

Prevention and risk of falls in the elderly in the home environment: Construction and validation of educational material

Prevenção e risco de quedas em idosos no ambiente domiciliar: Construção e validação de material educativo

Prevención y riesgo de caídas en ancianos en el ambiente doméstico: Construcción y validación de material educativo

RESUMO

Objetivo: construir e validar cartilha educativa para prevenção de quedas em idosos no ambiente domiciliar. Método: Estudo metodológico, mediante construção e validação de cartilha educativa para prevenção e risco de quedas em idosos. De acordo com as etapas: sistematização de conteúdo; criação das ilustrações, composição da cartilha e validação do material construído por profissionais especializados em saúde do idoso. Embasado no modelo proposto por Pasquali (2010) e legitimado por meio do Índice de Validade de Conteúdo. Resultado: O conteúdo foi dividido em dois tópicos: "Situação de risco de queda" que apresenta a definição e caracterização de quedas e a "Casa segura" contendo dicas para manter o ambiente do lar do idoso seguro. Conclusão: O material educativo foi proposto como um guia para que possa ser utilizado tanto em domicílios quanto nos postos de saúde e em instituições de longa permanência, como fonte de orientação e informação sobre a população idosa.

DESCRIPTORIOS: Materiais de Ensino; Estudos de Validação; Enfermagem; Tecnologia Educacional.

ABSTRACT

Objective: to build and validate an educational booklet for the prevention of falls in the elderly in the home environment. Method: Methodological study, through the construction and validation of an educational booklet for the prevention and risk of falls in the elderly. According to the steps: systematization of content; creation of illustrations, composition of the booklet and validation of the material created by professionals specialized in the health of the elderly. Based on the model proposed by Pasquali (2010) and legitimized through the Content Validity Index. Result: The content was divided into two topics: "Fall risk situation" which presents the definition and characterization of falls and the "Safe house" containing tips to keep the environment of the home for the elderly safe. Conclusion: The educational material was proposed as a guide so that it can be used both in homes and in health centers and long-stay institutions, as a source of guidance and information about the elderly population.

DESCRIPTORS: Teaching Materials; Validation Studies; Nursing; Educational technology.

RESUMEN

Objetivo: construir y validar una cartilla educativa para la prevención de caídas en ancianos en el ambiente domiciliario. Método: Estudio metodológico, a través de la construcción y validación de una cartilla educativa para la prevención y riesgo de caídas en ancianos. Según los pasos: sistematización de contenidos; creación de ilustraciones, composición del cuadernillo y validación del material creado por profesionales especializados en la salud del anciano. Basado en el modelo propuesto por Pasquali (2010) y legitimado a través del Índice de Validez de Contenido. Resultado: El contenido se dividió en dos temas: "Situación de riesgo de caída" que presenta la definición y caracterización de las caídas y "Casa segura" que contiene consejos para mantener seguro el ambiente del hogar de ancianos. Conclusión: El material educativo se planteó como una guía para que pueda ser utilizado tanto en los hogares como en los centros de salud e instituciones de larga estancia, como fuente de orientación e información sobre la población adulta mayor.

DESCRIPTORIOS: Materiales didácticos; Estudios de Validación; Enfermería; Tecnología Educacional.

RECEBIDO EM: 06/06/2022 APROVADO EM: 13/07/2022

Bárbara Amaral Bustamante Mendes

Nursing student at Escola Superior de Cruzeiro. Cruzeiro - ESC, Cruzeiro - São Paulo - Brazil.

ORCID ID: 0000-0003-4508-7405

Leonardo Bastos De Oliveira Silva

Nursing student at Escola Superior de Cruzeiro. Cruzeiro - ESC, Cruzeiro - São Paulo - Brazil.

ORCID: 0000-0002-8641-484X

Fabiano Fernandes de Oliveira

Nurse, Master and Doctoral Student in Nursing by the Postgraduate Program, Academic Doctoral Course at Universidade Estadual Paulista – “Júlio de Mesquita Filho” – UNESP - Botucatu, São Paulo - Brazil. Professor of the Undergraduate Nursing Course at Escola Superior de Cruzeiro – ESC, Cruzeiro, São Paulo - Brazil.

ORCID: 0000-0001-6768-4257

INTRODUCTION

A According to the Brazilian Society of Geriatrics and Gerontology, in Brazil, there are about 30 million people aged 60 or over and the population is expected to exceed 73 million elderly people by 2060, according to data from the Brazilian Institute of Geography and Statistics (IBGE).⁽¹⁻²⁾

With this growth in the perspective of life of the elderly population, one of the factors that interfere with the autonomy of these people is the loss of balance, which is directly related to the increased risk of falls and the complications resulting from them. In this sense, it is necessary to reduce falls in the elderly, implementing measures of monitoring, screening, survey of risk factors and assessment, associating with interventions that focus on gaining mobility and functionality.⁽³⁾

It is known that falls in the elderly are generally the result of a complex interaction between different risk factors, which can be classified into three categories: intrinsic, extrinsic and behavioral.

The intrinsic ones include the characteristics related to the elderly person, such as age: functional capacity, presence of chronic diseases and gait disorders. The extrinsic ones are those pertinent to the environment where the elderly person lives and include uneven surfaces, slippery floors, inadequate lighting, loose rugs and stairs without handrails. With regard to behavioral reasons, the use and perception of space appear in relation to the demand imposed by the environment and the functional capacity of the elderly.⁽⁴⁾

It is believed that prevention measures, aimed at educating the elderly population about the risk of falls and how

to avoid them, should be introduced, taking into account that 60% of falls occur at home during activities of daily living.⁽⁵⁾

Among these interventions, we have health education as a prevention strategy, because during this process professionals can use printed educational materials which, based on the organization of information and the presence of illustrations, favor the understanding of the guidelines. Among these printed materials, the booklet stands out as a useful tool for describing health-related issues and as a viable resource in view of its low cost and practicality.⁽⁶⁾

The importance of written language in the messages transmitted along with the illustration is also highlighted. The text must be brief, direct and understandable. In this process, the written material reinforces the oral information already received and produces meanings for users, contributing to behavioral changes.⁽⁷⁾

It is understood, from what has been exposed so far, that educational materials must be properly prepared and authenticated before being used by the target population. One of the essential steps for the effective development of this educational material is the validation of its content, a process that assesses its representativeness by adequately approaching the universe to which it is proposed.⁽⁸⁾

Given the above, the present study aims to build and validate an educational booklet for the prevention of falls in the elderly in the home environment.

METHOD

This is a methodological study, with the proposal of building and validating an educational booklet to prevent and

reduce the risk of falls in the elderly, based on the model proposed by Pasquali (2010)⁽⁹⁾, consisting of theoretical, empirical and analytical procedures, developed from February to October 2021.

For the construction of the booklet, the following steps were established: systematization of content; creation of illustrations; composition of the booklet and validation of the material designed by professionals specialized in the health of the elderly.

In order to systematize the content, articles on falls in the home environment were selected and the Latin American and Caribbean Literature on Health Sciences (LILACS) databases were consulted. Medical Literature Analysis and Retrieval System Online (MEDLINE), Nursing Database (BDEnfe), Scientific Electronic Library Online (SciELO).

The descriptors used were: “Enfermagem/Nursing”; “Acidentes por Quedas/Accidental Falls” and “Assistência Domiciliar/ Home Nursing”. The search strategy used was the selection of works from: “Enfermagem/Nursing” AND “Acidentes por Quedas/Accidental Falls” AND “Assistência Domiciliar/ Home Nursing”.

For the selection of articles, the inclusion criteria were: articles available in full in English, Spanish and Portuguese and published from 2016 onwards.

Editorials, reflective studies, repeated manuscripts and those that did not address the study theme were excluded.

In this initial stage of bibliographic survey, 17 publications were found and, after reading the abstracts and articles in full, 10 articles were selected for reflective reading and synthesis of the most relevant points. The chosen articles guided the elaboration of the content of the educational booklet.

During the reading of the texts, information was collected regarding the title, year of publication, country, language, objective, method, results, conclusion and level of evidence.

After compiling the data obtained from the articles selected in the integrative review, information regarding the Safe House concept was also included. According to this concept, it is defined that the housing of the elderly should offer adequate, safe and comfortable surroundings that give them independence, that is, a home life of quality and dignity.⁽¹⁰⁾

After studying and evaluating the appropriate content for the booklet, a script was developed with information and illustrations that should be present in the material.

Subsequently, with the support of a graphic designer, the art of the booklet was elaborated, through the making of figures, formatting, configuration and layout of the pages.

The choice of the professional in the design area is justified by the experience he has in developing educational materials for the Postgraduate Program in Nursing at the Universidade Estadual Paulista "Júlio de Mesquita Filho" - UNESP, Botucatu, São Paulo, Brazil, contributing to the construction of technologies related to Course Completion Works in the health area, including dissertations and theses.

The designer developed the illustrations based on real figures and the description of the researchers, which aimed to accurately portray the information obtained in the integrative review on the prevention and reduction of the risk of falls in the elderly.

The layout and structure of the text and sentences were carried out by the designer, following the researchers' monitoring and according to recommendations for texts on educational technologies.⁽¹¹⁾ The colored illustrations were created in Corel Draw X7.

Following this step, there was a correction and adaptation of the language,

making it more appropriate to the target audience.

In the empirical phase, a group of experts with expertise in home care, patient safety or educational technologies was selected to validate the booklet.

The search for the judges took place among professionals working in the

established inclusion criteria.

In the selection of professionals, the criteria of Jasper⁽¹²⁾ were used: having knowledge/skills on the subject (supervision of dissertations and theses related to patient safety or educational technologies); have knowledge/skills through professional experience (have teaching experience in the area of clinical nursing or have experience with elderly care) and have expertise in a certain type of study (experience in the development of printed educational technologies, participation of review boards related to the theme and having published articles on patient safety or educational technologies).

To define the number of specialists, the recommendation was adopted that the number be between 6 and 20, and that it be odd, to avoid equal opinions. Based on these criteria, 30 professionals were invited, of which 16 did not return the contact, which resulted in a sample of 14 judges.⁽¹³⁾

Data collection was performed online, through a form using the Google Forms tool that was shared via email, along with the Free and Informed Consent Form (ICF). The deadline was 7 days for evaluating the booklet and filling out the evaluation instrument from May to July 2021.

In the form, the images of the booklet were inserted together with the items of the validation instrument. This instrument contained variables about the objective (purposes, goals or purposes of the booklet); structure/presentation (organization, structure, language, coherence and size of the text) and relevance of the material (significance, impact, motivation and interest in reading the booklet).

Each of these topics present in the instrument contained affirmative sentences about the items and, after reading the material, the judges could assess the item as adequate, partially adequate or inadequate. A space for suggestions was also included, to be filled in by the judges, if they so wished.

It is known that falls in the elderly are generally the result of a complex interaction between different risk factors, which can be classified into three categories: intrinsic, extrinsic and behavioral.

area of elderly health with expertise in patient safety, educational technologies and Nursing, with an emphasis on Geriatrics and Gerontology. It was also requested, through snowball sampling, the indication of other evaluators with a profile to participate in the validation.

Based on this indication, the Lattes curriculum was evaluated to verify whether the indicated professionals met the

For the analytical procedure, the measurement of the validity of the items analyzed by the specialists was used, performed based on the Content Validity Index (CVI) greater than or equal to 0.78. After receiving the completed instruments, the analysis of the information began. To calculate the CVI per item, the number of responses “3” or “4” was added and divided by the total number of responses.⁽¹⁴⁾

A descriptive analysis of the data referring to the characterization of the judges and referring to the opinion issued according to the variables of the instrument (objective, structure/presentation and relevance of the material) was performed.

After approval to carry out the study by the institution of origin of the research, the project was previously sent to the Research Ethics Committee (CEP), through Plataforma Brasil, to Centro Universitário Teresa D’Ávila (UNIFATEA) in accordance with resolution 510/16 and obtained CAAE 45159721.1.0000.5431 and opinion number 4,651,483 on April 15th, 2021.

RESULT

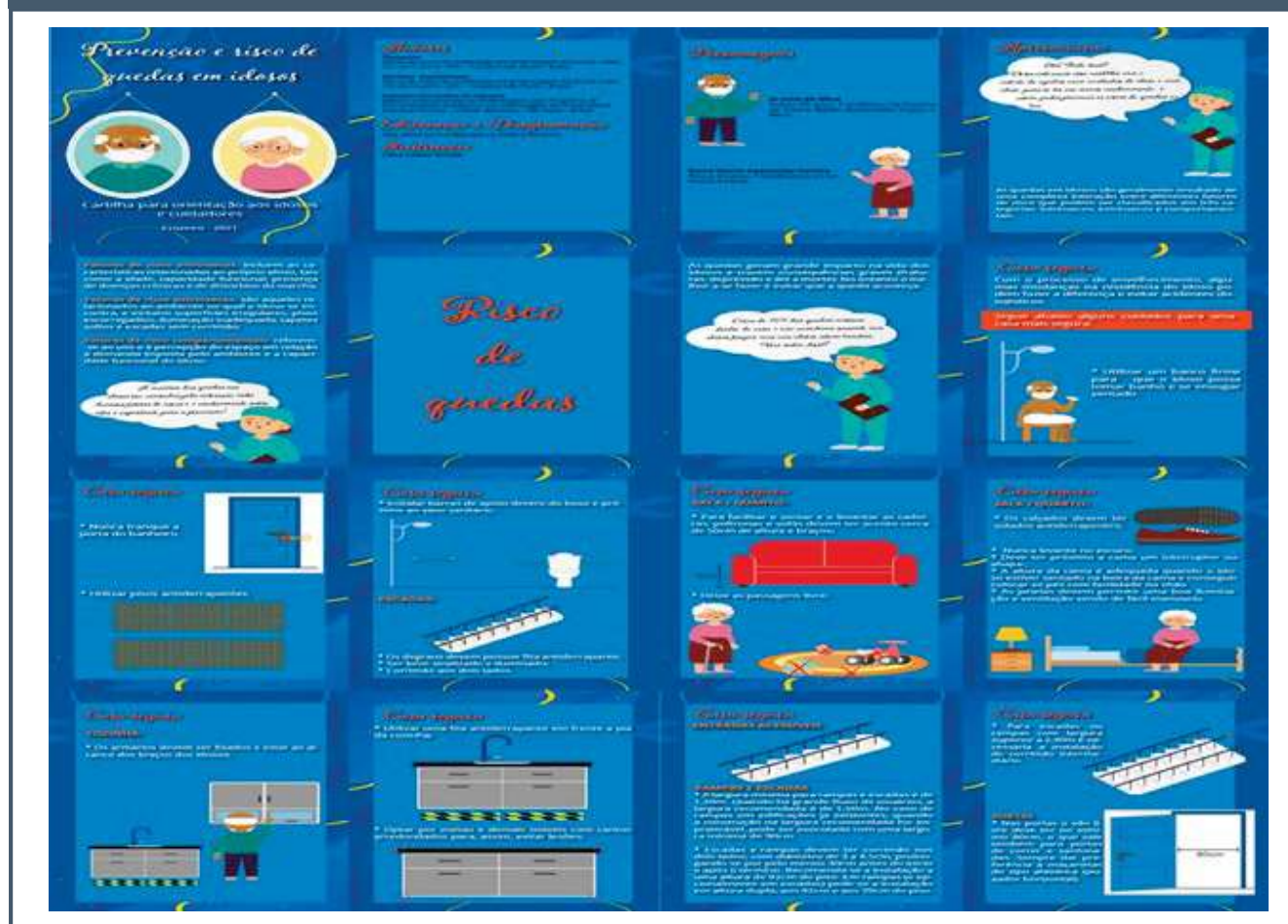
The booklet for the prevention of falls entitled “Prevention and risk of falls in the elderly in the home environment”, in its first version, was built with 20 pages, among which were the cover,

back cover, technical sheet, cover page and presentation page.

The characters present in the educational material were: a lady, called Ms. Maria Aparecida; an old man named Mr. José da Silva and a nurse named Ana. The latter interacts with the reader throughout the exposed content.

The content was divided into two topics: “Fall risk situation” (in which the definition and characterization of falls is presented); “Safe house” (containing tips to keep the environment of the nursing home safer). It is worth mentioning that the illustrated scenario corresponded to the elderly people’s home, as shown (Figure 1) some pages of the partial version of the booklet.

Figure 1. Pages of the booklet entitled: “Prevention and risk of falls in the elderly in the home environment”. 2021 (Partial version)



Source: Authors, 2021

Table 1. Agreement of professionals regarding the items in the booklet.

Variables	Totally disagree	Disagree	Agree	Totally agree
1. Objective				
1.1 The objectives are consistent with the needs of the elderly in their homes.			06 (42,9%)	08 (57,1%)
1.2 This booklet is a necessary tool that can be used to guide the elderly in their homes.			07 (50%)	07 (50%)
2. Content				
2.1 The educational booklet is suitable for the elderly and their companions.			07 (50%)	07 (50%)
2.2 The booklet provides information on the risks and prevention of falls in the elderly.			06 (42,9%)	08 (57,1%)
2.3 The text is presented clearly and objectively.		02 (14,3%)	06 (42,9%)	06 (42,9%)
2.4 The information presented is scientifically correct.		01 (7,1%)	06 (42,9%)	07 (50%)
2.5 The contents are varied and sufficient to achieve the objectives of the booklet.			08 (57,1%)	06 (42,9%)
2.6 There is a logical sequence of content presented.			05 (35,7%)	09 (64,3%)
3. Language				
3.1 The information presented is clear and understandable.		01 (7,1%)	05 (35,7%)	08 (57,1%)
3.2 The writing style corresponds to the level of knowledge of the target audience.		03 (21,4%)	05 (35,7%)	06 (42,9%)
3.3 The information is well structured			05 (35,7%)	09 (64,3%)
3.4 The information is in accordance with the spelling.		02 (14,3%)	04 (28,6%)	08 (57,1%)
3.5 The writing used is attractive.		01 (7,1%)	07 (50%)	06 (42,9%)
4. Relevance				
4.1 The themes portray key points for the orientation of the elderly and their companions.			04 (28,6%)	10 (71,4%)
4.2 The booklet can reach an understanding in relation to the risks of falls and their prevention.			07 (50%)	07 (50%)
4.3 The educational booklet can help to reduce falls among the elderly in their homes.			06 (42,9%)	08 (57,1%)
4.4 The topic is relevant.			02 (14,3%)	12 (85,7%)
5. Illustrations				
5.1 The illustrations used are relevant to the content of the material.			02 (14,3%)	12 (85,7%)
5.2 The illustrations express the information to be transmitted.			04 (28,6%)	10 (71,4%)
5.3 The number of illustrations is sufficient.			04 (28,6%)	10 (71,4%)
5.4 The characters are charismatic.			05 (35,7%)	09 (64,3%)
5.5 The presentation of characters and situations is sufficient.		01 (7,1%)	06 (42,9%)	07 (50%)
5.6 The characters remind patients of the reality that the educational booklet proposes.		01 (7,1%)	02 (14,3%)	11 (78,6%)
6. Layout				
6.1 The presentation of the booklet is attractive.			06 (42,9%)	08 (57,1%)
6.2 The presentation of the booklet is logically organized.			05 (35,7%)	09 (64,3%)
6.3 The content is presented with fonts in a suitable size and font for reading.	01 (7,1%)	04 (28,6%)	04 (28,6%)	05 (35,7%)
6.4 The font used facilitates the reading of the material.	02 (14,3%)	02 (14,3%)	05 (35,7%)	05 (35,7%)
6.5 Contrast with different colors has been done properly.		02 (14,3%)	06 (42,9%)	06 (42,9%)
6.6 The layout of the text is adequate.			07 (50%)	07 (50%)
6.7 The number of pages is adequate.			06 (42,9%)	08 (57,1%)
7. Motivation				
7.1 The title is attractive and arouses interest in reading.			02 (14,3%)	12 (85,7%)

7.2 The content arouses interest in reading.	04 (28,6%)	10 (71,4%)
7.3 The content is motivating and encourages the reader to continue reading.	04 (28,6%)	10 (71,4%)

Source: Authors, 2021

To make the booklet didactic and understandable, the topic was approached in a clear and objective way, with titles and highlighted images, simple language and a logical sequence of information. The information was manifested, at first, by the explanation and guidance by the character of nurse Ana and by the tips of the elderly.

Content validation was carried out by 14 professionals in the area of health for the elderly, including 8 nurses, 5 physiotherapists and 1 physical educator. Regarding the area of expertise, 3 worked in teaching and 11 in care. With regard to teaching experience, 14 had experience in the health of the elderly.

It has information on age, sex, training time, as for the evaluated items regarding the objective, content, language, relevance, illustration, layout and motivation, which are detailed in table 1.

For the discordant items, suggestions and improvements in the illustrations, spelling corrections and replacement of the font of the letters were pointed out.

Among the suggestions, the reformulation of some sentences was requested to facilitate the understanding of the target audience; enhancing illustrations with vibrant color enhancement, as well as including images representative of best practices in the text. These pointed details contributed to the enrichment of the product and to the improvement of its applicability, through the reformulation of information, replacement of terms and revision of the illustrations.

As observed in table 1, the 33 items were evaluated by the judges as adequate, there was a level of agreement of 100%, agreement on the objectives of the educational material was unanimous, as well as its content and relevance to clinical practice. The global CVI

in the validation with judges was equal to 1.0, which is considered the gold standard.

In view of these results, only one validation round was carried out with the judges, given that the suggestions for modifications were minimal and would not invalidate the material.

All these changes were accepted, so the designer was asked to adapt the material to the judges' suggestions and produce the final version of the booklet, as shown in the following figure:

DISCUSSION

The booklet entitled "Prevention and risk of falls in the elderly in the home environment", elaborated in this research, it aims to offer a playful tool to provide guidance to the family, the caregiver and the elderly person, aiming to minimize accidents with falls in the home environment.

As with the booklet developed in this study, some nurses also built and validated educational materials based on the assumptions of the self-efficacy theory. Thus, this construct is an alternative to guide the development of educational materials in the health area.⁽¹⁵⁾

The proposal to build educational material to prevent falls in the elderly was due to the need to illustrate routine situations and provide the opportunity for the elderly to analyze their life context through projections. When, in an educational session, the participant is given the opportunity to see himself in someone else, this process helps in learning, facilitating the internalization of knowledge and contributing to a change in attitude.⁽¹⁶⁾

In terms of contextual data, it is known that the number of falls in the elderly increases daily. With this, the need arises to intervene in the preven-

tion of these events. Educational materials stand out in this context as they are used to mediate health policies and practices. These educational practices, if used properly, help in the transfer of information, given that, in general, they tend to support vertical communication between professional and patient, just by exposing the information.⁽¹⁷⁾

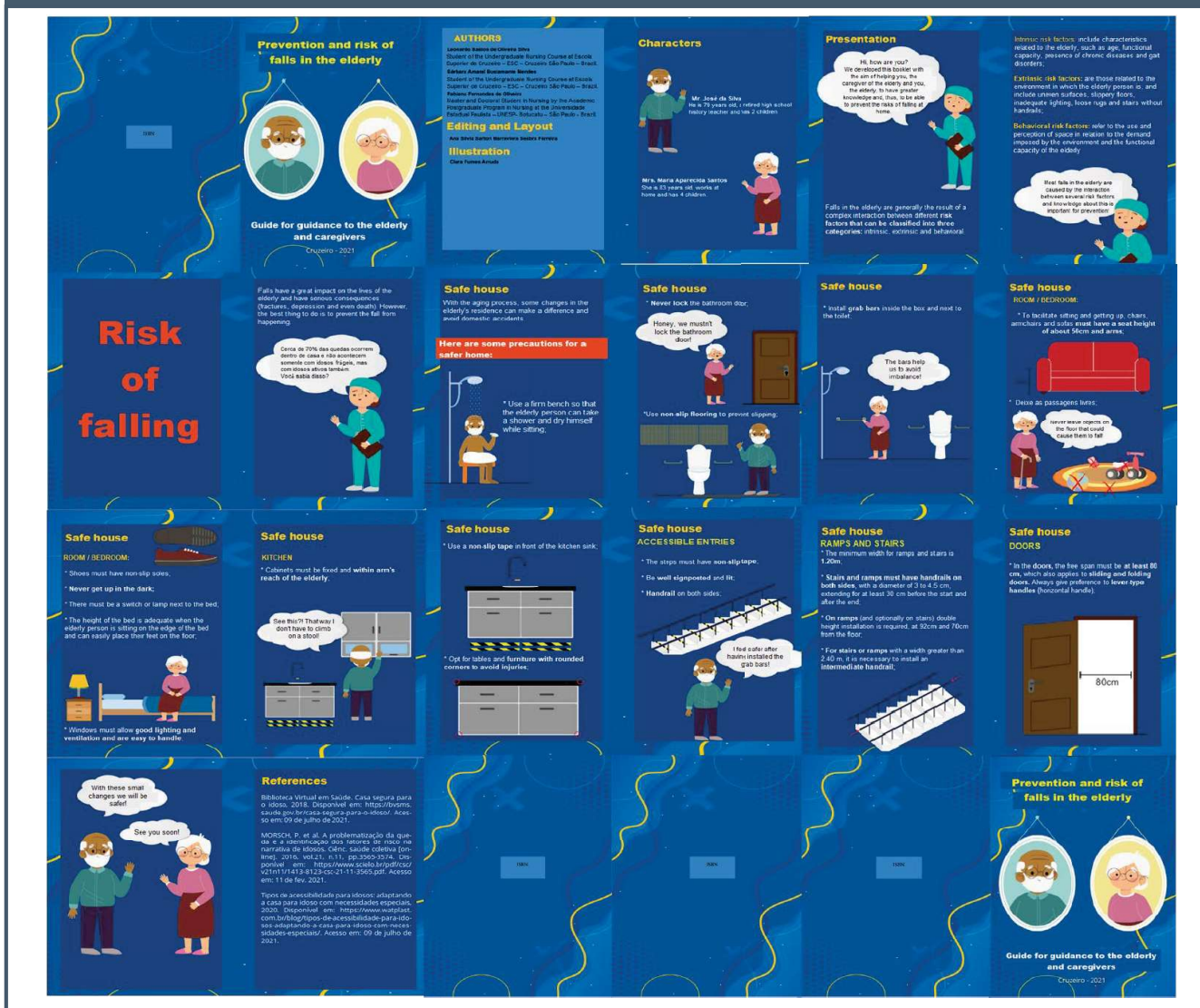
The bibliographic survey was also an important step in the construction of educational materials, as it helped in the analysis and synthesis of information. It was possible to summarize the body of knowledge, which can be considered the basis for the identification of updated scientific knowledge and, thus, identifying gaps to be explored.⁽¹⁶⁾

This study allowed us to realize that preventing falls is a major challenge that requires the active involvement of several areas of care. This multi-professional collaboration can reduce the probability of falls, through a thorough risk assessment and the implementation of individualized preventive measures, including several areas of knowledge.⁽¹⁸⁾

We argue that it is essential to analyze and make available scientific evidence on health education for the prevention of falls. This evidence can be used during care focused on patient safety in a hospital and home environment. With this, it is possible to benefit decision making regarding patient education and the best way to implement it.⁽¹⁹⁾

However, it is noteworthy that the understanding of the booklet is not only achieved by the adequacy of the verbal language, but also by the complementation of the illustrations and images existing in the material. This combination helps action on health promotion and education work, therefore creating conditions for the target population to develop the ability to strengthen the self-care behaviors described there.⁽²⁰⁾

Figure 2. Pages of the booklet entitled: "Prevention and risk of falls in the elderly in the home environment". 2022 (Final version)



Source: Authors, 2021

Regarding what was exposed in this study, we affirm that the educational materials constructed and validated provide educational interventions based on health promotion actions, strengthening the individual's ability to identify their demands and recognize self-care attitudes.⁽²¹⁻²²⁾

The present study cooperates for the scientific advancement and knowledge of Nursing, because, in the care and academic environments, the booklet, with an educational focus and which was

validated by judges, can be used in the daily practice of care for the elderly.

It is believed, however, that it is pertinent, after construction and validation, to verify the effectiveness of the educational material in guiding the patient in relation to the prevention of falls in the home environment.

The study has a limitation regarding the validation process, which was performed only by professionals. Due to the COVID 19 pandemic, the validation process with the target audience

was not possible.

Another limitation refers to the generalization of the results, given that the booklet specifically addresses the prevention of falls in the home context, which made it difficult to discuss the findings with the same theme.

CONCLUSION

The present study made it possible to strengthen the bond between the caregiver, the elderly and their family,

encouraging the participation of all in the prevention of falls.

The educational material is an instrument proposed as a guide so that it can be used both in their homes and in health centers and in long-stay ins-

titutions for the elderly as a source of guidance and information to the population.

In this way, it is expected that, in the long term, there will be a reduction in the rates of falls at home in the elderly,

as the material constructed helps in the safety of the elderly, as well as improving the quality of care and health education carried out by Nursing. Consequently, all this can contribute to improving the quality of life of the elderly.

REFERENCES

- Escorsim, S.M. O envelhecimento no Brasil: aspectos sociais, políticos e demográficos em análise. *Serv. Soc. Soc.*, São Paulo, n. 142, p. 427-446, set./dez. 2021 doi.org/10.1590/0101-6628.258
- SBGG. Sociedade Brasileira de Geriatria e Gerontologia. Disponível em: <https://sbgg.org.br/quedas-de-idosos-representam-um-grave-problema-de-saude-publica-alerta-sbgg-2> Acesso em: 30 de set.2021.
- Souza LKM de, Pereira VMA, Aquino AN, Almeida MM de, Serafim JL, Galvão PVM, Marques D de AV. Perfil epidemiológico e avaliação do risco de quedas em idosos usuários da Estratégia Saúde da Família. *RSD [Internet]*. 2021Set. 19 [citado em 2021Oct.4]; 10 (12): e262101220277. Disponível em: <https://rsdjournal.org/index.php/rsd/article/view/20277>
- Leite AC, Silva MPB, Alves RSS, Silva M de L, Gomes BP, Almeida DS, Barbosa FN, Avelino JT, Mendes VB, Santos MA do N, Gomes MR da S, Lima EW de M, Oliveira JT de S, Farias SLP de, Silva MB de S, Marinho RLB, Moura LC de, Apolinário JM dos S da S, Araújo GB, Andrade TM de. Contributionsofnursingcare in thepreventionoffallsandfractures in healthcare for theelderly. *RSD [Internet]*. 2021Mar.27 [cited 2021Oct.4];10(3):e57110313369. Available from: <https://rsdjournal.org/index.php/rsd/article/view/13369>
- Oliveira, Rouslanny Kelly, Iolanda Gonçalves de Alencar Figueiredo, Ana Maria Ribeiro dos Santos, Fernanda Valéria Silva Dantas Avelino, & Silvana Santiago da Rocha. "Comportamento social frente à segurança do idoso acerca do risco de queda à luz da fenomenologia." *Enfermagem em Foco [online]*, 12.1 (2021): sem paginação Web. 4 Out. 2021
- Ximenes MA, Fontenele NA, Bastos IB, Macêdo TS, Galindo Neto NM, Caetano JA, et al. Construção e validação de conteúdo de cartilha educativa para prevenção de quedas no hospital. *Acta Paul Enferm.* 2019;2019;32(4):433-41. doi.org/10.1590/1982-0194201900059
- Torres, Heloisa, & Danielle Vasconcellos de Paula. "Avaliação da cartilha para orientação da prática do autocuidado em Diabetes Mellitus [Evaluationof a primer givingguidanceon Diabetes Mellitus self-care] [Evaluación del manual para orientación de lapracticadel autocuidado en Diabetes Mellitus]." *Revista Enfermagem UERJ [online]*, 27 (2019): e7722. Web. 4 Out. 2021DOI: <http://dx.doi.org/10.12957/reuerj.2019.7722>
- Leite SS, Áfio ACE, Carvalho LV, Silva JM, Almeida PC, Pagliuca LMF. ConstructionandvalidationofanEducationalContentValidationInstrument in Health. *RevBras Enferm [Internet]*. 2018;71(Suppl 4):1635-41. [The maticIssue: Education and teaching in Nursing] DOI: <http://dx.doi.org/10.1590/0034-7167-2017-0648>
- Pasquali L. Instrumentação psicológica: fundamentos e práticas. Porto Alegre: Artmed; 2010.
- Barros CFM. Casa segura: o conceito. 2008. Disponível em: <http://www.casasegura.arq.br/conceito.php>. Acessado em 23 de setembro de 2008
- Feitosa YS, Sampaio LRL, Moraes JT, Moreira TMM, Rolim KMC, Dantas TP, et al. Construction and validation of educational technology to prevent complications in intestinal ostomies / periestomy skin. *Rev Bras Enferm.* 2020;73(Suppl 5):e20190825. doi: <http://dx.doi.org/10.1590/0034-7167-2019-0825>
- Jasper MA. Expert: a discussionoftheimplicationsoftheconcept asused in nursing. *J AdvNurs.* 1994; 20(4):769-76.
- Pasquali L. Psicometria: teoria e aplicações. Brasília (DF): UnB; 1997.
- Alexandre NMC, Coluci MZO. Content validity in the development and adaptation processes of measurement instruments. *Cienc. saude colet. [Internet]*. 2011 [acesso em]; 16(7). Disponível em: <http://dx.doi.org/10.1590/S1413-81232011000800006>.
- Leite SS, Áfio AC, Carvalho LV, Silva JM, Almeida PC, Pagliuca LM. Construção e validação de instrumento de validação de conteúdo educativo em saúde. *RevBrasEnferm.* 2018; 71(4): 1635-41.
- Rodrigues JC, Avila MA, Driusso P. Cartilha educativa para promoção da saúde entre mulheres com dismenorrea primária. *Rev Bras Promoç Saúde.* 2021;34:11471.
- Renó Gasparotto, Lúvia Pimenta, Falsarella, Gláucia Regina, Valente Coimbra, Arlete Maria As quedas no cenário da velhice: conceitos básicos e atualidades da pesquisa em saúde. *Revista Brasileira de Geriatria e Gerontologia [en linea]*. 2014, 17 (1), 201-209 [fecha de Consulta 18 de Octubre de 2021]. ISSN: 1809-9823. Disponível em: <https://www.redalyc.org/articulo.oa?id=403838834019>
- Lima, R. B. S. Desenvolvimento e avaliação de tecnologias educacionais para prevenção de quedas em idosos 2018. 122 f. Dissertação (Mestrado em Enfermagem) - Faculdade de Farmácia, Odontologia e Enfermagem, Universidade Federal do Ceará, Fortaleza, 2018.
- Ferenhof, H A; Fernandes, R F. Desmistificando a revisão de literatura como base para redação científica: método SFF. *Revista ACB, [S.l.]*, v. 21, n. 3, p. 550-563, dez. 2016. ISSN 1414-0594. Disponível em: <https://revista.acbsc.org.br/racb/article/view/1194>. Acesso em: 19 out. 2021.
- Cunha LFC, Baixinho CL, Henriques MA. Preventing falls in hospitalized elderly: design and validation of a team intervention. *Rev Esc Enferm USP.* 2019;53:e3479. DOI: <http://dx.doi.org/10.1590/S1980-220X2018031803479>
- Moura IH, Silva AFR, Rocha AESH, Lima LHO, Moreira TMM, Silva ARV. Construction and validation of educational materials for the prevention of metabolic syndrome in adolescents. *Rev. Latino-Am. Enfermagem.* 2017;25:e2934; DOI: <http://dx.doi.org/10.1590/1518-8345.2024.2934>. Acesso em: 19 out. 2021.
- Rodrigues JC, Avila MA, Driusso P. Cartilha educativa para promoção da saúde entre mulheres com dismenorrea primária. *Rev Bras Promoç Saúde.* 2021; 34:11471.