CONSTRUCTION AND VALIDATION OF EDUCATIONAL BOOKLET FOR BREASTFEEDING SUPPORT ROOM

CONSTRUÇÃO E VALIDAÇÃO DE CARTILHA EDUCATIVA PARA SALA DE APOIO À AMAMENTAÇÃO

CONSTRUCCIÓN Y VALIDACIÓN DE UN FOLLETO EDUCATIVO PARA LA SALA DE APOYO A LA LACTANCIA

ABSTRACT

Objective: to build and validate an educational booklet for the breastfeeding support room. Methods: methodological study carried out in three stages: bibliographic survey, preparation of educational material and validation by specialist referees. The material structure regarding the sequence of information, design, illustrations, colors and diagramming was made by a specialized professional. Results: the final production resulted in the booklet entitled: “I went back to work, how am I going to breastfeed?”. Nine specialist referees in the area participated in the validation, evaluating the aspects: “content” and “scientific accuracy” validated from the CVI calculation, with an average of 0.81, following the cut indicated by the literature considering these items validated for “appearance”. The level of agreement between specialist was considered to vary between 86.8 and 97.6%, with the minimum established being 75%, validating this aspect. Conclusion: the objective of building and validating an educational technology aimed at the breastfeeding room, pioneer in this specific focus, was achieved.

Keywords: Breast Feeding; Teaching Materials; Validation Study.

RESUMO

Objetivo: construir e validar uma cartilha educativa para a sala de apoio à amamentação. Métodos: estudo metodológico realizado em três etapas: levantamento bibliográfico, elaboração do material educativo e validação por juízes especialistas. A estrutura do material quanto à sequência das informações, design, ilustrações, cores e diagramação foi feita por profissional especializado. Resultados: a produção final resultou na cartilha intitulada: “Voltei a trabalhar, como vou amamentar?”. Participaram da validação nove juízes especialistas na área, avaliando os aspectos: “conteúdo” e “exatidão científica” validados a partir do cálculo do IVC, com média de 0,81, seguindo corte indicado pela literatura considerando esses itens validados para “aparência”. Considerou-se nível de concordância entre os especialistas variando entre 86,8 e 97,6%, sendo o mínimo estabelecido de 75%, validando este aspecto. Conclusão: o objetivo de construir e validar uma tecnologia educativa voltada para a sala de amamentação, pioneira neste enfoque específico, foi alcançado.

Palavras-chave: Aletamento Materno; Materiais de Ensino; Estudos de Validação.

RESUMEN

Objetivo: construir y validar un folleto educativo para la sala de apoyo a la lactancia materna. Métodos: estudio metodológico realizado en tres etapas: encuesta bibliográfica, preparación de material educativo y validación por jueces expertos. La estructura del material, en cuanto a la secuencia de información, diseño, ilustraciones, colores y diagramación, fue realizada por un profesional.

Keywords: Breast Feeding; Teaching Materials; Validation Study.
INTRODUCTION

Breastfeeding (BF) is the wisest natural strategy of bonding, affection, protection and nutrition for the child and constitutes the most sensitive, economical and effective intervention to reduce child morbidity and mortality. It also allows the promotion of integral health of the mother and child binomial, generating an extremely positive impact for the whole society.1 Despite these benefits, the rate of exclusive breastfeeding (EBF) in children under six months worldwide corresponds to 39%. In Brazil, the prevalence of EBF in children under six months showed an upward trend until 2006 (4.7%), however, there was a relative stabilization between 2006 and 2013 (36.6%).

Maintaining BF has been a challenge. The current intensification of the number of women who entered the workforce and the increase in the number of female heads of household has made it difficult for women who work outside the home to maintain this practice. Thus, there was a need for companies to support their employees to enable the breastfeeding process after maternity leave.4

In view of this demand, some companies are investing in breastfeeding support rooms, intended for milking and storing breast milk during the workday. This type of investment, despite presenting difficulties for installation, has facilities and benefits that exceed expectations. There are already successful experiences with the support of health professionals who advise companies to create these rooms within workplaces. The breastfeeding support room, in addition to benefiting the mother and child, also favors companies with reduced employee absenteeism, given that breastfed children become less ill.5

In this current scenario of difficulties in breastfeeding, counseling by health professionals is of fundamental importance to help overcome pre-established limitations. These guidelines provided by professionals must occur at different times, from prenatal care to the puerperium.6 In the search for the improvement of BF rates, many strategies have been used in health services and in the most diverse environments. In this scenario, technologies stand out as an instrument capable of arousing the interest of users on the subject.7 Research reveals that the lack of knowledge and guidance on the management of breastfeeding can be a contributing factor to the interruption of the breastfeeding process.8 In this context, there is a need for educational materials to guide these women about the practice of BF, as well as guide them on the use of the room and the conservation and storage of the milk that will be offered to their newborn after their work activity. It should be noted that there was no evidence of any specific educational material aimed at the breastfeeding support room after searching the specialized databases and the library of the Ministry of Health (MH), which makes this study unique and highly relevant.

This study is based on the hypothesis that, through the construction and validation of a reliable instrument, it will provide guidance and communication support to women who attend the breastfeeding support room, empowering them to practice BF, even in the face of adverse scenario of returning to work or study. Therefore, this research aims to build and validate an educational booklet for the breastfeeding support room.

MATERIAL AND METHOD

This is a methodological research developed in three stages: a) bibliographic survey; b) construction of an educational booklet for a breastfeeding support room; c) design and content validation.9

In the first stage, research was carried out in the main databases and in the library of the MH about the theme BF. During the research in the databases, the descriptors “breastfeeding” and “Nursing care” were used, being the crossing between the two by using the Boolean operator and. The following inclusion criteria were adopted: research article, made available in full, published in the last five years, in Portuguese, English and Spanish and addressing the research theme.

The materials found were subjected to reflective reading to choose the subjects contained in the booklet, in order to extract as much relevant information as possible.

In the second stage, the texts were elaborated in a clear and succinct way, covering in their content from information regarding the importance of breastfeeding to practical guidelines on breastfeeding, such as milking and storing milk. Then, with the aid of a graphic design, the booklet and illustrative drawings were created using the Corel Draw Essentials Version X program. With the illustrations in hand, the formatting, configuration and diagramming of the pages.

In this step, guidelines related to language, illustration and layout were used, which should be considered for the preparation of printed educational materials in order to make them readable, understandable, effective and culturally relevant.10
In the third stage, the booklet was validated, from March to May 2018. Thus, this stage took place through the analysis of the specialist referees on the subject, in order to validate the material in terms of appearance and content. Nine referees were selected, as suggested by different authors,10-12 and the selection was made by sampling a net or snowball. Referees identified by this type of sampling and who obeyed certain criteria adapted from the consulted literature were invited to participate in the study.

For the collection of validation data, an instrument was used directed to specialist referees, adapted from the instrument proposed in the literature.13 The instrument was divided into two parts: the first contains the identification data of the referee and professional experience and the second contains the instructions for filling out the instrument and the evaluation items in the booklet, totaling 52 items distributed in seven evaluation aspects, two of content (scientific accuracy and content) and the remaining five of appearance (literary presentation; illustrations; sufficiently specific and comprehensive material; legibility and characteristics of printing and quality of information).

Regarding the content validity of the booklet, the content validity index (CVI) was used.14 This method applies a Likert-type scale with a score from one to four and is supported by the referees’ responses in relation to the degree of relevance of each item. Therefore, these can be classified as: (1) irrelevant; (2) not relevant; (3) really relevant; (4) or very relevant. In order to adapt to the data collection instrument of this study, the degree of relevance was compared to the degree of agreement between the referees: (1) strongly disagree; (2) partially agree; (3) agree; (4) and totally agree.

To fully evaluate the booklet, one of the calculation methods recommended by researchers in the area was used,15 in which the sum of all CVIs calculated separately is divided by the number of items in the instrument. As the booklet was validated by nine specialists, the literature recommends a cutoff point of the CVI of 0.78.16 Regarding the appearance validity, items that obtained a minimum agreement level of 75% in positive responses were considered validated.16

The study was approved by the Research Ethics Committees of the institutions where the research was carried out, ensuring compliance with the recommendations of the MH, Resolution Nr. 466/12 of, receiving a favorable opinion (Opinion Report Nr. 2.351,865).

RESULTS

The steps that comprised the study were: “construction of the booklet” and “validation of the booklet.”

The first phase of the construction of the booklet corresponded to the bibliographic survey in a search for scientific productions on the theme of the booklet in the databases, chosen by the authors, with the descriptors “Nursing care” and “breastfeeding.” After crossing the descriptors and applying the inclusion criteria, two articles were selected in the BDENF database; in MEDLINE 16 articles, and in LILACS eight articles, as described in Table 1.

Table 1 - Bibliographic survey in the databases for the construction of the booklet. Fortaleza, Ceará, 2018

<table>
<thead>
<tr>
<th>DECS/MESH</th>
<th>BDENF</th>
<th>LILACS</th>
<th>MEDLINE</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breastfeeding (aleitamento materno) and Nursing care (cuidados de Enfermagem)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production found</td>
<td>80</td>
<td>133</td>
<td>693</td>
<td>906</td>
</tr>
<tr>
<td>Not published in the last 5 years</td>
<td>54</td>
<td>81</td>
<td>559</td>
<td>694</td>
</tr>
<tr>
<td>Not available in full</td>
<td>-</td>
<td>-</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td>Not a research article</td>
<td>-</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Does not address the subject under study</td>
<td>23</td>
<td>39</td>
<td>72</td>
<td>134</td>
</tr>
<tr>
<td>Not published in Portuguese, English and Spanish</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>Chosen amount</td>
<td>2</td>
<td>8</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>Source: the authors.</td>
<td></td>
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</table>

In addition to the databases described, the Ministry of Health Virtual Library (Biblioteca Virtual do Ministério da Saúde, BVMS) was used, with a total of 14 manuals and booklets on the subject.

After such a survey, the booklet was divided into the following sections, each addressing a different theme: presentation; breastfeeding support room; breastfeeding: definition and benefits for the mother and the newborn; breastfeeding positions; correct attachment; possible problems with the breast; milking; milk supply.

In the second phase of the construction of the booklet, textual elaboration was carried out, followed by the design of the illustrations and ended with diagramming. We tried to combine content rich in information, but clear and objective, since very extensive materials become tiring and with language accessible to the target audience.

The booklet has an A5 size (148mm x210mm), to make the material easy to read and handle. The text was written with the font already available in the diagramming program, the size varied between 12 and 14 and the line spacing used was 1.15. A light background color was chosen for better visibility and so that reading was not tiring. On the cover of the booklet, the illustration of the breastfeeding support room was used, alluding to the focus of the booklet. When the layout was completed, the authors sent the printable version of the booklet and went to the specialist referees for validation of appearance and content. The final version of the booklet was entitled “I went back to work, how am I going to breastfeed?” The material has its final pre-validation version consisting of 24 pages.
The stage of content validation and appearance of the booklet consists of the evaluation of the material by specialist referees on the subject. Nine referees were selected, seeking to constitute a multiprofessional team, in order to bring a more complete assessment of the booklet. The referees were: four nurses; three pediatricians, only one male; a nutritionist; and a speech therapist. The referees’ age ranged from 30-55 years (M=37, SD=± 8.2 years). Of the nine selected referees, four (44.4%) had the PhD and five (55.6%) of specialist degree in the subject. The length of professional experience in the area ranged from seven to 32 years.

In the content validation process by the referees, the aspects related to “scientific accuracy” and “content” were validated based on the calculation of the CVI, which presented an average of 0.81. According to the cutoff point of the CVI recommended by the literature, the booklet is considered validated in terms of content.

Regarding the items evaluated in the “scientific accuracy” aspect (if the contents covered are in accordance with current knowledge; if the guidelines presented are necessary and were correctly addressed), four of the nine referees partially agreed with the items. Thus, their suggestions were analyzed by the authors and, according to the pertinent literature, the necessary corrections were made to the final version of the booklet.

For the validation of the booklet’s appearance, the level of agreement of the referees for the five evaluative aspects of the instrument was calculated. According to Figure 2, the level of agreement among specialists was high, ranging from 86.8 to 97.6%, higher than the established minimum of 75%, which also validates the booklet in terms of appearance.

From the high levels of agreement and a good overall CVI, it is perceived that the referees marked, in the vast majority of the 52 evaluative items of the instrument, options 3 (agree) and 4 (totally agree). Some specialists, however, even evaluating the items well, made suggestions for improving the booklet both in terms of appearance and content, such as: replacement or exclusion of technical terms; reformulation of illustration; simplification and rewriting of phrases, among others. These proposals were analyzed and accepted (Table 2). At the end of the appearance and content validation by the referees, the designer was contacted, and the suggestions were implemented.

**DISCUSSION**

This booklet entitled “I went back to work, how am I going to breastfeed?” was developed in order to facilitate, guide, welcome

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Figure 1 - Cover, layout and characters of the booklet. Fortaleza, Ceará, 2018
Source: the authors.
Table 2 - Changes made and general impressions on the booklet. Fortaleza, Ceará, 2018

<table>
<thead>
<tr>
<th>Referrees’ Suggestions</th>
<th>Modifications Made</th>
</tr>
</thead>
</table>
| Replacement of technical terms | - Replaced “coronary heart disease” by “heart disease”
  - replaced “milking” by “expressing your milk (milking)” |
| Reformulation of illustration | - Reformulated figure of the mother breastfeeding eye to eye with the newborn
  - reformulated figure of traditional and koala hold positions
  - reformulated figure of the correct attachment
  - redesigned cup figure
  - reformulated illustrations of cleaning the glass bottle |
| Phrase reformulation or simplification | - Rephrased phrases: “Massage the breasts and remove some milk with your hands” by “Massage the breasts, starting at the areola and around the breast, and remove some milk with the hands”
  - simplified phrases: “Sitting, in the armchair or chair, you put your baby on your lap, belly to belly” by “Sitting, you put your baby on your lap, belly to belly” |
| Replacement of expressions | - Replaced “prevents new pregnancy” by “helps prevent pregnancy”
  - replaced “must happen” to “must be offered” |
| Exclusion/Inclusion of informations | - Information withdrawn: Expose the breast to the sun at least once a day for 15 minutes
  - information included: Place recyclable ice (icex) in the thermal bag to preserve the ideal temperature
  - information included: In mastitis, in some cases it may be necessary to start treatment with antibiotics |

Source: the authors.

Figure 2 - Level of agreement between referees by evaluative aspects of appearance. Fortaleza, Ceará, 2018

Source: the authors.
and clarify the doubts of mothers who seek the breastfeeding support room, since most women experience difficulties in breastfeeding, due to the lack of guidance since prenatal care.27

Research that analyzed the actions of promotion, protection and support to breastfeeding carried out by health professionals under the eyes of the puerperal women showed that the majority of women did not receive any type of guidance on BF (56.78%), which can have difficulties in the breastfeeding process.28 Evidence indicates that receiving guidance on EBF contributes to the prevalence of exclusive breastfeeding, while inadequate guidelines and practices are associated with a lower prevalence of EBF.29

It is perceived the importance of health education for the promotion of BF, being necessary that the nurse is a mediator of these actions, using facilitating tools that favor the learning process, such as the use of educational technologies.19

During the validation of the study’s appearance and content, suggestions made by specialist referees were included. The overall CVI presented (0.81) is satisfactory, and the considerations made by the referees brought significant changes to the final content of the booklet. By participating in the validation, the referees agreed with the relevance and value of the material in contribution to professional practice.

Through the CVI, the proportion of agreement between the referees regarding the items judged is analyzed. Other studies that similarly sought to validate educational materials express the importance of calculation to confirm the quality and final applicability of the material.20 All had to undergo adjustments until a satisfactory and effective result was obtained, in which some information was reformulated or excluded, terms were replaced and the illustrations have also undergone readjustment, so that the best way to contribute to clinical practice.26

In the development of quality educational materials, it is essential to evaluate the knowledge acquired by the target audience and its impact on behavior change. A recent integrative review on the contributions of health technologies to the promotion of BF showed that educational technologies predominated in relation to care and management and presented more important contributions to the promotion of BF. The benefit of the printed format was highlighted, as it enhances the acquisition of information in the face of the lack of essential care among users.97

Although there are already several educational materials for the promotion of breastfeeding (serial album, educational game) showing its effectiveness in raising confidence in breastfeeding, as well as in the rates of BF and EBF,21,22 the booklet “I went back to work, how will I breastfeed? * explores a new environment, which comes together with the difficulty of maintaining breastfeeding in the face of returning to work/activities, the child’s withdrawal, milking and the preservation of milk to offer the child.

Returning to work is still considered one of the main risk factors for the interruption of breastfeeding and early weaning in children under six months of age.33 Women need to be aware of their work rights, such as: maternity leave, breastfeeding break and workload. However, even with these benefits, maintaining EBF is difficult. National projects have been developed aiming at other ideals to support the promotion of this practice, such as the implementation of daycare centers in the workplace and the implementation of breastfeeding support rooms in companies.3

To feel confident in breastfeeding, several factors are interconnected to the puerperal woman, among them family support, previous knowledge about breastfeeding, previous experiences, socioeconomic factors and the return to the job market. All these directly interfere with this woman’s self-efficacy during breastfeeding. It is the duty of the nurse to be attentive to all of them, fully analyzing the woman before offering any type of guidance. Breastfeeding is not a knowledge inherent to the mother, she needs support and the development of some techniques to be successful.36

There is a need to create a culture of support for breastfeeding, innovating the promotion of BF in the work environment. This requires support from managers and health professionals who are willing to support working women who breastfeed. Nurses are professionals trained to work in this field, in view of their training, being responsible for raising the awareness of managers to promote this practice, providing opportunities for discussing the implementation of breastfeeding support rooms.5

It is worth mentioning the importance of the multidisciplinarity of the referees chosen for validation. Different opinions of different professionals on the same topic propose a richer discussion of content. Validation also becomes a time when information and care are collected and standardized, with the participation and work of an entire team.9

The breastfeeding process involves all health professionals; however, it is seen that this topic is still a challenge for them, who, despite demonstrating theoretical knowledge, manifest gaps in the practical domain. Some professionals still consider breastfeeding to be a purely instinctive and biological act, with the need to train professionals on the subject being visible, aiming at forming teams committed to maternal and child health.24

Given the suggestions made by the referees, in order to clarify the importance of certain care and interventions, the target audience becomes even more empowered by obtaining this knowledge. Some of these come to demystify concepts that women could have before knowing the material. It is expected that women who attend the room and have access to the material can, in addition to carrying out the practice of breastfeeding effectively, also become health promoting agents through the dissemination of information.

In the search for an effective material with assured practical applicability, the changes made were intended to make the booklet current and accessible to different audiences. We can mention the
for clarifying doubts and reinforcing the dialogue between transmitted in the context of health, providing opportunities educational materials can contribute to optimize the guidelines would help to minimize the main doubts of this audience, since important to create, develop and produce quality material that will use the space, both for breastfeeding their newborn, as for a form of guidance for women who use it. The material has as the public in the breastfeeding support room to be used as study allowed the development of an educational technology achieved, this being the first material with this specific focus. The educational booklet for the breastfeeding support room was effectiveness and contribution in promoting BF.

It is suggested to carry out future research in order to evaluate its articles in the databases can be cited, which may leave gaps in the content covered in the booklet. However, valid material was produced to support women in the use of the breastfeeding support room after returning to their activities. Despite being a printed material, it is possible to envision its availability in digital form. It is suggested to carry out future research in order to evaluate its effectiveness and contribution in promoting BF.

CONCLUSIONS

The objective of the study to build and validate an educational booklet for the breastfeeding support room was achieved, this being the first material with this specific focus. The study allowed the development of an educational technology for the public in the breastfeeding support room to be used as a form of guidance for women who use it. The material has as main contribution the clarification of doubts of the women who will use the space, both for breastfeeding their newborn, as for the milking and storage of breast milk. It is reinforced that it was important to create, develop and produce quality material that would help to minimize the main doubts of this audience, since educational materials can contribute to optimize the guidelines transmitted in the context of health, providing opportunities for clarifying doubts and reinforcing the dialogue between professionals and customers.

REFERENCES


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