

EDUCATIONAL TECHNOLOGY FOR SELF-CARE OF POSTPARTUM WOMEN



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ABSTRACT

The study aimed to develop and evaluate the effectiveness of an educational digital booklet to support the self-care of women in the postpartum period hospitalized in a reference hospital in the state of Pará. The qualitative methodology was divided into three phases: integrative literature review, semi-structured interviews with postpartum women, and development of the educational booklet. Articles published between 2018 and 2023 in the Google Scholar, BVS, LILACS, MEDLINE, BDENF, and SCIELO databases were selected, and interviews were conducted with 19 postpartum women to identify their difficulties and needs. The interviews resulted in six thematic categories: difficulties in physiological elimination, pain, breastfeeding, lack of family support, hygiene and self-care, and guidance. The booklet developed, entitled "Women's Health: Promoting Self-Care", has 26 pages organized into 11 topics and was made available in e-book format via QR code. The conclusion indicated that the booklet was effective in providing guidance on self-care in the puerperium, contributing to the improvement of the quality of care and the well-being of puerperal women.

Keywords: Puerperium, Self-care, Educational technology.

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INTRODUCTION

Maternal mortality is a critical global public health issue, with the World Health Organization (WHO) reporting that approximately 830 women die daily due to preventable causes associated with pregnancy, childbirth and the postpartum period, with 99% of these deaths in developing countries. In Brazil, despite advances in reducing maternal mortality, high rates still persist, particularly in the northern region ^{15,16}.

The puerperium, the postpartum period, is characterized by profound physical, emotional and social changes for women, making adequate care and self-care essential to ensure the well-being of the mother and newborn. However, many women face significant difficulties during this period due to the lack of guidance and adequate support, aggravated by popular beliefs and taboos that can harm the mother's health ^{3,14}.

Self-care is defined as an individual's ability to identify and manage the factors necessary to maintain their health and well-being. In the context of the puerperium, self-care is crucial to prevent complications and promote a healthy recovery. Health education and the use of educational technologies can play a key role in promoting self-care among postpartum women, enabling them to make informed decisions and adopt healthy practices ².

In this study, an educational technology was developed in the form of a digital booklet for mobile devices, aiming to guide women in the puerperium about self-care. The booklet was designed to be accessible and easy to understand, providing relevant and practical information to assist postpartum women admitted to a reference hospital in the state of Pará.

The construction of the booklet was based on a qualitative methodological research, which included an integrative review of the literature and interviews with postpartum women to identify their main difficulties and needs for guidance in the postpartum period. The booklet was developed in collaboration with a graphic designer, resulting in a 26-page e-book, accessible via QR code ¹³.

The objective of this study is to develop and evaluate the effectiveness of an educational digital booklet in supporting the self-care of women in the puerperium, hospitalized in a reference hospital in the state of Pará, contributing to the improvement of the quality of care and the well-being of puerperal women.

METHODOLOGY

This study used a qualitative methodological approach, focused on the construction and evaluation of an educational technology of the digital booklet. The process of developing the booklet was divided into three main phases: systematization of the content, selection of illustrations, and development of the final draft¹².

In the first phase, an integrative literature review was carried out to identify relevant studies on self-care in the puerperium and educational technologies. Articles published between 2018 and 2023 were selected, using databases such as Google Scholar, BVS, LILACS, MEDLINE, BDENF and SCIELO. The descriptors used were "puerperium", "self-care" and "educational technology". Ten articles were selected as the main findings to support the content of the booklet.

At the same time, semi-structured interviews were conducted with 19 postpartum women hospitalized in a maternal and child referral hospital to identify their main difficulties and needs for guidance in the postpartum period. The interviews were transcribed and analyzed using Bardin's Thematic Content Analysis, resulting in six thematic categories: difficulties in physiological elimination, pain manifestation, breastfeeding difficulties, fear and lack of family support, difficulties in hygiene and self-care, and lack of guidance¹.

In the second phase, we worked in collaboration with a graphic designer to select and adapt illustrations for the booklet. The images were obtained from the public domain and adapted as needed, using the CorelDrawx7 and Photoshop programs. The language used in the booklet was simplified to ensure comprehension by the target audience.

In the third phase, the final draft of the booklet was developed, entitled "Women's Health: Promoting Self-Care", containing 26 pages organized into 11 topics, including hygiene, feeding, breastfeeding, rest, support network, sexuality and family planning. The booklet was made available in e-book format, accessible via QR code, allowing download and storage on mobile devices.

Ethical aspects were considered in all stages of the research, including approval by the Research Ethics Committee, opinion number: 3.892.344 and CAAE: 29167620.4.0000.5171, and obtaining the Informed Consent Form from the participants. The identity of the postpartum women was preserved, and all data was protected to ensure confidentiality.

RESULTS AND DISCUSSION

The creation of the digital booklet "Women's Health: Promoting Self-Care" was based on a robust literature review and the analysis of interviews with postpartum women, ensuring that the content addressed the real needs and difficulties of women in the postpartum period. The literature points out that the lack of guidance and support in the postpartum period is a significant barrier to self-care, and the booklet aims to fill this gap.

The results indicated that the digital booklet developed was effective in providing guidance on self-care in the puerperium. The analysis of the interviews revealed that the main difficulties faced by the puerperal women included problems with physiological eliminations, pain, breastfeeding, lack of family support, hygiene and self-care, and the absence of adequate guidance.

The category "difficulties in physiological eliminations" highlighted problems such as dysuria and constipation, associated with postpartum hormonal and physical changes. The "manifestation of pain" included low back pain, breast pain, and headaches, often related to cesarean section and inadequate breastfeeding management. "Difficulty in breastfeeding" was a recurring theme, with many postpartum women reporting problems latching on to the baby and nipple fissures.

Similarly, the lack of family support was another significant difficulty, with many women reporting fear and insecurity in caring for themselves and their babies. "Difficulty in hygiene and self-care" was frequently mentioned, with reports of a lack of guidance on how to care for scars and perform personal hygiene properly.

The interviews also revealed that many postpartum women were not familiar with the concept of self-care and did not feel safe in performing these practices without the guidance of a health professional. This reinforces the need for educational interventions that promote women's empowerment and autonomy in health care.

The results indicate, therefore, that the booklet has the potential to significantly improve the self-care of women in the puerperium, contributing to the reduction of complications and promoting a healthier and safer recovery.

Based on the results of the thematic categories using the speeches of the puerperal women and correlating with the RIL, we discussed the construction of the educational technology developed, a digital booklet. Themes found in the integrative review, but absent in the booklet, are important, but they were not included to prevent the booklet from being too extensive and exhaustive.

The first version of the booklet was developed between May and August 2023, with the help of a graphic designer. Entitled "Women's health: promoting self-care", it has 26 pages and was created with the Photoshop, CorelDrawx7 (images) and Indesign (publishing) programs. Conceived as an e-book, it is available on Google Drive through an exclusive email and can be accessed through a QRCode for mobile devices. The reference hospital adopts this practice due to the institutional policy of zero paper, respecting sustainability policies. Patients can download and save the booklet in PDF format.

Phase 1 of the construction of the booklet confirmed the themes to be addressed, resulting in the creation of the cover, back cover, table of contents and presentation, as shown in figure 1 shown below.

Figure 1 – Cover, back cover, presentation and summary of the booklet.



Source: Authorship (2024).

The figure shows, at the top, the cover of the booklet, and thinking about the socioepidemiological profile of this woman outlined in the survey, but in the questionnaire there was no question about self-declaration about skin color, however the latest data from

the Brazilian Institute of Geography and Statistics (IBGE) of 2010 confirms that 76.7% of Pará people self-declare themselves black or brown in the demographic census, That is why it was decided to choose a black woman on the cover using this regional representation.

Likewise, at the bottom, the figure contains the summary that was extracted from the data collection with the puerperal women and the thematic categories formed and based on the literature the themes described in the summary were confirmed: what is the puerperium; the condition of women in the postpartum period; forms of hygiene; characteristics of lochia eliminations; physiological eliminations; environment; feeding; breast self-care and breastfeeding; rest and support network; sexuality; family planning and ends with references in the literature.

In the analysis of figure 2, it is possible to see the topic "what is the puerperium" and "the condition of the woman in the postpartum" of the booklet, describing the concept of the postpartum and explaining the phases that the woman of the puerperium, and highlighting the greater alert for the immediate postpartum that is the 10th day, It is understood that during the puerperal period, profound changes occur in the lives of the mother, the baby, the partner and the family. In this context, it is important to highlight the importance of care for the mother, since she requires special attention to her physical, mental, and social well-being ¹¹.

On the other hand, the topic "forms of hygiene" is addressed. It is worth mentioning that in the topic some pain relief tips are suggested, such as the example of reddish vulvas or lacerations refers to category 2 "manifestation of pain", which is demonstrated in several paragraphs within the booklet.

Figure 2 – Topics "What is the puerperium" and "the condition of women in the postpartum period"; "Forms of hygiene" and "characteristics of physiological lochia" in the booklet.



Source: Authorship (2024).

The puerperium is a critical period in a woman's life, characterized by physical and emotional recovery after childbirth. This period covers from the birth of the baby to the complete recovery of the mother's body, usually between six to eight weeks. The nurse's work during this period is considered essential to ensure the mother's health and well-being, promoting self-care practices and providing guidance on the expected bodily and emotional changes. The condition of women in the postpartum period requires special attention, as it involves not only physical recovery, but also adaptation to new responsibilities and emotional challenges¹⁷⁻¹⁹.

Forms of hygiene in the puerperium are essential to prevent infections and promote the healthy recovery of women. Proper hygiene practices, such as proper genital cleaning and breast care, are vital to avoid complications. It is noteworthy that nurses play a crucial role in educating and guiding postpartum women about these practices, contributing to the

prevention of infections and other complications. Health education during nursing consultations can include practical demonstrations and the delivery of educational materials, such as booklets, to reinforce the importance of daily care ^{18,19,20}.

Physiological lochia, natural secretions that occur after childbirth, are indicative of the uterine recovery process. Monitoring the characteristics of lochia is an important practice to identify possible abnormalities. Normal lochia go through different phases, starting as bloody, then serosbloody, and finally serous, before ceasing altogether. Precise guidance on what to expect and when to seek medical help is essential to reassure postpartum women and prevent complications. Nursing care should include education about the normality and abnormality of lochia, promoting early detection of any sign of infection or hemorrhage ^{17,18,20}.

Next, figure 3 addresses the topics "Physiological eliminations" and "Feeding", described according to category 1, and the topics "breast self-care and breastfeeding" together with the topic "environment".

Figure 3 – Topics "Physiological eliminations" and "Feeding", "self-care with the breast and breastfeeding" and "environment" in the booklet.



Source: Authorship (2024).

The approach to physiological eliminations, feeding, self-care with the breast and breastfeeding, and the environment, is fundamental for the promotion of maternal and child health during the gestational and puerperal period. Adequate obstetric practices have a significant impact on maternal well-being, highlighting the need for integrated care that contemplates these areas. The correct management of physiological eliminations and a balanced diet are essential for the balance of the maternal body and the prevention of common complications in the postpartum period, such as constipation and malnutrition^{17,18,20}.

Breast self-care and breastfeeding are crucial for the health of both the mother and the newborn. The nurse's work in prenatal and postpartum care is vital to guide mothers about the importance of breastfeeding and the care necessary to prevent problems such as mastitis and breast fissures. Exclusive breastfeeding in the first months of life is essential

for the healthy development of the baby, and is an aspect strongly supported by public health policies in Brazil^{17,18,20}.

The environment also plays a relevant role in maternal and newborn health. The presence of a safe and pollutant-free environment contributes to the reduction of risks during pregnancy and the puerperium. Adequate environments, both in the hospital and at home, are crucial for postpartum recovery and the well-being of the postpartum woman. Adequate environmental support, combined with educational technologies, can facilitate mothers' self-care and adaptation to the new demands of motherhood¹⁸⁻²⁰.

In turn, figure 4, onwards, addresses the topics "sexuality", "family planning" and "rest and support network", given that care for puerperal women is deficient, and care in relation to sleep and rest, body hygiene, sexuality, puerperal infection and family planning are rarely reported by the dialogues present in the study⁶.

Regarding the topic "rest and support network", it is known that rest is one of the main needs of the puerperal woman due to the daily fatigue of motherhood. Studies state that sleep disorders affect approximately 80% of women in the postpartum period, and poor sleep quality, especially in the first 4 weeks of the puerperium, has consequences for the self-care of women and babies³.

Changes in sleep patterns cause complications in well-being, thus allowing stress, irritation, fatigue, mood swings and even postpartum depression with a prevalence rate of 38%, in addition to considering the fragility of women in this period⁸.

Figure 4 – Topics "sexuality", "family planning" and "rest and support network" in the booklet.



Source: Authorship (2024).

Thematic category 6, which discusses guidelines, did not receive a separate topic in the booklet, however, during all themes, the author made clear the guidelines on each subject, always seeking to use simple and objective language.

Through the educational materials, women receive clear, accessible and reliable information about maternal care, as well as guidance on how to promote their physical, emotional and social health during the postpartum period. These educational practices can take different forms, such as health education sessions, lectures, workshops, support groups, educational materials (such as booklets), and online resources^{4,10}.

The development of educational materials, such as booklets, plays a crucial role in the self-care process of lay women during the puerperal phase. In addition, these women may often not have easy access to reliable information about maternal care and may feel lost, insecure, or overwhelmed. In this context, booklets emerge as a valuable tool, capable of providing comprehensive and relevant information about the puerperium, in a clear and accessible language^{5,7,9}.

CONCLUSION

During the research, studies on technologies for women's health education in the puerperal period were identified, ranging from basic hygiene to disease prevention, family planning and mental health. The importance of providing clear and reliable information to promote women's self-care was highlighted. Educational materials, such as booklets, are essential, offering practical guidance on maternal care. These materials need continuous updating to meet the new needs of public health and to consider the cultural, socioeconomic and individual diversity of women during the puerperium.

The educational booklets empower women to make informed decisions, adopt healthy practices, and promote their physical, emotional, and social health, facilitating the transition to motherhood and contributing to a positive postpartum experience. This study will serve as a foundation for future research on women's health and the promotion of postpartum self-care, significantly benefiting women and their families.

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