



CONSTRUCTION AND VALIDATION OF AN EDUCATIONAL BOOKLET FOR MOBILE DEVICES ON BREASTFEEDING


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ABSTRACT

Objective: to validate an educational booklet for use on mobile devices on breastfeeding for family caregivers of newborns and infants.

Method: a methodological research conducted from August 2017 to November 2018. Six stages were used to construct the booklet: search for themes based on literature review; theoretical study of the themes; booklet development; booklet validation by expert judges; booklet validation by the target audience; adequacy of educational material. Validation by expert judges took place via email and by the target audience at a rooming-in of a municipal hospital in Rio das Ostras, Rio de Janeiro, Brazil. Content Validity Index was used for validation.

Results: the study obtained as a final result the construction and validation of an educational booklet entitled “Uncomplicating Breastfeeding”. The booklet was considered satisfactory, presenting an overall Content Validity Index among judges of 0.94 and among the target audience, of 0.98. However, all judges suggested improvements in the booklet, being considered and modified for the final version of the material, which will be made available on a link for mobile devices.

Conclusion: the constructed educational booklet was validated for content and appearance by judges and the target audience, obtaining satisfactory indexes. It is an educational technology that can be used by health professionals and family caregivers of newborns and infants aiming at promoting breastfeeding and, consequently, reducing early weaning rates.

DESCRIPTORS: Breast feeding. Nursing. Child health. Teaching materials. Mobile applications. Validation studies.

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CONSTRUÇÃO E VALIDAÇÃO DE CARTILHA EDUCATIVA PARA DISPOSITIVOS MÓVEIS SOBRE ALEITAMENTO MATERNO

RESUMO

Objetivo: validar uma cartilha educativa para uso em dispositivos móveis sobre aleitamento materno para familiares cuidadores de recém-nascidos e lactentes.

Método: pesquisa do tipo metodológica realizada no período de agosto de 2017 a novembro de 2018. Utilizaram-se seis etapas para a construção da cartilha: busca dos temas a partir de revisão de literatura; estudo teórico dos temas; elaboração da cartilha; validação da cartilha por juízes especialistas; validação da cartilha pelo público-alvo; e adequação do material educativo. A validação pelos juízes especialistas ocorreu via correio eletrônico e pelo público-alvo no Alojamento Conjunto de um hospital municipal em Rio das Ostras, Rio de Janeiro, Brasil. O Índice de Validade de Conteúdo foi utilizado para a fase de validação.

Resultados: o estudo obteve como resultado final a construção e validação da cartilha educativa intitulada “Descomplicando a Amamentação”. A cartilha foi considerada satisfatória, apresentando Índice de Validade de Conteúdo global entre os juízes de 0,94 e entre o público-alvo de 0,98. Entretanto, os juízes sugeriram melhorias na cartilha, sendo consideradas e modificadas para a versão final do material, que será disponibilizada em um *link* para dispositivos móveis.

Conclusão: a cartilha educativa construída foi validada quanto ao conteúdo e aparência pelos juízes e pelo público-alvo, obtendo índices satisfatórios. Constitui-se em uma tecnologia educativa que pode ser utilizada pelos profissionais de saúde e pelos familiares cuidadores de recém-nascidos e lactentes visando à promoção do aleitamento materno e, conseqüentemente, à diminuição dos índices de desmame precoce.

DESCRITORES: Aleitamento materno. Enfermagem. Saúde da criança. Materiais de ensino. Aplicativos móveis. Estudos de validação.

CONSTRUCCIÓN Y VALIDACIÓN DE UN FOLLETO EDUCATIVO PARA DISPOSITIVOS MÓVILES SOBRE LACTANCIA MATERNA

RESUMEN

Objetivo: validar un folleto educativo para su uso en dispositivos móviles sobre lactancia materna para los cuidadores familiares de recién nacidos y bebés.

Método: investigación metodológica realizada entre agosto de 2017 y noviembre de 2018. Se utilizaron seis pasos para la construcción del folleto: búsqueda de temas basados en revisión de literatura; estudio teórico de temas; preparación del folleto; validación del folleto por jueces expertos; validación del folleto por parte de la audiencia objetivo; y adecuación del material educativo. La validación por parte de los jueces expertos se realizó vía e-mail y por el público objetivo en el Alojamiento Conjunto de un hospital municipal en Rio das Ostras, Rio de Janeiro, Brasil. Se utilizó el Índice de Validez de Contenido para la fase de validación.

Resultados: el estudio obtuvo como resultado final la construcción y validación del folleto didáctico titulado “Lactancia materna sin complicaciones”. El folleto se consideró satisfactorio, con un índice de validez de contenido general entre los jueces de 0,94 y entre la audiencia objetivo de 0,98. Sin embargo, los jueces sugirieron mejoras al folleto, que fueron consideradas y modificadas para la versión final del material, que estará disponible en un enlace a dispositivos móviles.

Conclusión: el folleto educativo construido fue validado en contenido y apariencia por los jueces y el público objetivo, obteniendo índices satisfactorios. Es una tecnología educativa que puede ser utilizada por los profesionales de la salud y cuidadores familiares de recién nacidos y lactantes para promover la lactancia materna y, en consecuencia, reducir las tasas de destete precoz.

DESCRITORES: Lactancia materna. Enfermería. Salud del niño. Materiales de enseñanza. Aplicaciones móviles. Estudio de validación.

INTRODUCTION

Breastfeeding, especially in the first six months of life, is an essential natural strategy for the child's growth and development, considering that breast milk contains all the nutrients necessary to supply it and also allows the creation of a bond between mother and baby, being significant for the reduction of infant morbidity and mortality.¹

The World Health Organization (WHO) has determined, as one of the global nutrition targets for 2025, to increase exclusive breastfeeding rates to at least 50%.² However, in low- and middle-income countries, only 37% of children under six months of age are exclusively breastfed.³ In Brazil, the rates of length, exclusivity and early onset of the practice also did not reach satisfactory levels, thus converging for early weaning,⁴ with a prevalence of exclusive breastfeeding in the first six months of life of only 41% in 2008.⁵

In this context, developing educational activities on the subject by health professionals, especially nurses, emerges as an essential element for breastfeeding promotion consequently for the reduction of early weaning rates and infant morbidity and mortality. Therefore, it is necessary to sensitize family members to self-care, through learning opportunities, thus contributing to autonomy in the care of newborns and infants.⁶

Therefore, educational materials are important in the health education process, since they enable teaching-learning through interactions mediated by the announcer (nurse), patient and family (reader) and the written educational material (object of discourse),⁷ including functioning as resources readily available through the doubts of family members in the realization of care in the socio-family context.

The production of these materials, especially for smartphones or other mobile devices, makes it possible to view them as something concrete and accessible anywhere and anytime.⁸ The 30th Annual Survey of the Use of Information Technologies of the Getúlio Vargas Foundation states that in Brazil, in 2019, there are an average of two digital devices per inhabitant. According to the research, there are 420 million of these devices in the country, among them 235 million are smartphones, which is equivalent to a percentage of 56% compared to other digital devices as desktop (21%), notebook (14%), and tablet (9%).⁹

Thus, considering the need to use educational technologies for nursing education practices in the theme, searches were conducted in different information resources, being Scientific Electronic Library Online (SCIELO), Nursing Database (BDENF) and Latin American & Caribbean Literature on Health Sciences (LILACS), with the descriptors: Breastfeeding; Nursing; Child health; Teaching materials; Mobile apps; Validation studies. However, there was a scarcity of scientific studies on the development and validation of educational materials on breastfeeding that can be used in mobile applications. Moreover, it was noted the absence of digital platforms that had free educational booklets on the subject, which justifies the realization of this study.

Therefore, this study aims to validate an educational booklet for use on mobile devices on breastfeeding for family caregivers of newborns and infants.

METHOD

Research developed from the six stages foreseen in methodological studies. The first stage consisted of search for themes; the second, in theoretical study of themes; the third, in educational booklet development; the fourth, in booklet validation by expert judges; the fifth, in educational booklet validation by the target audience; and finally, the sixth, in adequacy of the educational material.¹⁰

Validation by expert judges took place via e-mail and by the target audience in the rooming-in of a municipal hospital in Rio das Ostras, Rio de Janeiro, Brazil, between May and November 2018.

In the fourth stage, expert judges were invited to participate in the study through a selection by convenience, through the snowball technique, considering the adequacy to the inclusion criteria of the study: being a professional nurse, expert in neonatal and/or pediatric and/or obstetric nursing and with previous experience in educational practices related to the subject. The exclusion criterion was to carry out exclusively administrative activities.

Professionals were invited via e-mail by sending an invitation letter containing information about the research and its objectives. Upon acceptance, the educational booklet in PDF format and the validation instrument were sent, stipulating a period of ten days to return the material analysis.

In the fifth stage, the booklet was submitted to consideration by the family caregivers of newborns. In this phase, participants were also selected for convenience according to the following inclusion criteria: puerperal women and family literate caregivers over the age of 18 years whose newborns were in good health and hospitalized in the research scenario. Exclusion criteria were being puerperal women or family members with some impairment in their health status that hindered the booklet assessment and/or with newborns hospitalized in a nursery.

In to make the target audience agree to participate in the study, the research objectives and its justification were personally explained. Upon acceptance, the target audience had an average time of 30 minutes to assess the booklet, from its visualization on a mobile device, in this case a smartphone, and respond to the validation instrument.

In relation to data collection, two validation instruments were used, one directed to the expert judges and the other to the target audience. The instrument made available to judges contained two parts. The first referring to judge's characterization data and the second to assessment items of the educational booklet, being subdivided into six categories: content; language; illustrations; presentation; cultural adequacy; and the last item was free for suggestions for improvement.

The instrument targeted at the target audience was also divided into two parts. The first part contained the characterization data and the second corresponded to the assessment items of the booklet, which were subdivided into five categories: content; writing; appearance; motivation; and the last was also a space for suggestions for booklet improvement.

In both instruments, each item mentioned had a scale of Likert with four options numbered from 1 to 4, being, respectively, I disagree very much, I disagree little, I agree little, I agree very much, in which participants marked what was compatible with their assessment to each item judged.

For the booklet validation analysis process, the Content Validity Index (CVI) was used, which allows assessing item by item of each instrument.¹¹ This index was calculated using the sum of the answers I agree little (3) and I agree very much (4), divided by the total number of participants. Thus, in this analysis, items that reached a percentage of agreement among participants were considered valid, with a pre-established level of at least 80%, as recommended by the literature.¹²

The study ensured all ethical precepts in accordance with Resolution 466/12 of the Brazilian National Health Council (*Conselho Nacional de Saúde*). All participants signed the Informed Consent Form (ICF).

RESULTS

The study obtained as a result the construction and validation of an educational booklet entitled “*Descomplicando a Amamentação*” (freely translated as Uncomplicating Breastfeeding), soon follows the description of the study stages.

Steps 1 and 2: search and theoretical study of the themes to make up the educational booklet

First, a review of scientific literature on the main themes about breastfeeding was conducted, using the descriptors: breastfeeding, nursing, child health, teaching materials and validation studies.

After searches, they were used as a basis to compose the manual booklet of the Ministry of Health and results of studies, including those developed in the same research scenario, considering that one of them described the teaching-learning process related to breastfeeding of nursing puerperal women¹³ and another identified the knowledge of nursing mothers about the subject and its main doubts.¹⁴

It is noteworthy that the main doubts about breastfeeding were related to the advantages of breastfeeding, the time of exclusive and complemented breastfeeding and breastfeeding on demand. Moreover, there were doubts related to the position of the baby to be breastfed, the correct handle and the care of the breasts so that the practice of breastfeeding becomes more effective. Some nursing mothers, according to the study, have also complained that their milk is weak.¹⁴

In the theoretical study on breastfeeding, coherence and consistency among the selected materials were assessed. Moreover, the educational booklet was constructed through the main doubts of puerperal women and family members, which makes it a more reliable instrument, because part of the main educational demands of the target audience itself, besides having updated scientific foundations.

Stage 3: educational booklet development

In this stage, the recommendations for the effectiveness of educational materials were considered, with the characteristics of content, encompassing their ease of reading, clarity and appearance. As for illustrations in the booklet, there were 14 images, which were elaborated in freehand drawings by a professional who was based on didactic images of websites; then these primary pencil illustrations were finished and colored by another professional expert in graphic design and design.

The process of processing the illustrations was carried out in the program Adobe Photoshop for them to be improved. After this process, the resulting material was exported to the program Adobe Illustrator for creation in vectorization of illustrations and addition of colors, light and shadows, following the color palette of the educational booklet. The original files were saved in “AI” format (Adobe Illustrator), the illustrations exported to the PNG format and the files compiled in a “RAR” document. The booklet layout was developed by one of the researchers.

It is worth mentioning that all illustrations were elaborated seeking to represent the diversity of the Brazilian population, so that the educational booklet presented in its bulge the different ethnicities so that, in general, the target audience felt represented. Regarding the style of writing the booklet, we used the font Trebuchet MS size 40 for titles, size 18 for texts and size 24 for subtitles.

Step 4: educational booklet validation by expert judges

The group of expert judges was composed of 12 nurses who agreed to participate in the study, among 18 who were initially invited. Judges’ profiles were outlined, 12 (100.0%) female, eight (66.6%) doctoral nurses, two (16.6%) master nurses and two expert nurses (16.6%). The average age

of all judges was 46.5 years. In relation to the time of experience with educational practices related to breastfeeding, the average time was 21 years of experience.

Table 1 presents each item of the validation instrument by judges, the number of judges who judged the item with the captions “I disagree very much and disagree little” and “I agree little and I agree a lot” and also CVI per item and overall CVI.

Table 1 – Assessment of expert judges regarding content, language, illustrations, presentation and cultural adequacy of the booklet, Rio das Ostras, Rio de Janeiro, Brazil, 2018.

Item	I disagree very much/ disagree little	I agree little/ very agree	Item CVI*
1 Content			
1.1 The material is easy to understand	1	11	0.91
1.2 Information promoting breastfeeding is addressed	-	12	1.00
1.3 The material has a scientific accuracy	1	11	0.91
2 Language			
2.1 Reading is appropriate to the reader's understanding	1	11	0.91
2.2 The information is clearly presented	1	11	0.91
2.3 Common words are used in vocabulary	1	11	0.91
2.4 Learning is facilitated through short or topical texts	-	12	1.00
3 Illustrations			
3.1 The cover draws the reader's attention and is consistent with the subject	-	12	1.00
3.2 Learning is facilitated through self-explanatory illustrations	1	11	0.91
3.3 Illustrations are relevant for understanding the content	-	12	1.00
3.4 Illustrations are suitable for the target audience	1	11	0.91
3.5 Images are in adequate size and quantity	1	11	0.91
4 Presentation			
4.1 The material has an appropriate organization	-	12	1.00
4.2 Font size and type make it easy to read	-	12	1.00
5 Cultural adaptation			
5.1 The material is culturally suited to the language and experience of the public	1	11	0.91
5.2 The material presents culturally appropriate illustrations and examples	-	12	1.00
OVERALL CVI			0.94

*Overall CVI: Sum of all Content Validity Indexes divided by the total number of items in the validation instrument.

The overall CVI was calculated to highlight that the educational material presented satisfactory assessment in all items of the instrument, reaching a value of 0.94 (94.0%). Furthermore, it was possible to analyze that the mean CVI of the five items analyzed was greater than 0.95 (95.0%),

content, 0.94 (94.0%); language, 0.93 (93.0%); illustrations, 0.94 (94.0%); presentation, 1.0 (100.0%); and cultural adequacy, 0.95 (95.0%).

It should be noted that, although the items assessed did not obtain a CVI below 80%, the suggestions of the expert judges were analyzed and incorporated in the adequacy of the educational booklet, as far as possible.

Thus, certain elements (phrases and terms) of the booklet were removed and/or replaced, according to the suggestions of the expert judges, in order to facilitate the understanding of the booklet by the target audience. The final versions of some of the modified phrases were: “It’s what we call breastfeeding in free demand”; “It is recommended that the next feeding always begins with the last breast on which the baby breasted”; “Therefore, the help of the family is very important”; “When he finishes breast-feed, the baby needs to stand on his lap (upright position) so he can burp”; “Do not drink too much coffee and mate, as they can cause agitation in the baby”; and “All family and friends can help the mother to breastfeed by providing support, assisting in household chores, sweeping the house and doing the dishes, for example. Furthermore, they can help taking care of the other children and also the baby, such as changing diapers and bathing.”

Other changes were made because judges judged that certain information was not necessary, as they could confuse readers, such as the page that contained the specifications of the types of breastfeeding. Thus, the page was deleted.

In addition to sentences, two images have also been reworked. One referred to breast milking, in which they assessed the position of the hands at the time of incoherent breast massage. The other illustration depicted a mother holding a baby, on the page where she cited the importance of family and friends. Thus, the image was replaced by one of a family. Figure 1 represents illustrations prior to validation by judges and after substitution of images.





How it presented previously	After validation by judges
	
	

Figure 1 – Representation of the modified illustrations of the booklet before validation and after validation by judges, Rio das Ostras, Rio de Janeiro, Brazil, 2018.

Step 5: Booklet validation by target audience

This stage consisted of 22 participants, 17 (77.2%) females and five (22.7%) males. Among participants, there were ten puerperal women aged between 18 and 41 years; five parents, between 22 and 28 years old; three grandparents, between 40 and 59 years old; an aunt, aged 27 years; and three friends, between 20 and 43 years of age. Concerning the level of education of participants, 4 (18.1%) had elementary school, 14 (63.6%) complete high school, 1 (4.5%) complete higher education and 3 (13.6%) had incomplete higher education. Regarding occupation, 12 (54.5%) had formal work, 1 (4.5%) had informal, 1 (4.5%) had self-employed work, 6 (27.2%) did not work and 2 (9.0%) were students.

Table 2 shows each item of the validation instrument by the target audience, the number of participants who judged the items with the captions “I disagree very much and disagree little” and “I agree little and I agree a lot” and the CVI of each item and the general.

Table 2 – Assessment of the booklet by the target audience regarding content, writing, appearance and motivation, Rio das Ostras, Rio de Janeiro, Brazil, 2018.

Item	I disagree very much/ disagree little	I agree little/ very agree	Item CVI*
1 Content			
1.1 The material is easy to understand	-	22	1
1.2 The information is clearly presented	-	22	1
2 Writing			
2.1 The letters are in a suitable size	-	22	1
2.2 The letters have an appropriate shape	-	22	1
2.3 The text is easy to understand	-	22	1
3 Appearance			
3.1 The cover catches the attention	2	20	0,90
3.2 The images are easy to understand	-	22	1
3.3 Images are self-explanatory	-	22	1
3.4 The booklet seems organized	-	22	1
4. Motivation			
4.1 Motivation to see the booklet until the end	2	20	0,90
4.2 Motivation to think about breastfeeding	-	22	1
OVERALL CVI			0,98

*Overall CVI: Sum of all Content Validity Indexes divided by the total number of items in the validation instrument.

Overall CVI reached a value of 0.98 (98.0%) and the mean CVI of the four cases was calculated, being content, 1.0 (100.0%); writing, 1.0 (100.0%); appearance, 0.97 (97.0%); and motivation, 0.95 (95.0%). Moreover, it was found that the mean CVI of these items was also higher than 0.95 (95.0%).

Only one participant suggested changes in the booklet, which increased the size of the booklet source and elaborated a cover that would draw more attention to those who have no interest in breastfeeding the child. However, the suggestions were not considered, considering that all CVI were above the established average, being judged satisfactory, in general, by all other participants.

Step 6: adequacy of the educational booklet

The sixth stage was between steps 5 and 6 in order to adapt the educational material to expert judges' and target audience' opinions, and the items that were not considered coherent were modified through the validation instrument.

Although the booklet was well analyzed by the expert judges, they recorded their suggestions and contributions in order to ensure the best quality of educational material for the target audience. Such contributions improve the final version of the booklet and validate its purpose as educational material through the reformulation of information, substitution of terms, review of illustrations and even the need for some information. It is noteworthy that material adequacy occurred only after validation by expert judges, and there were no changes after validation by the target audience, given the overall CVI of 0.98 (98.0%) obtained at this stage.

After adequacy of the booklet by expert judges and the target audience, it will be made available in its final version in a link for mobile devices to be created for the purpose of disseminating the booklet on breastfeeding to a larger number of people.

Some of the 32 pages of the final version of the educational booklet "Uncomplicating Breastfeeding" were represented in Figure 2.

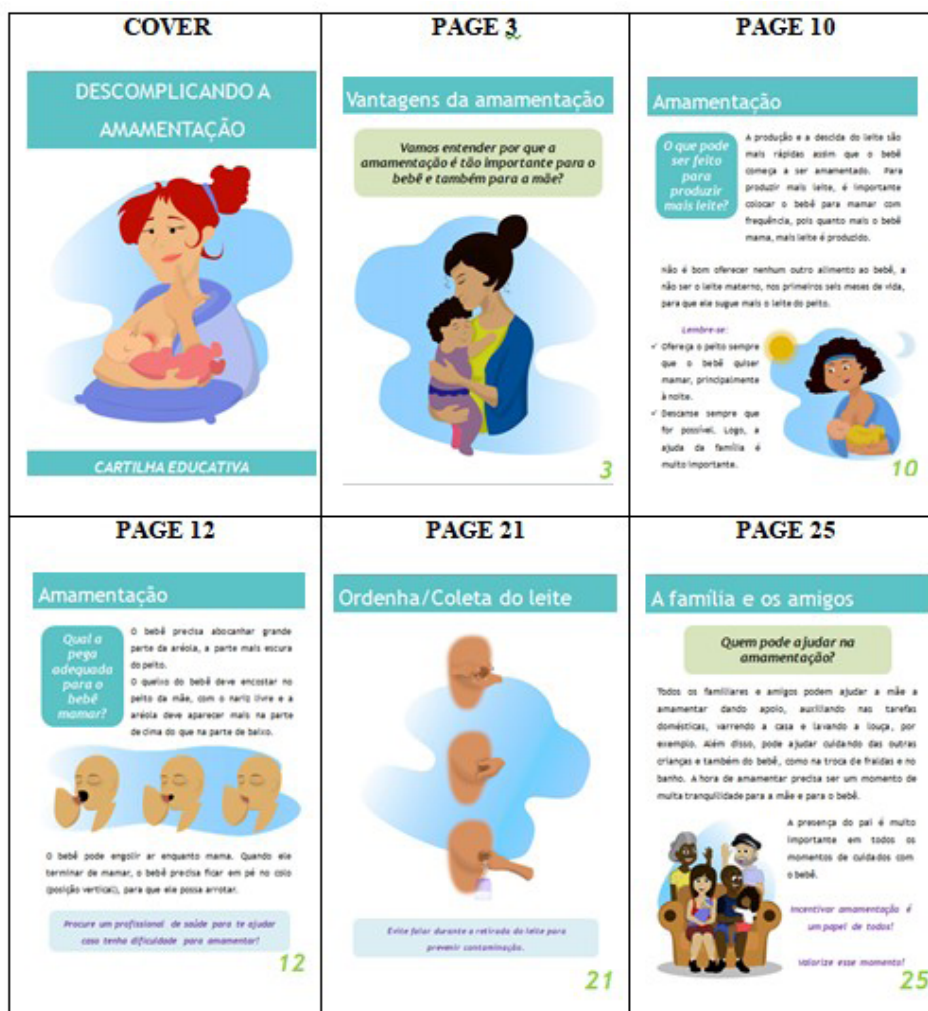


Figure 2 – Representation of the cover and some pages of a booklet called "Uncomplicating Breastfeeding" in its final version, Rio das Ostras, Rio de Janeiro, Brazil, 2018.

DISCUSSION

Educational material validation is a fundamental aspect to make them complete, with greater scientific rigor and ensure their legitimacy and credibility.¹¹ In addition to validation by expert judges, it is believed that an educational material validation with the target audience is fundamental for the study, since the researcher understands what is not appropriate and how the information is understood, and can modify what is not considered coherent.¹⁵

Educational technologies are necessary and significant, being able to improve the knowledge and autonomy of individuals, making the subject active in their own teaching-learning process. Research reveals that users' knowledge and doubts need to be assessed in constructing educational technologies, making them more effective,¹⁶ as was conducted in the study.

Weaning is known to be performed earlier and earlier and sometimes this interruption of breastfeeding is associated with deficit of maternal knowledge about the practice. Thus, constructing technologies that promote breastfeeding can contribute to the improvement in breastfeeding rates and, consequently, to reduce infant morbidity and mortality.¹⁰ Using educational technologies is an accessible option for raising awareness of the population, and can promote health through its active participation, besides allowing the family a later reading, serving as a reference in cases of doubts and facilitating daily decision-making.¹⁶

Thus, it was possible to analyze, from the results of the research, that the educational booklet "Uncomplicating Breastfeeding" was assessed both by judges and by target audience positively in relation to its content, language, appearance, motivation, presentation and cultural adequacy. Satisfactory individual CVIs were noticed for each iterate analyzed and overall CVIs were above the established average. However, suggestions from the judges were incorporated in order to improve and ensure the effectiveness of the educational material. Another study that validated educational material for the prevention of vertical transmission of HIV used CVI and also went through adaptations until reaching the final validated version,¹⁵ corroborating the importance of this validation process in developing qualified materials.

It was verified that the CVIs of all items of the instrument were greater than 80%, as established by the literature.¹² It is possible to notice that the item "presentation" received the highest CVI, 1.00 (100%), which means that the booklet is organized, with good ease of reading. Furthermore, all judges agreed that the booklet has culturally appropriate illustrations, which is important to attract the reader's attention. Regarding the assessment of the booklet by the target audience regarding content and writing, the booklet obtained 100% approval. Only two people (9.09%) disagreed little about the cover of the booklet to draw attention and motivation to read the material until the end.

The validation of the booklet "Uncomplicating Breastfeeding" by the target audience is necessary considering that many family members are unaware of the advantages of breastfeeding, as evidenced in a study that found that no nursing mother pointed out, for example, the benefits of breastfeeding for women's health, evidencing gaps in knowledge about the subject.¹⁴ Another study conducted in the city of Rio de Janeiro showed that mothers knew some advantages of breast milk for the baby, but did not understand that the practice is an adequate feeding for the child, which is safe and that sustains only the baby until six months of age.¹⁷

It was noticed from another research, which aimed to describe the knowledge and doubts of nursing mothers about breastfeeding in a maternity hospital in the interior of Rio de Janeiro, that they are little oriented about breastfeeding by health professionals, considering that 50% of the women interviewed were unaware of the need for breastfeeding on demand and 40% did not know the minimum time recommended by the WHO to continue breastfeeding complemented with other types of foods,¹⁴ which again reinforces the importance of building educational materials on the subject.

From this perspective, it is essential that the health professional be attentive to all issues involving breastfeeding in order to promote orientations consistent with the reality of each family. In health services, a daily discourse related to breastfeeding is common, focusing only on the nutritional and immunological value of breast milk, without considering the motivation of women to breastfeed and the emotional aspect that practice understands for both the child and the woman. Although breastfeeding is important from a biological point of view, it is essential to value the reality of the family and especially of women to make decisions about breastfeeding.¹⁷

Corroborating this issue, a study developed with nurses in a municipality of Bahia identified that the support of fathers, family and friends, in general, is one of the essential and facilitating aspects for breastfeeding promotion.¹⁸ Therefore, the importance of developing educational technologies not only for mothers, but also for the people who make up the support network for women is confirmed.

Using educational technologies on mobile devices has proved innovative. In the nursing field, mobile technologies have been modifying the role of nurses in relation to their relationship with other health professionals and patient care, allowing health promotion and encouraging patients' self-care. Therefore, mobile health technologies emerge as a useful and accessible alternative, since they are strategies that are part of the daily life of most people.¹⁹ It is worth considering that using mobile devices continues to expand. According to research, a third of the world's population would use smartphones by the end of 2018 for facilitating access to information.²⁰

The popularization of mobile phones has been the most impacted technological revolution in recent years.²¹ It should be emphasized that this health tool is not intended to replace the professionals' contact with patients, but rather to complement care, in order to guarantee people's autonomy with regard to self-care.¹⁹ Therefore, the availability of the educational booklet constructed and validated for use in mobile devices has the potential to help the understanding of families about breastfeeding, thus encouraging the autonomy of family caregivers of newborns and infants in the face of the theme.

As study limitations, it can be mentioned that, although material validation was satisfactory, more studies are needed to assess the effectiveness of this educational material and the means of making it available.

CONCLUSION

The educational booklet called "Uncomplicating Breastfeeding" was validated for content and appearance of both judges and target audience, obtaining satisfactory indexes.

This is an educational technology that can be used by health professionals, in order to reinforce orientations on the theme during their work process, and by family caregivers of newborns and infants aiming at promoting breastfeeding and, consequently, to decrease early weaning rates.

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NOTES

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CONTRIBUTION OF AUTHORITY

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There is no conflict of interest.

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