EDUCATIONAL TECHNOLOGY FOR EMPOWERMENT IN MATERNAL BREASTFEEDING SELF-EFFICACY

TECNOLOGIA EDUCACIONAL PARA EMPODERAMENTO MATERNO NA AUTOEFICÁCIA EM AMAMENTAR

TECNOLOGÍA EDUCATIVA PARA EL EMPODERAMIENTO MATERNO EN LA AUTO-EFICACIA DE LA LACTANCIA

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ABSTRACT

Objective: to describe the experience of the preparation and use of educational technology as a way to promote breastfeeding self-efficacy in the postpartum period. **Method:** this is an experience report-type descriptive study based on the development of educational technology, in which the following stages were carried out: students' training; bibliographic research on the topic; and preparation and use of educational technology with puerperal women in the immediate postpartum period. **Results:** a favorable environment for the empowerment of puerperal women was provided through educational technology. We used the folder "Every woman is capable of breastfeeding!", which favored interactivity, knowledge, and debate about breastfeeding self-efficacy, creating a proper environment for dialoguing about factors that may negatively affect breastfeeding during the postpartum period. **Conclusion:** we observed that the educational technology favored the sharing of knowledge with the puerperal women and their caregivers, contributing significantly to maternal empowerment in breastfeeding. **Descriptors:** Breastfeeding; Self-Efficacy; Educational Technology; Health Education; Health Promotion; Postpartum Period.

RESUMO

Objetivo: descrever a experiência da elaboração e aplicação de uma tecnologia educativa como forma de promover a autoeficácia materna em amamentar no período pós-parto. **Método:** trata-se de um estudo descritivo, tipo relato de experiência, sobre o desenvolvimento da tecnologia educativa, no qual se desenvolveram as seguintes etapas: capacitação discente; pesquisa bibliográfica sobre a temática; e elaboração e aplicação da tecnologia educativa com puérperas em puerpério imediato. **Resultados:** propiciou-se, por meio da tecnologia educativa, um ambiente favorável para o emponderamento das puérperas. Utilizou-se o *folder* "Toda mulher é capaz de amamentar!", que favoreceu a interatividade, o conhecimento e o debate a respeito da autoeficácia materna para amamentar, criando um ambiente propício ao diálogo acerca de fatores que podem intervir negativamente para a instituição e manutenção do aleitamento materno no período pós-parto. **Conclusão:** verificou-se que a tecnologia educativa favoreceu o compartilhamento do conhecimento com as puérperas e seus acompanhantes, contribuindo significativamente para o empoderamento materno em amamentar. **Descritores:** Aleitamento Materno; Autoeficácia; Tecnologia Educacional; Educação em Saúde; Promoção da Saúde; Período Pós-Parto.

RESUMEN

Objetivo: describir la experiencia de desarrollar e implementar una tecnología educativa como una forma de promover la auto-eficacia materna en el período de lactancia después del parto. **Método:** este es un estudio descriptivo, tipo informe de experiencia, sobre el desarrollo de tecnología educativa, en el que se llevaron a cabo las siguientes etapas: capacitación de estudiantes; investigación bibliográfica sobre el tema; y elaboración y aplicación de tecnología educativa con mujeres puérperas durante el puerperio inmediato. **Resultados:** se proporcionó un entorno favorable para el empoderamiento de las mujeres puérperas a través de la tecnología educativa. Se usó el folleto "¡Toda mujer es capaz de amamentar!", lo que favoreció la interactividad, el conocimiento y el debate acerca de la auto-eficacia para la lactancia materna, creando un ambiente propicio para el diálogo sobre los factores que pueden intervenir negativamente en el mantenimiento de la lactancia materna en el posparto. **Conclusión:** se encontró que la tecnología educativa favoreció el intercambio de conocimientos con las puérperas y sus compañeros, contribuyendo de manera significativa al empoderamiento materno en la lactancia. **Descriptores:** Lactancia Materna; Auto-Eficacia; Tecnología Educativa; Educación para la Salud; Promoción de la Salud; Periodo Posparto.

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INTRODUCTION

It is known that breastfeeding is a widespread and recommended practice worldwide because of its ability to create a bond, protect, and provide benefits to the mother-child binomial. It is also worth mentioning that it is a practice mediated by innumerable factors, including cultural, economic, and personal factors, which can create vulnerabilities to different events, such as early weaning and low maternal self-esteem for breastfeeding. Therefore, strategies and mechanisms are necessary to produce supportive and protective environments for breastfeeding throughout the pregnancy-puerperal cycle, with educational technologies that are workable systems for maternal breastfeeding empowerment.

In this context, the World Health Organization, in conjunction with the United Nations Children's Fund, recommends that breast milk should be exclusively offered in the first six months of life, continuing until the age of two years or more.¹⁻² However, the II Survey of Breastfeeding Prevalence conducted in the Brazilian capitals and the Federal District revealed that Brazil had breastfeeding rates below the recommended level, and the provision of exclusive breastfeeding in children younger than six months of life was 41%.³

This way, breast milk is the best natural feeding strategy. In the short, medium, and long term, it can provide numerous advantages for the healthy growth and development of the children.⁴ The literature mentions the benefits of breast milk for the children, including a short-term reduction in mortality and morbidity, in addition to protection against infectious diseases in childhood and malocclusion. Also, in the long term, there will be better intellectual development and prevention of non-communicable chronic diseases such as obesity.⁵

From this perspective, the puerperal period is characterized by the moment after birth in which numerous transformations occur. Whether local or systemic, all changes brought about by the pregnancy process return to the pre-pregnancy state, requiring that health professionals meet the many needs related to puerperal women, including difficulties in breastfeeding.⁶

It is understood, therefore, that innumerable factors can be associated with the practice of effective breastfeeding, among them the concept of self-efficacy is emphasized as the personal belief in performing certain tasks successfully in order to obtain a desirable result.⁷ From this perspective, self-efficacy is related to women's perception of their potential to breastfeed their babies, as well as to having the necessary knowledge and skills to succeed in breastfeeding.

However, previous experiences (positive and negative), similar experiences of close individuals (vicarious experiences), social support, and psychological condition (i.e., self-esteem, depression, and anxiety) are contributing factors for self-efficacy.⁹ This way, self-efficacy may interfere with health behaviors, given that individuals need to believe that they are able to adhere to healthy behaviors, so that they can make the necessary efforts to achieve them.¹⁰ Therefore, mothers with higher breastfeeding self-efficacy are more likely to breastfeed for longer periods, i.e., increasing maternal confidence may also influence the rates of exclusive breastfeeding.¹¹

In this context, it should be added that nursing has been making use of technologies from the most diverse modalities, thus facilitating the health teaching-learning process. In particular, the following materials for breastfeeding education stand out: albums; booklets; educational videos; manuals; and workshops, as strategies that seek to increase breastfeeding rates and maternal self-esteem in breastfeeding.¹² It is understood, therefore, that nurses can carry out interventions and create technologies that may help in the promotion of breastfeeding during the postpartum period, making subjects reflect on their actions and their realities, clear their doubts, and feel more confident to adhere to healthy habits, as well as to breastfeeding.⁴

In health promotion and breastfeeding, health education plays a decisive role in the breastfeeding process, because it allows understanding concepts and, therefore, the development of skills. This way, the teaching-learning process for breastfeeding should occur before the postpartum period. It should be held on a regular basis during prenatal care, keeping the practice of breastfeeding widespread and, consequently, reducing the rates of newborns and maternal morbimortality.¹³

In order to promote maternal breastfeeding self-efficacy, we prepared an educational brochure designed to disseminate information that permeates breastfeeding, highlighting myths and truths related to breast milk, signs of correct positioning and latching-on, and satisfactory signs of breastfeeding for the mothers and the babies, plus the seven essential steps for optimal breastfeeding.

We used the educational brochure with the purpose of promoting an increase in maternal expectation and self-confidence in breastfeeding, making the postpartum a more favorable period for breastfeeding promotion, prevention, and maintenance.

OBJECTIVE

• To describe the experience of the preparation and use of educational brochure-type technology to promote maternal breastfeeding self-efficacy during the postpartum period.

METHOD

This is an experience report-type descriptive study based on the actions carried out by members of the Collective Health Research Group (GPeSC), Child and Adolescent Health, Federal University of Piauí, Picos Campus, State of Piauí, Brazil. The actions were linked to the “Promotion of Maternal Breastfeeding Self-Efficacy” extension project. The goal of this project is the development of health education technologies and strategies used to promote maternal breastfeeding empowerment and learning and maternal reflection environments to address topics that may influence the development of skills and ability to breastfeed.

Experience reports are tools of descriptive studies that reflect on actions that address situations experienced in the academic field of interest of the scientific community.¹⁴ The activities were carried out from March to December 2018, according to the following steps: students’ training and bibliographic research on the topic; visits to postpartum women to understand their main difficulties related to breastfeeding; and preparation of educational technology material to be used with the target population.

The scenario for using the educational technology was the rooming-in unit of a public reference hospital, located in the Municipality of Picos, State of Piauí, Brazil. The material was applied to the puerperal women and their caregivers after obtaining authorization from the administration of the hospital.

The patient were approached and invited to respond to the sociodemographic and obstetric characterization questionnaire and, consequently, to the 14-item Breastfeeding Self-Efficacy Scale, in order to help in the elaboration of the educational material. Interventions occurred weekly at different times, considering the limitations of each puerperal woman, as well as the routines of the professional activities in the unit. The present study was approved by the Research Ethics Committee of the Federal University of Pauí (Opinion: 2.429.527; CAAE: 80635717.0.0000.8057).

RESULTS

We prepared an educational brochure entitled “Every woman is capable of breastfeeding!” (*Toda mulher é capaz de amamentar!*)(Figure 1). It was designed for being used with puerperal women, and aimed at promoting empowerment for maternal breastfeeding self-efficacy. The brochures were printed in the landscape orientation on A4 sheets of paper and divided into six sections.

Figure 1. External and internal sides of the educational brochure “Every woman is capable of breastfeeding!”. Picos, State of Piauí, Brazil, 2018.

Aleitamento Materno
O leite materno é o alimento ideal para a criança, possibilitando inúmeros benefícios para seu crescimento e desenvolvimento, bem como para o bem-estar de toda a família e sociedade. Mas, para isso vamos esclarecer alguns mitos que cercam a prática da amamentação:

Mitos e Verdades sobre o Aleitamento Materno
Meu leite está fraco, e eu não consigo amamentar meu bebê. (MITO)

O leite materno é o único alimento capaz de suprir as necessidades do seu bebê, contendo assim, as proteínas, carboidratos e nutrientes essenciais para o crescimento e desenvolvimento saudáveis. (VERDADE)

Sempre troco de mama antes de terminar a mamada, porque acho correto e sacia melhor o bebê. (MITO)

Sempre esvaziar uma mama, para depois iniciar a outra. Isto, evita problemas mamários, como o ingurgitamento (leite pedrado). (VERDADE)

Só existe uma posição para amamentar. Logo, me canso, e desisto. (MITO)

Existem, inúmeras posições para amamentar, e a ideal é aquela no qual a mãe e o bebê se sintam confortáveis. Por exemplo: sentada, deitada, ou em pé. (VERDADE)

Mamãe, seu bebê deve ser amamentado quando quiser e pelo tempo que ele quiser.

Mamãe, você deve amamentar seu bebê somente com leite do peito até que ele complete seis meses de vida.

Mamãe, seu bebê precisa pegar no peito direitinho durante toda a mamada:

Sinais de posicionamento correto:

- ✓ Mãe bem apoiada e confortável;
- ✓ Corpo do bebê bem junto ao da mãe e de frente para a mãe;
- ✓ Bebê com cabeça e corpo alinhado;
- ✓ Bebê bem apoiado.

Sinais da “pega” correta:

- ✓ Boca do bebê bem aberta cobrindo quase toda a auréola (parte mais escura ao redor do mamilo);
- ✓ Lábio inferior do bebê vira do para fora;
- ✓ Queixo do bebê bem próximo ou encostado na mama;

Mamãe, em cada mamada as duas mamas devem ser oferecidas à criança.

Mamãe, você e seu bebê devem ficar satisfeitos com a amamentação.

Sinais que a amamentação está sendo satisfatória:

Em relação ao bebê:

- ✓ É uma criança calma, quase não chora;
- ✓ Está ganhando peso;
- ✓ Solta o peito espontaneamente após a mamada
- ✓ Dorme bem.

Em relação a mãe:

- ✓ Sente sensação de esvaziamento da mama após a mamada;
- ✓ Não sente dor ao amamentar.

Mamãe, você deve amamentar seu bebê mesmo se ele estiver chorando, pois, o choro é uma manifestação normal das crianças para se comunicar ou demonstrar algum desconforto.

Mamãe, você pode amamentar seu bebê em qualquer lugar, quem decide a hora e o lugar da amamentação é a fome do seu bebê.

Mamãe, amamentar exige tempo, dê tempo suficiente para que seu bebê esvazie totalmente a mama.

Mamãe, no intervalo das mamadas realize suas atividades do dia a dia normalmente.

Mamãe, o ideal é que você continue amamentando seu filho até pelo menos dois anos de idade.

The following stages were followed for its preparation: (1) technical training of the students, which included the presentation of the proposal to create a technology for health education and the conduction of bibliographic research on the topic; (2) visits to puerperal women at the rooming-in unit of the hospital to determine their self-confidence and how motivated they were to breastfeed; (3) selection of the type and preparation of the educational technology; and (4) application to the target population.

The educational brochure addressed concepts relating to breastfeeding, as well as the clarification of myths and truths that permeate breastfeeding. In addition, it addressed the signs of correct positioning and latching-on. It also included sentences that may positively influence and are correlated with mothers’ activities, so that these women can deal with breastfeeding naturally and safely.

It should be emphasized that the preparation of the material was carried out during the training of the students. Stage 1 included the technical training of students and the search for articles in national and international databases, which could subsidize the topics that would be part of the educational technology. A theoretical course was also held, in which relevant aspects about breastfeeding were discussed, considering the use of health technologies and the concept of self-efficacy. In addition, the main breastfeeding problems addressed were related to factors that could intervene causing high or low efficacy during the postpartum period.

Stage 2 included the visits to the rooming-in unit. Puerperal women who had already started

breastfeeding were approached individually and invited to discuss important aspects about their confidence in breastfeeding, which would help in preparing the technology based on the key points obtained in the discussions. Self-efficacy is related to beliefs, or even to the confidence in performing certain tasks successfully. In the case of breastfeeding, not only knowledge is able to provide all necessary subsidies for such action. Therefore, it is important to develop light-hard health technologies (such as the brochure of the present study) that, in addition to knowledge, encourage and evaluate the extent to which women feel prepared and empowered to breastfeed.

In stage 3, we established the thematic sections of the educational brochure as follows: (1) Importance of breastfeeding; (2) Myths and truths in breastfeeding; (3) Positioning and correct latching-on; (4) Satisfactory breastfeeding with respect to the baby; and (5) Seven essential steps for optimal breastfeeding.

In stage 4, the members of the project started approaching the puerperal women. Prior to the application of the educational brochure, those involved in the project were listed and they received explanations about the purpose of the educational technology, so that they could make the mothers feel embraced to establish a dialogue about their breastfeeding experiences, and know their beliefs about being able to breastfeed.

It was noticed that the puerperal women had previous concepts about the practice of breastfeeding acquired during the gestational period. However, it was also noted that these concepts had not always been positively

understood or rooted, given that many women felt tired, unprepared, unmotivated, or even unable to breastfeed due to cultural beliefs and myths that were already part in the daily life of some of them. This fact corroborated the need for interventions or support provided to women who are breastfeeding during the puerperal period, in order to make them more empowered about their ability to breastfeed, through education, acquisition of knowledge, and skill development.

DISCUSSION

We observed that the rooming-in unit of the hospital was an adequate environment for using technology that might increase women's expectations with respect to breastfeeding. In this sense, it is worth mentioning the variety of technologies listed in the literature used with the purpose of promoting breastfeeding, mainly light-hard technologies, such as "Cordel literature" (Popular Brazilian pamphlets containing folk novels, poems and songs), the construction and validation of educational manuals, albums (also used as mediators of maternal self-efficacy), videoconferencing, and CD-ROM technology.¹⁵

It should be emphasized that nurses should provide educational moments and strategies that culminate in a successful breastfeeding practice. They should also be the professionals capable of identifying and diagnosing situations that may be unfavorable for breastfeeding.¹⁶ In addition, it is important to note that innumerable educational strategies, independently of their modalities, such as leaflets, postcards, booklets, audio-visual resources, guidelines, and scales, among others, have been used by nurses to promote breastfeeding.¹⁷

Maternal confidence in breastfeeding is recognized as a predictor of breastfeeding, which can be modified through educational interventions for minimizing the negative influences of beliefs on breastfeeding self-efficacy.¹⁸ This way, knowing the maternal disposition to breastfeed can be a way to predict whether women will maintain breastfeeding for the recommended time, which would support the professionals in identifying difficulties and fragilities, giving time to establish and choose interventions for providing self-confidence support.¹⁹

The educational brochure prepared was aimed at empowering the puerperal women for breastfeeding self-efficacy through health education, i.e., fostering their autonomy and motivating them to feel empowered and prepared for breastfeeding. Emphasis is given to the encouragement provided by nurses, which can be initiated during prenatal care, through the formation of pregnant women groups, and in other moments, such as when staying in the rooming-in

unit and during childcare consultations, in addition to incentive campaigns for breastfeeding.²⁰

It was observed that the disruption of breastfeeding was still quite prevalent among Brazilian nursing mothers. This way, health professionals should understand that breastfeeding, as a unique and complex practice, should not be limited only to biological aspects. It should also be understood from other perspectives, including beliefs, values, and psychological and sociocultural factors related to self-efficacy.

Therefore, the educational brochure prepared in the present study can contribute to the acquisition of knowledge about self-efficacy. At the same time, it can promote reflective thinking in nursing women about their practice, providing them with the real understanding of their practice and the need to be their own mentors and participants in managing the complex breastfeeding process.

CONCLUSION

It should be emphasized that university extension programs become relevant in the academic world, because they allow real experiences in different fields of action in which the future professionals will perform. These programs incorporate students early in the most diverse healthcare settings, whether as a field of education or research.

It is noteworthy that participating in the "Promotion of Maternal Breastfeeding Self-Efficacy" project was an unparalleled experience for the students, given that it allowed them to follow-up women during the postpartum period, and to understand their entire bio-psycho-social process, ensuring the mother-child binomial ideal conditions for the maintenance of healthy and long-term breastfeeding. This goal can be achieved through the process of health education, based on the use of light-hard technology and, thus, the dissemination of necessary knowledge and the development of skills for breastfeeding.

There are emerging educational technologies aimed at promoting maternal breastfeeding self-efficacy, justifying the need for the creation, development, and validation of studies and technologies to be used in the most varied breastfeeding contexts.

The present study revealed that the brochure represented a viable alternative for health information and awareness. It can open the way for the promotion of self-efficacy through joint participation in the shared construction of knowledge, providing the puerperal women and their families with a material to be read, which can reinforce verbal guidelines, function as a guide in cases of doubts, and assist in decision making.

Therefore, the project has contributed positively to prompt the development of new health technologies and foster the creative, innovative, and investigative spirit of students. It has also been useful for providing unique experiences during the undergraduate program, bringing the students closer to the topic under discussion by means of different experiences.

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