Integrative review

Educational interventions for the health promotion of the elderly: integrative review

Intervenções educativas para promoção da saúde do idoso: revisão integrativa

Intervenciones educativas para promover la salud de los ancianos: una revisión integradora

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Abstract

Objective: To identify in the literature the scientific production on educational interventions used by nurses for the health promotion of the elderly.

Methods: Integrative literature review performed in the LILACS, MEDLINE, CINAHL and Web of Science databases between 2007 and 2017, in Portuguese, English and Spanish by using the following descriptors: “aged”; “aging”; “aged, 80 and over”; “health services for the aged”; “nursing”; “clinical trial”; “technology/ED”; “educational technology”; “health education AND technology”; “health promotion”, which were combined with “AND” and “OR” Boolean operators.

Results: Twenty-two studies were included. The educational interventions used by nurses for the health promotion of the elderly were pedagogical guidelines during nursing consultations (50%), home monitoring (27.8%), counseling with motivational dynamics (11.1%) and educational sessions with ludic strategies (11.1%).

Conclusion: Nurses play a fundamental role in health promotion by coordinating the care plan because of the bond established with users, family members and caregivers from educational actions that can change attitudes and provide health. The educational actions promoted health by favoring the greater adoption of healthy habits, therapeutic monitoring and well-being.

Keywords
Health education; Aged; Health promotion

Descritores
Educação em saúde; Idoso; Promoção da saúde

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Introduction

Technological and scientific growth has directly favored the demographic transition and the increase in average life expectancy at birth, which resulted in population aging. According to world statistics, the number of elderly people is expected to increase from 900 million in 2015 to 2 billion in 2050, which represents an increase of about 10%.(1)

This scenario implies new social demands in the provision of health services, and integral health care for the elderly stands out among them. It must include typical biopsychosocial modifications of aging as predictors of functional capacity and quality of life. Health promotion actions in this context are fundamental for active aging with the aim to mitigate the risk of fragility and vulnerability through participation, social control, and integrated and expanded actions before the elderly's multidimensionality.(2)

The most important actions used for health promotion are educational interventions. They represent predisposing factors for adherence to treatment and rehabilitation, and stimulate users' positive self-care attitudes. These facilitate the understanding of subjects involved by broadening the facets of formal education and facilitating the construction of new spaces of knowledge, whether internal or external to the care sphere through educational and dialogic relations, which in turn, transform the practice of professionals, who begin to see people and their relationship with the world, and not just with aging.(3)

In the Nursing context, the use of tools in educational care favor the mediation of teaching and learning processes in health education practice with the community and for continuing education of Nurses and Nursing students. However, the dominantly curative teaching model and approach still predominate. They diverge from the complexity of health promotion actions required for the elderly, which demand a wide range of information and multidisciplinary actions.(4)

This study emerges in face of the current epidemiological scenario that requires specific skills and abilities of nurses in order to deal with aging, and instrumentalize their role as educators and facilitators in the various health care settings. Furthermore, it comes from the need to find evidence for the construction of the doctoral thesis in Nursing titled ‘Effect of educational technology on the elderly’s quality of sleep: a randomized controlled study’, Universidade Federal do Piauí. It is based on nurses’ performance as educators and facilitators in the various health care settings.

Given the aforementioned considerations and the limited visibility of specific nursing interventions, the elderly population growth in the national and international context, and their vulnerability to chronic noncommunicable diseases (CND), the objective was to identify in the literature the scientific production on educational interventions used by nurses for the health promotion of the elderly.

Methods

Integrative literature review in six stages, namely: development of the guiding question; definition of databases and inclusion and exclusion criteria of primary studies of the sample; definition of information to be extracted from selected studies; evaluation of studies included in the integrative review; interpretation of results; and, presentation of the review/synthesis of knowledge produced.(5)

The PICo strategy (P-population/patient: elderly; I- Intervention: nursing intervention; Co-Context: health promotion) was used to develop the following guiding question: what are the educational interventions performed by nurses for the health promotion of the elderly?(6)

The articles were identified by bibliographic search conducted in June 2017 in the following databases: Latin American and Caribbean Literature in Health Sciences (LILACS) that was consulted by the Virtual Health Library (VHL); Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Medical Literature Analysis and Retrieval System Online (MEDLINE) that were consulted via PubMed; and Web of Science via the Main Collection (Thomson Reuters Scientific) that was accessed through the CAPES Portal.
The inclusion criteria for selection of primary studies were the following: studies made available as original articles in English, Spanish and/or Portuguese, published between January 2007 and June 2017 with people aged 60 years and over, on nursing educational interventions for health promotion. The limitation of the study period is justified by the Charter for Health Promotion adapted at the 6th World Conference on Health Promotion (2005) held in Bangkok, and the National Health Promotion Policy. They both emphasize the need for training and sustainable practices in the control of health determinants.\(^7\)

During the search were used the following descriptors of Medical Subject Headings (MeSH), CINAHL and Descriptors in Health Sciences (DeCS): “Aged”; “Aging”; “Aged, 80 and over”; “Health Services for the Aged”; “Nursing”; “Clinical Trial”; “Technology/ED”; “Educational Technology”; (Health Education AND Technology); “Health Promotion”. Uncontrolled descriptors and subject descriptors used to index articles in the databases were also used, as follows: “Elderly”; “Senescence”; “Technology, Educational”; “Elderly Health”; “Seniors’ Health”; “Health of the Elderly”; “Promotion of Health”. Descriptors were combined by using the Boolean operators “AND” and “OR”.

The initial search was performed by two independent reviewers with a standardized protocol for using descriptors and crossings in databases. The total of 2,255 publications was found. After identification of the pre-selected and selected studies, the titles and abstracts were read, and studies that did not meet the inclusion criteria and/or proposed theme were excluded. Of these, 137 articles were selected for reading in full and verification of interventions performed exclusively by nurses, hence defining the final sample of the review (Figure 1).

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**Figure 1.** Flowchart of the process of search and selection of studies
In order to favor the validation of the selection of publications for analysis and greater consistency, results were compared. Any disagreements were resolved by consensus among reviewers or by including a third reviewer when necessary. There were three disagreements (13.6%) among reviewers in the final selection of the sample. After reevaluation, these articles were excluded because the presented interventions were not exclusive of Nursing.

Publications were analyzed, data were interpreted in an organized way and synthesized by means of a synoptic chart describing the following aspects: year, country, design, level of evidence, strategy and educational interventions found. The quality of studies was evaluated based on the classification of the level of evidence, as follows: level I - evidence from meta-analysis results of controlled clinical trials with randomization; level II - evidence from experimental studies; level III - evidence from quasi-experimental studies; level IV - evidence from descriptive studies or with qualitative methodological approach; level V - evidence from case reports or experience reports; level VI - evidence based on expert opinions or on standards or legislation. (8)

Then, selected articles were read in depth for organizing data in thematic categories according to the similarity of objectives, results and conclusions through a descriptive approach. For the interpretation of results and presentation of the review, the choice was to discuss the findings from a critical evaluation of themes converging to the guiding question of the study.

Ethical aspects were taken into consideration throughout the development of the study by respecting the authorship of ideas, concepts and definitions present in the articles included in the review.

Results

Twenty-two articles were selected for this review, most of which were indexed in the Web of Science (50%) and CINAHL (31.8%) databases, and 90.9% were in English. The United States of America (USA) accounted for 36.4% of all articles, but there were studies from other countries too, namely Sweden, the Netherlands, Japan and Brazil.

There was a greater concentration of articles in the three previous years: 2015 (22.7%), 2016 (13.6%) and 2014 (13.6%). As for the study design, quasi-experimental studies (27.3%) stood out, followed by randomized controlled trials (22.7%), and randomized uncontrolled trials (18.2%) (Chart 1).

| Nr. | Year/Country | Design | Level of evidence |
|-----|--------------|--------|-------------------|
| A1  | 2007/ USA    | RCT    | II                |
| A2  | 2008/ England| RCT controlled | I              |
| A3  | 2008/ Holland| RCT controlled | I              |
| A4  | 2010/ USA    | RCT    | II                |
| A5  | 2010/ Brazil | Descriptive | IV              |
| A6  | 2012/ Switzerland| RCT   | II                |
| A7  | 2012/ Brazil | Action research | IV             |
| A8  | 2013/ USA    | Preclinical | III             |
| A9  | 2014/ USA    | Quasi-experiment | III         |
| A10 | 2014/ Holland| Quasi-experiment | III         |
| A11 | 2014/ China  | Quasi-experiment | III         |
| A12 | 2015/ USA    | RCT    | II                |
| A13 | 2015/ Germany| RCT controlled | I              |
| A14 | 2015/ Sweden | Quasi-experiment | III         |
| A15 | 2015/ Korea  | RCT controlled | I              |
| A16 | 2015/ Brazil | Descriptive | IV              |
| A17 | 2016/ Korea  | Quasi-experiment | III         |
| A18 | 2016/ Canada | RCT controlled | I              |
| A19 | 2016/ USA    | Action research | IV              |
| A20 | 2017/ USA    | Case study | V                |
| A21 | 2017/ USA    | Pre-experimental | III         |
| A22 | 2017/ Sweden | NRT    | II                |

Interventions of pedagogical guidelines during nursing consultations accounted for 50%, followed by home monitoring (27.8%), counseling with motivational dynamics (11.1%), and educational sessions with ludic strategies (11.1%). Regarding interventions performed during home visits, 60% of studies presented subsequent telephone intervention for monitoring the educational action, as described in chart 2.
The growth of the elderly population and the magnitude of chronic noncommunicable diseases have gradually increased nurses’ need and concern with the adoption of dynamic, participatory and effective educational actions for promoting better health conditions and quality of life.

In the present study, educational interventions performed by nurses for the health promotion of the elderly in the international context stood out. This fact shows that Brazilian studies on this theme are scarce, have low level of scientific evidence and fragile theoretical background.

The use of experimental design has been observed over the three previous years, with a growing trend also to 2017. This finding raises the most effective participation of nurses in studies with greater methodological rigor, such as the randomization, which was present in nine of the studies of this review. This favors the scientific rigor, accuracy of results and the establishment of the cause-effect relationship.
In relation to places where educational interventions were performed, different spaces for provision of health care stood out, such as the elderly’s residences during assistance in home visits, hospitals, community centers for the elderly and primary care services in the community.

Regarding the intervention strategy, there were individual and group methodological interventions. Group education as an approach, enables the exchange of knowledge by favoring training and peer identification. Its aim is also the health promotion in aging for physical activity practice, healthy eating, improved cognitive pattern and self-efficacy of care in order to reduce modifiable cardiovascular risk factors. Groups formed by older people use strategies of empowerment and autonomy with positive changes for all actors involved in the educational process.

Likewise, individual interventions also had positive results. The educational actions promoted the dissemination of information, critical reflection and adoption of positive behaviors for improvement of the quality of life, which were observed in the results of articles explored.

Thus, there has been a paradigm shift in concepts of health and education in recent years that allows the expansion of actions of ‘education for health’ (where individuals learn to care for themselves and avoid diseases) for ‘education in health’, in which individuals exchange experiences and knowledge among themselves and with professionals in order to take care of their health.

Through the analysis of articles, was identified that educational activities performed by nurses help to break the paradigm of vertical transmission of information and generate participation in decision making, which is a necessary condition for developing reflexive awareness for promotion and protection of health. Therefore, nurses’ educational work is reinforced as a tool for the operationalization of scientific knowledge that subsidizes introspective thinking and motivates families regarding the possible risks to the elderly’s health.

Thus, for the complete disruption of this hierarchical paradigm of communication and health education, there must be a change of behavior and attitudes regarding individual and collective health, both of professionals and individuals.

In the work of Nursing there must be an understanding on the basic premise of individualized care, which is the view of elderly as active subjects in all caring processes by favoring the construction of bonds with the community and the strengthening of favorable interpersonal relationships. These will allow the identification of the needs, demands and unpredictability of the different environmental, cultural and social contexts.

In the analysis of studies, nurses’ performance is configured in the articulation of technical and popular knowledge that provides reflection and healthy life habits in favor of active aging. In this context, the reflexive practice and use of educational strategies in health provide motivation, understanding and assistance before different cognitive, social, psychological and behavioral demands needed in elderly care.

The actions developed by nurses in their different contexts are shaped in the use of different educational approaches, namely: pedagogical guidelines during nursing consultations, home monitoring, counseling with motivational dynamics and educational sessions with ludic strategies.

In the present review, educational guidelines provided during nursing consultations were the most used. Nursing consultations can be considered as a milestone in individualized care and assistance in the Basic Health Care Program of the Ministry of Health of Brazil, and an effective, dignified and humanized care strategy for the population.

Home monitoring also stands out as a growing educational strategy given the possibility of patient-family interaction in an understandable and singular way. The analysis of articles in which this approach was used allowed the identification of particularized characteristics in nurses’ role in home care. Consequently, the work process is influenced by patients’ profile, and by the arrangement of the family and structure at home.

Interventions within the domicile constitute a different opportunity of care that minimizes the
disease process with technical-scientific support in an extra-health space. Therefore, home care has gained importance as a complementary care model. Its aims are patients’ autonomy, self-care and the strengthening of nursing as a science. Thus, nurses’ work in home care service goes beyond the organization of nursing care, and also includes articulations with support services and other professionals of the multiprofessional health team. Furthermore, nurses play the role of potentializing the construction autonomy in the home context by involving both patient and family.\(^{(37)}\)

The incorporation of telephone follow-up calls as a complementary modality of intervention for effective and productive home visits stands out.\(^{(38,39)}\) In this regard, combined interventions are also therapeutic moments for the elderly, and serve as support and social strengthening by enabling the improvement and development of skills and knowledge for decision making with long-term effects.\(^{(40)}\)

In addition, components of the counseling practice involve exchanging information, vulnerability/risk assessment and emotional support as counseling strategies with motivational dynamics.\(^{(10,12,23)}\) Therefore, if counseling is based on the interaction and trust relationship established between professionals and users, motivational dynamics facilitates the reflection, overcoming of difficulties, the adoption of safe practices and the promotion of quality of life.\(^{(41)}\)

However, with regard to educational sessions with ludic strategies\(^{(13,15)}\) the feasibility of health promotion by using theater, hypermedia, dramatizations, games and media stands out.\(^{(19,42,43)}\) There is need for association with a follow-up intervention strategy, such as using the telephone intervention for resolving doubts and raising different thoughts.

In this context, all interventions were focused on the use of communication through educational sessions and counseling. As a process of understanding and sharing information, communication influences the behavior of people involved.\(^{(44)}\) Moreover, in studies included in the present review, there were interventions bringing patients and their essence to the center of orientations as a way of promoting self-care as a viable option compared to the traditional schedule of consultations and exams.

This evidence calls the reflection that health promotion guided by orientation derives from individuals’ needs and preferences, and not from professionals’ perceptions. In other words, it is a practice of people for themselves and developed by themselves. In this line, the improvement of the elderly’s living and health conditions through educational interventions will only become reality when educational actions are directed to subjects’ cultural reality, since problems are worked out from the collective thought and analysis of cultural beliefs and values.\(^{(45)}\)

The study also evidences an increasing interest in breaking the authoritarian and normative tradition in the provision of elderly care by nurses, who assume a shared construction of knowledge based on the convergence between knowledge accumulated from sciences and knowledge of popular classes through their experiences. Thus, educational interventions in health should be seen as a stimulus for the elderly’s participation in the educational process, and health actions should focus on their freedom, autonomy and independence.

The present review made it possible to identify the educational interventions used by nurses for the health promotion of the elderly. Twenty-two articles fulfilled the inclusion criteria, in which the following nursing actions were identified: pedagogical guidelines during nursing consultations (50%), home monitoring (27.8%), counseling with motivational dynamics (11.1%) and educational sessions with ludic strategies (11.1%).

### Conclusion

Regarding knowledge gaps, in Brazil and Latin America, there was a low production of studies with strong evidence levels, which reflects nurses’ low articulation in research scenarios. In addition, there is a small number of intervention strategies aligned with primary health care services, which shows disarticulation between health care sectors, and decreases the integration between professionals and the effectiveness of interventions used. In relation to nurses, these professionals play a fundamental role in health promotion by coordinating the care plan because of the bond...
established with users, family and caregivers from educational actions capable of modifying attitudes and providing health. Note that these characteristics can also be seen in health work in different contexts. Educational actions performed by nurses were considered effective given the positive results presented in the provision of nursing care and for promoting the health, empowerment and quality of life of people by offering a safe and human environment. In addition, they promote the elderly’s reflection for increasing their knowledge and capacity for self-care.

Collaborations

Carvalho KM, Silva CRDT, Figueiredo MLF, Nogueira LT and Andrade EMLR participated in the project design, data analysis and interpretation, article writing, critical review of the intellectual content and final approval of the version to be published.

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