisfaction of the elderly in health education practices, which should also consider the changes that occur with the aging process. It was also emphasized that the groups represent a health education space that encourages social interaction, where the dialogue is a fundamental aspect of the health promotion scope. Dialogue is essential in educational practices for shared construction of knowledge, in which nurses must look at the context in which the people they care for are included and build with them, and from them, a continuous dialogic process to seek health.

When health education actions are made in a participatory and dialogical way, prior knowledge and the history of life of participants are valued, which transforms the elderly into educational agents. Therefore, health professionals, especially nurses, should propose innovative actions that fully meet elderly needs, with holistic and interdisciplinary perspective, besides realizing old age as a different phase and not one of loss.

Emphasis must be given to the understanding that when the health education activities are carried out taking into account all the above elements, and by adopting disciplinary, multidisciplinary, interdisciplinary and trans-disciplinary approaches, they promote the development of knowledge and the health of elderly people involved.

These actions may use different methodologies, as shown in the analysed studies: educational groups, dramatization and educational programmes that may involve from physical activities to eating habits. However, in order to conduct health education as recommended, working together with the elderly is necessary, and not placing all responsibility for the acquisition of healthy habits on them, as the integration of physical, emotional and social aspects is needed, so that there is the promotion of active aging.

**Conclusion**

The results highlight that it seems that the importance of health education to promote healthy aging is not being investigated in scientific research, considering the paucity of publications.
on the subject during the study period. Moreover, few studies have highlighted the family’s participation in educational activities and that they should meet the needs of the elderly, which can hinder their adhesion to the practices. These gaps in the scientific community determine the need for innovative health education interventions that encourage creativity and are promote the active participation of all involved.

Health education activities for elderly need methodologies that attempt to the complexity of the aging process and list the factors surrounding the individual, such as beliefs, values, norms and ways of life. Thus, one must implement new programs based on the principles of health education and more consistent with the needs of the elderly, for simply taking into account the knowledge, culture and the environment they live in will make it possible to achieve the desired results.

Thus, more research on this topic is needed in order to increase the scientific evidence and expand the development of educational activities on health aimed at promoting the health of the elderly.

Collaborations

DG Mallmann contributed with all stages of this article production: design, analysis and data interpretation, writing, critical review of the content and final approval of the version to be published. NM Galindo Neto and JC Sousa contributed to critical revision and final approval of the version to be published. EMR Vasconcelos contributed with data analysis, writing, critical review of the content and final approval of the version to be published.

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