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The process of building educational material for the conduct and management of bedridden elderly people

O processo de construção de material educativo para condução e manejo de idosos acamados

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ABSTRACT

The aim of this study was to build and validate an educational technology (booklet) in order to provide better guidance to caregivers of bedridden elderly people. This is a methodological study carried out between April 2016 and October 2017, in the municipality of Horizonte, Ceará. The following steps were followed (REBERTE, 2012): submission to the ethics committee; integrative review of existing manuals for the management of bedridden elderly people; interviews with 12 caregivers of bedridden elderly people; validation of the booklet with eight specialists, three of whom were specialists in educational materials and five with experience in bedridden elderly people or family health; semantic validation with 12 caregivers of bedridden elderly people. The Content Validity Index (CVI), which assesses the reliability of each item, was used to validate the content and appearance by the judges; the content validity index (CVI) was considered to be greater than or equal to 0.75. In the integrative review, 13 manuals were selected which included guidelines related to the topic in question. It was concluded that the educational booklet is a valid and reliable tool with simple language and an attractive appearance, which can be used not only by caregivers but also by the health professionals who make up home care, who are responsible for assisting the bedridden elderly.

Keywords: Caregivers. Elderly people. Manuals.

RESUMO

O objetivo deste estudo foi construir e validar uma tecnologia educativa (cartilha) na busca de proporcionar uma melhor orientação aos cuidadores de idosos acamados. Trata-se de estudo metodológico realizado entre os meses de abril de 2016 a outubro de 2017, no





município de Horizonte, Ceará. Foram seguidas as seguintes etapas (REBERTE, 2012): submissão ao comitê de ética; revisão integrativa dos manuais existentes para o manejo de idosos acamados; entrevistas com 12 cuidadores de idosos acamados; validação da cartilha com oito especialistas, sendo três especialistas em materiais educativos e cinco com experiência em idosos acamados ou saúde da família; validação semântica com 12 cuidadores de idosos acamados. Para a validação de conteúdo e aparência pelos juízes foi utilizado o Índice de Validade de Conteúdo (IVC), que avalia a confiabilidade de cada item, considerou-se o índice de validade de conteúdo (IVC) maior ou igual a 0,75. Na revisão integrativa, foram selecionados 13 manuais os quais contemplavam orientações relacionadas à temática interessada. Concluiu-se que a cartilha educativa representa uma ferramenta válida e confiável com linguagem simples e aparência atraente, a qual pode servir não só para os cuidadores como também para os profissionais de saúde que compõem a atenção domiciliar, os quais são responsáveis pela assistência ao idoso acamado.

Palavras-chave: Cuidadores. Idoso. Manuais.

Introduction

According to Brasil (2014), chronic degenerative diseases are a major health problem and currently account for 72% of registered causes of death. In addition to having a heavy burden of related morbidities, they also have high hospitalization rates, increase amputations, neurological dysfunctions and immobility syndrome, altering the individual's quality of life as the disease worsens, and can lead to a situation of total dependence and disability.

This situation of dependence and immobility, which occurs mainly in the elderly, causes them to become bedridden, requiring the attention of a home healthcare team, as well as a caregiver.

Bedridden patients need special attention, since their state of health is debilitated and they need patience, support and understanding. Often these patients feel like a "burden" to their families and caregivers, and they also need someone to care not only for their body, but also for their mind, their soul. Working on self-esteem can help a lot in improving the patient's condition and it is the job of everyone who lives with them to ensure that they feel loved and, whenever possible, integrated into family activities.

In this context, the figure of the caregiver arises. This is the person who provides care directly, on a continuous and/or regular basis and, in most cases, is someone from the family.

Therefore, the home care team must be concerned with guiding the caregiver to carry out the activities that are pertinent to them in order to promote more comprehensive and better quality care for the patient they assist.

One of the major problems in caring for this type of patient lies with the person responsible for home care, i.e. the caregiver, who is not prepared to correctly follow the care instructions provided by the health team.

Thus, the use of printed educational materials can have an important impact on the education of patients and caregivers, helping them to answer questions that may arise when they are not in the presence of professionals. The use of these materials in healthcare is common practice in the Unified Health System (SUS).

Therefore, educational materials contribute to health promotion, but they depend on the principles and forms of communication involved in the development processes (Reberte,



2012).

Interaction and the exchange of knowledge are essential aspects in this process, considering people's lifestyles.

However, it was noted that there is a scarcity of materials on guidance for bedridden people and their caregivers, with only eight manuals being found, which shows the lack of production on the subject, whether at university level or in management systems (Brites and Santana, 2014). Focusing on the manuals produced for bedridden people, it was concluded that those found were more focused on the prevention of pressure ulcers, hygiene and nutrition, as well as other topics related to the practice of nursing professionals, highlighting a gap with regard to guidance on the prevention of osteoarticular impairments and respiratory complications (Fernandes et al., 2011).

Thus, it is believed that the construction and validation of an educational technology can be an instrument to promote better guidance for caregivers of bedridden elderly people.

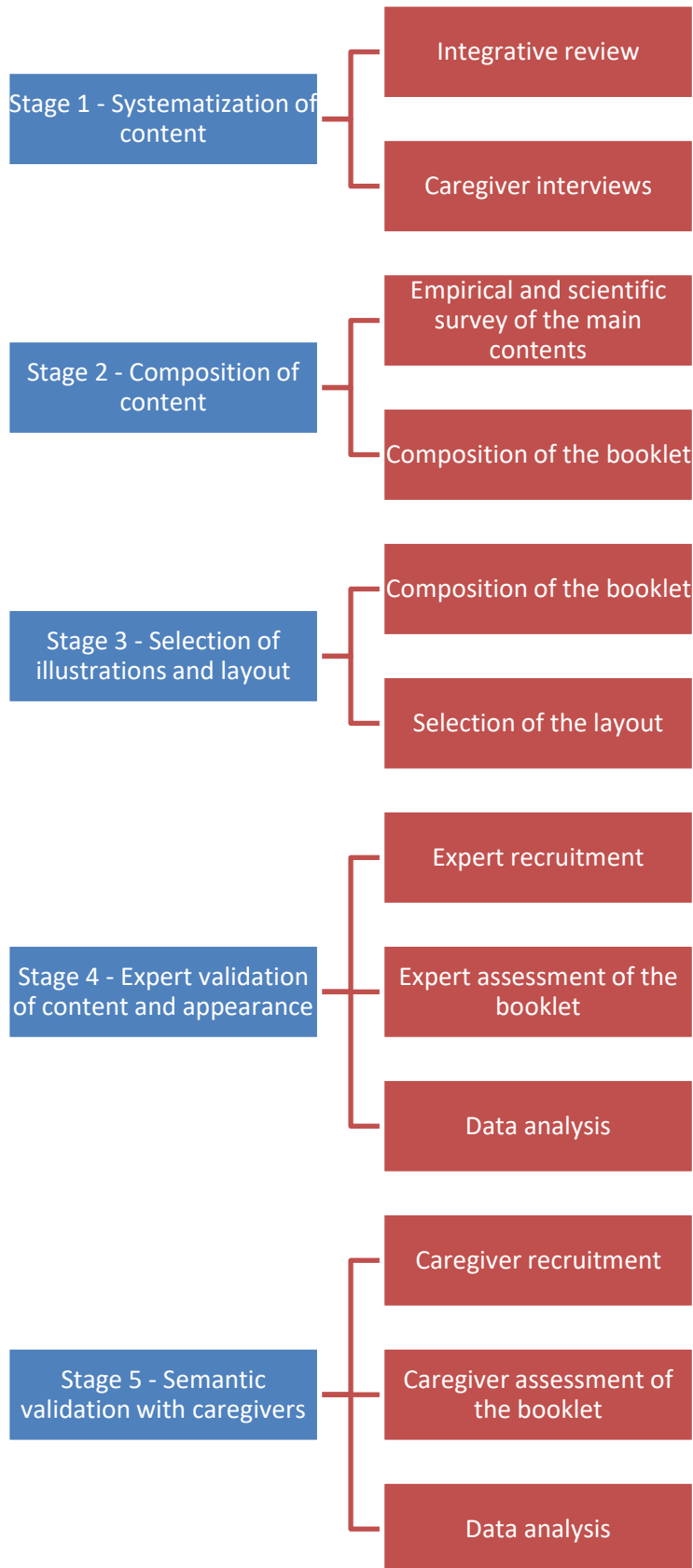
1 Methodology

This is a methodological study in which a booklet was produced with the aim of informing caregivers of bedridden elderly people of the main steps to take to provide optimal care for the patient.

The study was carried out in the municipality of Horizonte, in the metropolitan region of Fortaleza, in the state of Ceará, located 40 km from the capital, with a population of 63,365 inhabitants.

The process of preparing the booklet was divided into five phases, based on Reberte (2012), as shown in Figure 01, and took place between May 2016 and September 2017.

Figure 1 – The process of constructing the booklet



Source: prepared by the authors.



The first phase was based on an integrative review of printed educational materials for caregivers of bedridden elderly people and an interview with the caregivers, in which they reported their difficulties in caring for bedridden elderly people. Data collection for the integrative review was carried out through a search for scientific publications in the LILACS, BIREME and SCIELO databases, using the descriptors 'caregivers', 'elderly', 'manuals' and at the electronic address <http://google.com.br>, using the expressions 'manual for elderly caregivers', 'booklet for caregivers' and 'practical guide for elderly caregivers'. Data on caregivers' difficulties was collected at each participant's home through a semi-structured interview. All the interviews were audiotaped and transcribed verbatim. This data was used to guide the development of the booklet's topics and its main contents.

The second phase consisted of an empirical and scientific survey of the main contents for the booklet, based on the needs of caregivers and the integrative review. The third phase consisted of choosing the illustrations and layout of the booklet. The development of this phase was based on the criteria previously established for the entire booklet construction process, i.e. ease of reading and clarity of content. To compose the material and develop the layout (editing, layout, choice of illustrations and design), we relied on a professional with a bachelor's degree in Biological Sciences from the Federal University of Ceará and a technical degree in graphic design from the Gracom School of Visual Effects.

The first version of the booklet was submitted for evaluation by judges, who approved its validation. The criteria adopted for including health professionals as judges were: 1) work in home care services and primary health care; 2) have previous experience in elderly health and health promotion activities and 3) have experience related to the validation of educational and didactic materials. The search was carried out using the Lattes platform, as well as snowball sampling.

In the fourth phase, a questionnaire was used for the validation process (Reberte, 2012). The questions were related to the appropriateness of the information, language and illustrations. For each topic in the booklet, the professionals assessed the appropriateness and presentation of the information, considering the readers' perspective.

With regard to language, they assessed the aspects of convenience and ease of understanding and whether the most important concepts were addressed with clear and objective vocabulary, as well as possible conceptual errors. With regard to the illustrations, they assessed the suitability of the visual composition, its attractiveness and organization, as



well as the quantity and suitability of the illustrations. At the end of the validation, the participating professionals were asked to provide a general opinion on the booklet and their recommendations were fully accepted and incorporated. Subsequently, the new version of the booklet underwent another editing, proofreading and layout process.

The fifth phase of the research involved applying a questionnaire - based on Peixoto (2016) to the same caregivers who had responded to the semi-structured interview, containing evaluation questions about the booklet in terms of the importance of the information, the acquisition of knowledge, the ease of understanding the instrument, the suitability of the graphic forms and colors chosen and the booklet's attractiveness.

The study was approved by the Research Ethics Committee of the State University of Ceará, ensuring compliance with the recommendations of Resolution No. 466/12, regarding research with human beings (Brazil, 2012a), receiving a favorable opinion with No. 1,978,555.

Results

A total of 20 people worked on this project, including eight professionals and 12 caregivers. The team was made up of four nurses, a physiotherapist, a physical educator, a nutritionist and a dentist. Three of them had master's degrees and five had doctorates. All of them had experience in home care and six of them had experience in publishing printed educational materials.

The caregivers were aged between 20 and 50. Of the 12 caregivers interviewed, seven were children of the elderly, two were granddaughters, one was a daughter-in-law, one was a sister-in-law and one was a sister. Ten caregivers were female and two were male. The average time spent caring for the elderly was five years.

The initial version of the proposed booklet was developed in a 148x210mm size, corresponding to an A5 sheet of paper, with 32 pages of content. This version was sent to experts and technicians for content and appearance validation. At the end of the content and appearance validation by the experts, the graphic designer made further adjustments as instructed by the researcher.

In the process of validation by the judges, suggestions were made regarding information, language and vocabulary. The judges' main suggestions for including information are shown in Chart 1.



Chart 1. Suggestions made by experts for including information in the text, according to the booklet's topic.

Domain	Suggestions
Cover	Replace the healthcare professional's blouse with a lab coat.
Personal hygiene	<ul style="list-style-type: none"> ● Reverse the sequence, placing the hair part first, then the after-bath part. ● The sequence was found a bit confusing, so in the large figure, include a small-sized drawing of Figure 3 near Figure 2 to provide clarity. ● In item 2, replace the word "thorax" with "chest." Wash intimate areas after urination and bowel movements. ● Add: "Bathing is also an excellent opportunity to inspect the skin, nails, and hair for hidden lesions, skin cracks, foot or skin bruises, or other emerging issues such as pressure injuries (bedsores) or fungal infections. Nails should be trimmed weekly." ● Replace the phrase "Apply sunflower oil to areas prone to pressure ulcers" with "Apply sunflower oil to areas prone to skin wounds, known as pressure injuries."
Oral hygiene	<ul style="list-style-type: none"> ● Allocate a separate page for oral hygiene, distinct from personal hygiene. ● Introduce information on denture cleaning and oral cancer prevention.
Positions	<ul style="list-style-type: none"> ● Change the title "Positions" to "Positions for the Elderly to Assume." ● Beside the brick figure, add the phrase: "Place a brick under the legs where the head of the bed is positioned." ● Replace "legs extended" with "legs stretched." ● Replace the sentence: "Never lower the head of the bed completely; always leave it at least 30 degrees, as this facilitates bronchoaspiration" with "Never lower the head of the bed completely; always leave it at least 30 degrees, as this prevents stomach contents from entering the lungs, known as bronchoaspiration." ● In the side-lying patient figure, draw a pillow that was described but not illustrated, ensuring the image matches the description.
Position changes	<ul style="list-style-type: none"> ● The phrase: "Avoid complications due to patient immobility, such as pressure ulcers and pulmonary problems" requires an accent mark (a) before "imobility." ● Replace "pressure ulcer" with "pressure injury." ● Rename the items as follows: <ol style="list-style-type: none"> 4.1 Patient lying on their back --- lying on their side. 4.2 Patient lying on their side --- lying on their back. 4.3 Patient lying down --- sitting (at the edge of the bed). 4.4 Patient in bed --- chair. 4.5 Patient in chair --- bed.



	<ul style="list-style-type: none">● Replace the sentence: "Basically, follow the steps opposite to the previous one. Turn the patient onto their back and they will be at the edge of the bed. Remove the pillows (in a hospital bed: lower the headboard)" with: "Basically, follow the steps opposite to the previous one. Remove the pillows (in a hospital bed: lower the headboard). Turn the patient onto their back and they will be at the edge of the bed."● The steps from bed to chair and chair to bed are not the same, therefore, provide both sets of instructions.
Pressure injury prevention	<ul style="list-style-type: none">● Replace the term "pressure ulcer" with "pressure injury".
Feeding	<ul style="list-style-type: none">● Replace "Bronchoaspiration (when food goes into the lungs)" with: "Bronchoaspiration (when part of the food in the stomach goes into the lungs)."● Where it reads: "Observe if the patient easily chokes, if this occurs, inform the healthcare team." The 'a' before "team" requires an accent mark (ã).
Exercises	<ul style="list-style-type: none">● Replace "muscle retractions" with "muscle shortening."● After listing the benefits, add the following note: "Important: encourage your patient to attempt exercises independently first; assist them only if they are unable to perform the exercises alone".
Warning signs	<ul style="list-style-type: none">● Replace the term "pressure ulcer" with "pressure injury."● Replace "gastric problem" with "stomach problem."● Include weight loss as a warning sign: malnutrition, decreased immunity, and problems with food absorption.

Source: prepared by the authors.

All the judges gave the booklet a positive evaluation. In the content assessment, the material was 100% validated, with few considerations to be revised, as well as the illustrations and layout of the booklet.

Only one caregiver asked for the number of pages of the booklet to be changed, so that there were more pages. In general, the booklet was also considered excellent by the caregivers, most of whom said that this type of resource should be available to all caregivers of bedridden elderly people, given its importance for explaining doubts and providing guidance, especially for caregivers who are just starting the process of caring for bedridden elderly people.

Satisfaction with the material can also be seen in the reports from caregivers, as transcribed below:



"I liked the booklet because it was a good learning experience, deeply understanding how to care for a bedridden elderly person. It would be great if every caregiver had one at home to gain more knowledge and guidance." (Caregiver 1).

"It would have been helpful to receive it earlier when the patient becomes bedridden, as doctors and caregivers could have a better understanding. The booklet is very well suited, explaining well to someone caring for a bedridden elderly person." (Caregiver 3).

Discussion

The process of building educational resources recommends interaction between the people involved. This interaction, together with a commitment to participation in health promotion, is essential for the methodology in question.

The content composition procedure made it possible to review and update the material that had been preserved after interviewing the caregivers. The guidelines provided were based on scientific literature. However, the preferences of the participants, as well as culture and professional judgment, must be taken into account in the health education process, as Reberte (2012) points out.

Alignment was chosen between the information-rich content, however, since very extensive materials become tiresome, there was a need to produce material with language accessible to all social strata and levels of education.

The participation of the judges in the evaluation of the booklet made it possible to adapt the content to the professional's work context, who may have different knowledge and interests from those who prepare the educational material, a characteristic that was taken into account and respected in the process of constructing the educational resource.

The contribution of the caregivers made it possible to create the booklet with easy-to-understand vocabulary and illustrations. The evaluation of the booklet by the caregivers showed that the content was written in accordance with the reality of life of the target audience, due to their positive assessment of the material.

In this sense, the participatory approach used during the phase of identifying the educational needs of the caregivers was essential. This type of approach allowed the active contribution of the caregivers in indicating the contents of the booklet, to match their own demands. Involvement in the search for collective solutions makes people work on their own



issues, overcoming their problems.

It is necessary to clarify that the booklet should be considered as a complementary resource available to the caregiver. Its content helps them make decisions about the care they should take of bedridden elderly people.

Through the process of preparing the booklet, the dialogical relationship between professionals and the other people involved plays a key role in effective communication in health services, which requires reflexive attitudes in the communication process, making it possible to overcome the hegemony of the professional in educational activities.

Final considerations

The booklet "Bedridden Elderly: Care Guide", created with the aim of improving the quality of care for caregivers of bedridden elderly individuals, was validated for content and appearance by judges. The content jury comprised a multidisciplinary team with experience in home care or family health, and technical judges were professional experts in educational material publication. The booklet was also validated by the target audience through a semantic validation process, grounded in existing scientific literature, and involved a semi-structured interview to understand caregivers' difficulties in caring for bedridden elderly, along with the contribution of a graphic designer. Suggestions from judges and caregivers were incorporated into the final version of the booklet.

It is expected that this educational material will be useful not only for caregivers but also for home healthcare teams, health managers, and the academic community. It is crucial to disseminate the information in this booklet to promote health and empower caregivers in providing care to bedridden elderly individuals.

It is emphasized that this developed technology should undergo continuous updates, as the limitations in the number of participating caregivers do not guarantee the resolution of all doubts, and care guidelines undergo reformulations and acquire new knowledge. Therefore, this study also contributes to the development of similar studies and new evaluations aimed at enhancing the content and appearance of educational booklets for caregivers of bedridden elderly individuals.



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