

Promotion of breastfeeding on primary education: integrative review

Fernanda Demutti Pimpão Martins¹, Luciana Pedrosa Leal², Tatiane Gomes Guedes³, Marly Javorski⁴, Cleide Maria Pontes⁵

- ¹ Nurse, Master's Degree in Nursing. Doctoral student of the Postgraduate Program in Nursing, Federal University of Pernambuco. Recife, PE, Brazil. E-mail: fhernandapimpao@yahoo.com.br.
- ² Nursing, Doctorate degree in Nutrition. Associate Professor at Federal University of Pernambuco. Recife, PE, Brazil. E-mail: lucianapleal@hotmail.com.
- ³ Nursing, Doctorate degree in Nursing. Associate Professor at Federal University of Pernambuco. Recife, PE, Brazil. E-mail: tatigguedes@yahoo.com.br.
- ⁴ Nursing, Doctorate degree in Nursing. Full Professor at Federal University of Pernambuco. Recife, PE, Brazil. E-mail: marly.11@gmail.com.
- ⁵ Nursing, Doctorate degree in Nutrition. Full Professor at Federal University of Pernambuco. Recife, PE, Brazil. E-mail: <u>cmpontes18@gmail.com</u>.

Received: 04/19/2016. Accepted: 06/29/2016. Published: 12/22/2016.

Suggested citation:

Martins FDP, Leal LP, Guedes TG, Javorski M, Pontes CM. Promotion of breastfeeding on primary education: integrative review.

Rev. Eletr. Enf. [Internet]. 2016 [cited __/___];18:e1198. Available from: http://dx.doi.org/10.5216/ree.v18.40682.

ABSTRACT

This study aims to analyze the approaches on breastfeeding promotion in primary education. This is an integrative review carried out on BVS, PUBMED, SCOPUS, CINAHL, COCHRANE and SciELO, which found 1,598 publications with seven of them selected for the final sample. Categories identified - Approaches to knowledge, perceptions, beliefs and experiences of breastfeeding from children's perspective: the interviews revealed knowledge and beliefs unfavorable to breastfeeding; - Approach to the breastfeeding promotion content in primary education: the content is superficially addressed in textbooks and educators state they do not teach it in class. The approach to breastfeeding in primary education has been varied, although reduced, especially in relation to educational interventions. Nurses need to expand this approach, with active and playful methodologies, with a view to impacting the future of the next generations.

Descriptors: Breast Feeding; Health Promotion; Education, Primary and Secondary; Obstetric Nursing.

INTRODUCTION

Evidence reinforces the benefits of breastfeeding to reduce infant morbidity and mortality, also preventing infections and dental

malocclusion in children who are breastfed for longer periods. The effects of this practice can extend into adulthood, promoting increased intelligence and decreased risk of developing obesity and diabetes. In women's health, breastfeeding protects against breast and ovarian cancer, type 2 diabetes, and prolongs spacing between pregnancies. These benefits translate into reduced health services expenditures and reflect on family, society and the environment, contributing to a healthier, more equitable and sustainable world⁽¹⁻⁾

2)

Globally, about 80% of children receive breast milk in the first year of life, but approximately half of them are breastfed within the first hour after birth. In most countries, rates are below 50% for breastfeeding, indicating that efforts should be made to promote breastfeeding, especially at early initiation and exclusive maintenance⁽¹⁻²⁾.

In addition to programs and policies to encourage, protect and support breastfeeding, strategies to foster breastfeeding practices need to be expanded to include social mobilization, media, counseling, and support for breastfeeding in the family and community setting. The successful Breastfeeding should not be seen as a single responsibility of the woman, but a collective responsibility of society⁽²⁾.

The importance of this practice should be emphasized early on, well before prenatal care, in order to facilitate the construction of positive attitudes and behaviors about breastfeeding⁽³⁾, since the decision on the type of infant feeding generally occurs before pregnancy. In this context, the school is a favorable scenario for actions to promote health and, therefore, should expose all students the advantages of breastfeeding during the formative years. Educational activities aimed at students promote attitudes that are more favorable to breastfeeding⁽⁴⁾ and may contribute to the motivation to breastfeed when they become parents⁽⁵⁾. In addition, the educational institution has the potential to integrate diverse actors of society: women, children, adolescents, educators, family and health professionals in the same place⁽⁶⁾.

In Brazil, the Health in School Program, launched in 2007, reinforces the essential role of nurses in school education, in partnership between schools and basic health units. The intention is to create dialogic spaces that favor learning about health, not only being restricted to the physical environment of the institution, but also contemplating the reality of the community in order to encompass the family and bring it closer to the school and health professionals⁽⁷⁾.

however, primary school teachers feel insecure to carry out health promotion actions at school, they report difficulties in articulating partnership with health professionals in planning, implementing and evaluating activities, and highlight the short approach to health in textbooks⁽⁸⁾.

In secondary education, the inclusion of breastfeeding content in the curriculum is seen as important from the point of view of teachers and nurses⁽⁹⁾. For that matter, educational interventions carried out with secondary education adolescents demonstrate positive effects in increasing the knowledge of young people about this subject. However, the studies emphasize the need for further research to evaluate the future implications of these interventions in the practice of breastfeeding⁽¹⁰⁾.

From the period before pregnancy to postpartum, several systems interact to ensure the success of breastfeeding, including family, professional, political, economic, and legal support for women. In this context, the school has been cited as an environment conducive to the breastfeeding discussion⁽⁹⁾. In general, the educational activities are directed to the adolescent public, considering the possibility of pregnancy in this age group. These studies lack to mention this content during childhood, especially in the school environment.

Therefore, knowing the production of scientific knowledge about the promotion of breastfeeding in primary education will make it possible to identify possible gaps and to direct new research that contributes to the planning of intersectoral activities with articulation between educators and health professionals in favor of breastfeeding. Thus, this study aims to analyze the approaches on the promotion of breastfeeding in primary education.

METHOD

This is an integrative literature review, whose purpose is to summarize the knowledge of a given subject as well as to produce the maximum of new knowledge, which has not been approached or deepened in previous research. To this end, we followed the five steps proposed by Cooper⁽¹¹⁾.

For the first stage, the question of research was formulated: How is the promotion of breastfeeding in primary education addressed? In the second stage, data collection was chosen: Latin American and Caribbean Literature (LILACS), Nursing Database (BDENF), Spanish Bibliographic Index on Health Sciences (IBECS), U.S. National Library of Medicine (PubMed), Medical Literature Analysis and Retrieval System Online (MEDLINE), SCOPUS, Cumulative Index to Nursing and Allied Health Literature (CINAHL), COCHRANE and the virtual library of the Scientific Electronic Library Online (SciELO).

We performed the following crossings with the Health Sciences Descriptors (DeCS) and the respective terms of the Medical Subject Headings (MESH) with the Boolean operator "and": 1st) "Aleitamento materno"/"Breastfeeding", "Educação em saúde"/"Health education", "Criança"/"Child"; 2nd) "Aleitamento materno"/"Breastfeeding", "Ensino fundamental e médio"/"Primary school"; 3nd) "Aleitamento materno"/"Breastfeeding", "Estudantes"/"Students", 4th) "Aleitamento materno"/"Breastfeeding"/"Promoção da saúde"/"Health promotion"/"Criança"/"Child".

In Portuguese, we chose to use the descriptor 'Ensino fundamental e médio' because there was no descriptor that only addressed the term 'primary education'. MESH had the exact descriptor 'Primary school'. We carried out the search and bibliographic collection in the second half of October 2015.

In the third stage, data evaluation, we considered the inclusion criteria: addressing promoting breastfeeding in primary education; school and/or the school setting as participants; original article; Portuguese, English and Spanish; article with abstract and full text, available in full or obtained through commutation in the educational institution. It should be noted that the studies developed in secondary education were included in the review only when they also included primary education. In the attempt to expand the search, no temporal limit was established for the selection of articles. The exclusion criteria were dissertations, theses, guidelines, editorials, reflective articles or literature review/integrative/systematic and studies that addressed only the secondary education stage. We initially found 1,598 studies (Table 1).

After reading the title and abstract, we excluded 1,590 articles; of these, 1,540 were inadequate to the theme and 32 were repeated in the databases, being counted only once (Figure 1). An evaluator performed this step independently and any doubt was discussed with the other authors. Eight articles were pre-selected

and submitted to the methodological evaluation process using the standard form of the Critical Appraisal Skills Programme (CASP)⁽¹²⁾ adapted to contemplate all study designs present in the sample. This checklist has 10 questions, for each one of them can be assigned the answer/punctuation: yes (1 point); in part (0 point); not (0 point), with a score between zero and ten. A score equal to or greater than six (A rating) indicates that the study should be included in the review, while a score equal to or lower than five (rating B) means low methodological accuracy. In this stage, a study was excluded for obtaining scores inferior to five, and the final sample had seven studies.

Table 1: Publications about the promotion of breastfeeding in primary education. Recife, PE, Brazil, 2015.

Crossing / Database / Library	Breastfeeding / Health education / Child	Breastfeeding / Primary and second education	Breastfeeding / students	Breastfeeding / Health promotion / Child	Total
LILACS	08	01	02	16	27
IBECS	0	0	0	0	0
BDENF	0	0	0	1	1
MEDLINE	52	0	37	100	189
SCIELO	05	01	08	27	41
PUBMED	152	62	73	186	473
SCOPUS	321	52	51	266	690
CINAHL	07	0	07	34	48
COCHRANE	51	07	13	58	129
Total	596	123	191	688	1598

For the fourth stage, analysis and interpretation, we adapted the instrument made and validated by $Ursi^{(13)}$ to gather and synthesize the information regarding the promotion of breastfeeding in primary education: name of the research; authorship; publication journal; institution; year of publication; study objectives; methodological detailing; characteristics of the sample; level of evidence; outcomes; recommendations and conclusions. The three evaluators discussed the synthesis and interpretation of the studies during several meetings in order to clarify the information of each research and to answer to the objective of the review. The level of evidence was identified according to Stillwell et al., $^{(14)}$: 1 – Systematic reviews or meta-analysis, 2 – Randomized clinical trial, 3 – Clinical trial without randomization, 4 – Case control or cohort study, 5 – Systematic review of qualitative or descriptive studies, 6 – Qualitative or descriptive studies and 7 – Opinions or consensus of experts.

The three evaluators discussed the results and submitted them to content analysis⁽¹⁵⁾, in the thematic modality, which includes the steps of pre-analysis, exploration of the material or encoding and treatment or interpretation of the results. The first stage comprises fluctuating reading, the constitution of corpus and the formulation and reformulation of hypotheses. In the material encoding, the intention is to find meaningful words or expressions to guide the construction of the categories. Finally, the results are interpreted. The fifth stage, presentation of the results, we carried out from the description of the identified categories and discussion based on studies of the area.

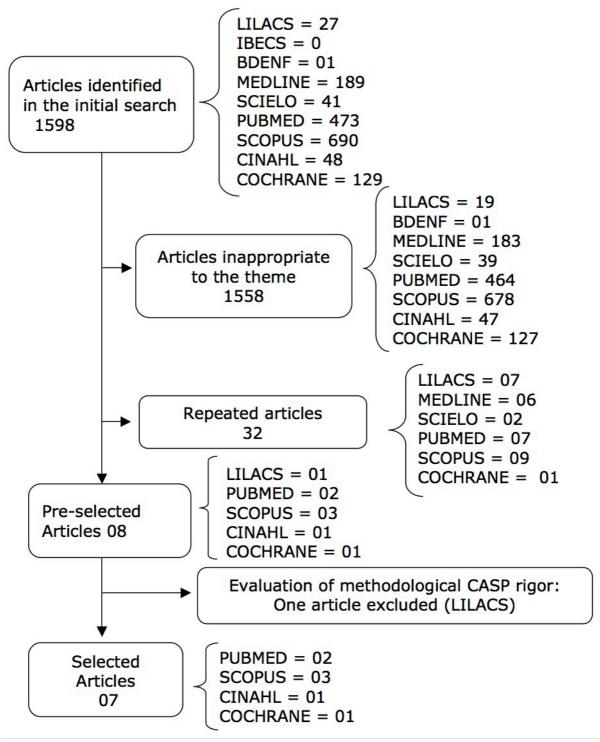


Figure 1: Flowchart of articles selection.

RESULTS

The publication period varied from 2008 to $2013^{(16-22)}$, five studies showed level of evidence $6^{(16,19-22)}$, and two showed level $2^{(17-18)}$. As to the language, four are publications in English⁽¹⁷⁻²⁰⁾ and three in Portuguese^(16,21-22). Brazil was the predominant research site^(16-18,22).

Regarding the methodological design, four opted for the quantitative approach^(16-18,20) and three used the qualitative approach^(19,21-22). The collection method varied from questionnaire containing questions about advantages/disadvantages and paternal participation in breastfeeding⁽¹⁶⁾, breastfeeding teaching⁽²⁰⁾;

educational intervention through lecture, using visual resources and slides with images⁽¹⁷⁾, with video, followed by discussion of concepts, staging of children's feeding storytelling, flying to color and write the history of breastfeeding, and application of the pre/post questionnaire test⁽¹⁸⁾. The participatory storytelling technique was mentioned in a study⁽¹⁹⁾, consisting of children's interpretation of a newborn feeding narrative created by them, with the aid of drawings and text. Another form of data collection was the consultation in guidelines⁽²¹⁾, curricular programs and textbooks of primary education⁽²²⁾ to verify the breastfeeding content.

From the reading and re-reading of the articles, two thematic categories were identified in relation to the promotion of breastfeeding in primary education (Figure 2).

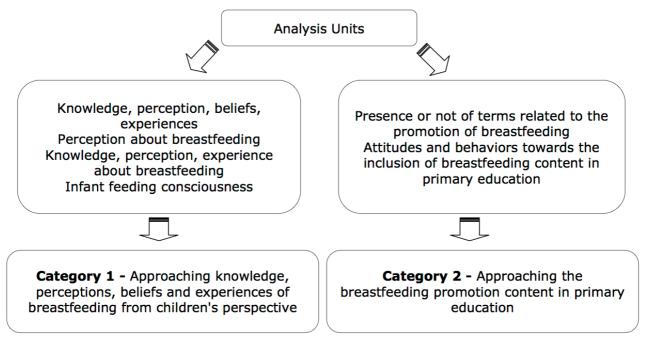


Figure 2: Flowchart of categorization process of the articles.

In the first category, Approaches to knowledge, perceptions, beliefs and experiences of breastfeeding from children's perspective, four articles⁽¹⁶⁻¹⁹⁾ were identified, with primary school students as a sample.

The second category, Approach to the promotion of breastfeeding in primary education, composed of three studies⁽²⁰⁻²²⁾, is characterized by interviews with teachers and nurses and consultations to guidelines, programs and textbooks. It should be emphasized that one of the studies⁽²⁰⁾ of this category had both primary and secondary education stages, being therefore included in the sample.

Table 1 describes the information synthesis (authorship, databases, objectives, method) and main results extracted from the articles according to the identified categories.

Table 1: Description of articles about 'Promotion of breastfeeding in primary education' in terms of authorship, database, objectives, method and main results according to the identified categories.

Authorship/Databases	Objectives	Design/sample/location	Results	
	Category 1: Approaching k	nowledge, perceptions, beliefs and experiences o	f breastfeeding from children's perspective.	
Bottaro S, Giugliani ERJ ⁽¹⁶⁾	To ovaluate knowledge percentions heliafe	Cross-sectional.	Little knowledge about the duration of breastfeeding and complementary feeding; beliefs	
	To evaluate knowledge, perceptions, beliefs	564 students (5 th grade).	(use of teas, water, pacifiers; weak milk, breast size X milk production); boys did not	
and experiences about breastfeeding in SCOPUS students of both sexes of Primary Education.		Rio Grande do Sul, Brazil.	associate breastfeeding as the first function of the breast and were contrary to the practice in public; the majority was breastfed and witnessed breastfeeding; girls reported breastfeeding dolls during childhood plays (41.7%) and boys participate little (16.6%).	
Fujimori M, Morais TC,		Cross-sectional.	The majority intended to have children and breastfeed them or support wives in the	
França EL, Toledo OR, Honório-França AC ⁽¹⁷⁾	To evaluate the perception of primary education students regarding breastfeeding	503 students (4 th to 8 th grade).	decision; more than 30% of children of both sexes reported embarrassment about breastfeeding in public; the majority received prior information on breastfeeding (28% in schools) and would like to learn more; intervention had a positive effect on the practicality of breastfeeding, use of pacifier and period for food supplementation; boys assimilated the breastfeeding advantages better than girls.	
SCOPUS	and the influence of educational lecture about their knowledge.	Mato Grosso, Brazil.		
Bottaro SM, Giugliani ERJ ⁽¹⁸⁾	To evaluate the effectiveness and residual effect of an educational intervention to	Randomized clinical trial	The majority was breastfed and witnessed breastfeeding; 41.7% of the girls played the role of breastfeeding their dolls and 16.6% of the boys participated in this type of activity; intervention was positive and had a greater impact on girls in the 9-11 age group and was more evident in public school students.	
COCHRANE	improve knowledge and attitudes about breastfeeding among fifth-graders of both sexes in Brazil.	564 students from public, private and rural schools (298 intervention group and 253 control group), 5th grade. Rio Grande do Sul, Brazil.		
Angell C, Alexander J, Hunt		Qualitative.	Less than half of the children referred to breastfeeding in the "Draw, write and tell"	
JA ⁽¹⁹⁾	To explore awareness of infant feeding in	56 children (from 5 to 11 years old).	dynamics as to the feeding the baby, and those that referred that, placed as a second option or an extra feeding alternative; most of them illustrated the milk formula and detailed practices with feeding bottles, in addition to include a variety of solid foods.	
PUBMED	primary education children.	England, United Kingdom.		
	Category	2: Approaching the breastfeeding promotion con	tent in primary education.	
Spear HJ ⁽²⁰⁾	To explore the attitudes and behaviors of nurse educators and primary and secondary education teachers related to the inclusion of breastfeeding content.	Descriptive, cross-sectional.	School teachers recognized the importance of including the content of the breastfeeding benefits in the school curriculum at the third and second education level; most of them stated they did not address this content in class; the justifications for not delivering this content are: it is not part of the school curriculum, lack of time and instrumentalization; about 15% said they teach the benefits of breastfeeding.	
SCOPUS		107 teachers (48 nurses and 59 primary and secondary education teachers). Virginia, U.S.		
Galvão DMPG, Silva IA ⁽²¹⁾	To know how breastfeeding is approached to the children of the 1st Cycle, and what they learn in school on this topic.	Descriptive, qualitative. 19 school guidelines from 1st to 4th year of primary education.	Content about the promotion of breastfeeding identified in only two guidelines of the 3rd year; presence of texts and images that allude to the culture of artificial feeding (pacifier, feeding bottle, child drinking milk with feeding bottle in the family).	
CINAHL	,	Coimbra, Portugal.		
Galvão DMPG, Silva IA ⁽²²⁾ PUBMED	To analyze the curricular programs defined for the first years in the Sciences subject of Primary Education and the contents of the textbooks adopted in this subject in Brazilian public education establishments regarding the presence or not of terms related to the breastfeeding practice.	Descriptive, qualitative. Curricular programs and textbooks of subjects from 2nd to 5th grades. São Paulo, Brazil.	Unidentified contents in school textbooks and guidelines: physiology of lactation, use of pacifier and feeding bottle as an inappropriate practice; identified images: pacifier and feeding bottle; contents for breastfeeding: mammal breastfeeding, beginner of breastfeeding right after birth, period for breastfeeding, the importance of the father, family support, advantages of breastfeeding for mother, infant, family and society, and contraindications to the use of water and artificial feeding.	

DISCUSSION

The studies showed different approaches about promotion of breastfeeding in primary education, ranging from interviews^(16-17,20) with children, teachers and nurses, educational interventions directed at students⁽¹⁷⁻¹⁸⁾, and consultation in curriculum programs and guidelines⁽²¹⁻²²⁾.

Interviews with the children revealed inadequate knowledge about breastfeeding since they frequently refer to the use of infant feeding with feeding bottle and have not favorable beliefs towards breastfeeding. London schoolchildren between the ages of 13 and 15 also demonstrated similar knowledge in stating that the feeding bottle brings health benefits for the infant despite having previously agreed on the advantages of breast milk. This confusing view may arise from advertising campaigns on the use of milk-fed bottle or dairy formula manufacturers that advocate industrialized milk for infant growth and development (5).

Early introduction of industrialized milk and/or other foods before the six months of life is a common practice among mothers because they believe their milk is weak and does not provide for their child's nutritional needs. Mothers justify giving water to infants because the breast milk is unable to quench the child's thirst⁽²³⁾. Women's unfamiliarity may be influencing children's learning as they repeat the beliefs and myths about breastfeeding they observe in their social lives. Insufficient knowledge and beliefs are factors that can lead to early weaning.

Clarification on myths and beliefs such as weak milk and low milk are fundamental to make women more confident about breastfeeding⁽²⁴⁾. This safety attitude may reflect on the breastfeeding process and consequently on the teaching and learning of children about the act of breastfeeding.

Students who receive informal education about breastfeeding or have contact with this practice through social or television viewing have more positive attitudes in relation to breastfeeding, especially girls, when compared to boys. Therefore, gender differences should be considered in planning educational activities including boys so that they know how they can support women in the breastfeeding process. The boy may be in the future father and have a significant role in choosing the type of infant feeding⁽⁴⁾.

Regarding the boys, the results revealed contradictory perceptions, from the pretension of supporting the woman in the decision to breastfeed until embarrassment with public breastfeeding. Schoolchildren aged 13 to 15 years of both sexes of primary education in London were also resistant to breastfeeding in the presence of other persons, characterizing this situation as unacceptable or embarrassing and uncomfortable for the mother⁽⁵⁾. In this context, we believe that the practice of breastfeeding, while physiological and undeniably beneficial to women, children, society and the environment, seems to be distancing itself from being a natural act to be perceived as embarrassing.

The boys' perception about breastfeeding deserves to be highlighted, since they may be involved with this practice as fathers or as men in society. Evidence indicates that the partner's support to the woman can exert significant influence for the beginning of the breastfeeding process⁽²⁵⁾, being a relevant factor for the woman's confidence in the decision and the continuity of breastfeeding. When the partners realize the importance of this practice, they stimulate the woman through words of encouragement, assistance in the

care of the baby and even with help to better position it during breastfeeding (26).

Strategies to promote breastfeeding with the parents in the pregnancy-puerperal cycle have a positive effect on the increase in breastfeeding rates and, therefore, a greater involvement of the partner in health education actions since prenatal care has been encouraged⁽²⁷⁾. The partners' participation towards the care along with the woman, mainly during breastfeeding, can begin to be worked from childhood. Playful moments can be an opportunity to discuss how infants should be fed during childhood plays. Perhaps these small attitudes might help children become adults more aware of their role in supporting women during breastfeeding and perceive this act more naturally.

For that matter, the approach to breastfeeding can be beneficial when started early on, for both sexes, both in the family and in the school because these are the privileged spaces for the infant's learning and development. And although the children receive information about breastfeeding⁽¹⁸⁾, the school environment contributes very little. This may demonstrate the need for teacher training to deal with this issue or even to bring the nurse closer to health education at school.

Educational interventions, while having a positive effect on children's learning, were carried out in different ways. While one used the lecture⁽¹⁷⁾ from the traditional methodology perspective, another took a more participatory approach, using video and dramatization⁽¹⁸⁾. The technique of storytelling drawings⁽¹⁹⁾ as a method of data collection also encouraged children's participation, although it was not intended to be an educational activity.

Encouraging the students' participation in health education activities involves the identification of attractive approaches according to the local context. The selection of methodologies should begin with the contact between the health team and the pedagogical team to define the most appropriate strategies to the target audience. There are a variety of methods that can be developed for health contents, such as lectures, workshops, theater, dance, music and games⁽²⁸⁾.

Teachers are the privileged agents in the educational process, because, theoretically, they have the necessary instrumentation so that learning happens in a meaningful way for the child. And although the school has little participation in the promotion of breastfeeding, students expressed a willingness to learn more about the subject⁽¹⁷⁾, which can be seen as positive and reinforces the need for greater school participation in this process.

A study⁽¹⁰⁾ conducted with adolescents between 12 and 13 years of age in Ireland has shown that educational interventions have a positive effect on moral attitudes, subjective norms, and girls' intention to breastfeed. However, the positive effects for the boys were only in relation to the construction of knowledge about breastfeeding.

The authors⁽¹⁰⁾ describe plausible explanations for this outcome regarding the intervention and the image of breastfeeding as an exclusively female act. In the case of boys, the intervention may not have met their learning needs about breastfeeding. In addition, the idea of the man supporting a partner on breastfeeding may seem a very distant reality for male children.

The fact that boys are less receptive to the breastfeeding teaching may be due to a culture that does not value men's participation in this practice. However, positive partner support is a significant predictor of women's self-efficacy in breastfeeding⁽²⁶⁾. Thus, extending the breastfeeding teaching beyond its benefits, and include other social network members, especially, the partner, is key to promoting breastfeeding.

The gender issue is also manifested in the differences of opinion of the children regarding the inclusion of breastfeeding in primary education, perceived in ambivalent ways. Some girls stated that the content should be taught as there is interest in knowing more about it. Others believed that school is not a place to address breastfeeding since pregnancy at this age should not happen. For the boys, some considered breastfeeding teaching to be more relevant to girls, while others felt that it was up to the school to decide what to teach⁽⁵⁾.

In fact, the school as an educational institution has the power to decide on the contents to be included in the program and the results of the studies of this review have evidenced numerous aspects regarding breastfeeding that need to be clarified to the children.

In the analyzed articles, the breastfeeding content was superficially approached in the guidelines of the 1st to the 4th year of the public education of Coimbra, in Portugal⁽²¹⁾. In the textbooks from the 2nd to the 4th year of students from São Paulo⁽²²⁾, although there were breastfeeding contents, there were also pacifier and feeding bottles images. These illustrations may reinforce a practice commonly seen by children and consequently reproduced in childhood plays. This result is worrying because the use of pacifier is a risk factor to stop exclusive breastfeeding⁽²⁹⁾ and the use of artificial nipples (pacifiers and feeding bottles) is associated with the absence of breastfeeding in the second half of the child's life⁽³⁰⁾.

The reduced thematic approach to health was also found in science textbooks for students from 2nd to 5th grades of primary education in Uruguaiana, Rio Grande do Sul. The focus on disease discussion prevails, distancing itself from the idea of "health" as a cross-sectional theme proposed by the National Curriculum Parameters⁽³¹⁾.

In the didactic material intended for primary education students in São Paulo, health promotion aspects related to food and nutrition content were identified, especially in the subjects of History, Geography, Sciences and Portuguese. However, some contents were inconsistent due to the presence of "learning situations", which indicate themes and suggestions of teaching activities. The content selection is the responsibility of the teacher and the student, which makes it impossible to evaluate the quality of the concepts. In addition, it may hamper the teacher's task as this activity sometimes requires knowledge away from their training area⁽³²⁾.

Regarding breastfeeding, the little or inadequate reference to the theme in textbooks can reinforce the difficulty and insecurity of the teacher in addressing the content in the school program, even though they recognize the relevance of teaching it in basic education⁽²⁰⁾.

The actions of health promotion in schools are, in most cases, individual initiatives, isolated, disconnected from the school curriculum and disarticulated from the institution's pedagogical project. The

lack of teachers' intentionality in educational health activities loses opportunities that could be rich in the construction of students' knowledge⁽⁸⁾.

Teachers highlight several health promotion needs that can be worked on with the support of the family's health team through various actions such as lectures, workshops, dynamics, health fairs and debates. However, the success of school health education depends, among other factors, on the integration of the health team with education professionals and on the intersectoriality effectiveness⁽²⁸⁾. The promotion of breastfeeding in school needs to be seen as a common goal of health and education to advance the teaching-learning process of children and to contribute to the training of more aware adults about breastfeeding as a natural and more adequate infant feeding practice.

FINAL REMARKS

The methodological approach to breastfeeding in primary education in this review was predominantly descriptive, directed mainly to children but with a small number of educational interventions. The articles indicated little use of active methodologies and inadequate knowledge of the students on the subject. Inserting breastfeeding in the educational activities planning is not frequent, in addition, textbooks have little reference to this content and sometimes bring incorrect information.

The studies indicated that gaps have to be filled in the promotion of breastfeeding in primary education, since the preparation of educators to teach this subject, adequacy of educational tools indicated by official educational bodies and greater articulation between health professionals and basic education.

The effectiveness of educational interventions in promoting breastfeeding demonstrates the importance of planning actions for students at school, as this should be a privileged environment for learning a healthier life, starting with the way children should be fed from the birth. In this teaching-learning process, it is essential to use active and playful methodologies that motivate and arouse children's interest.

Therefore, the contributions of this review refer to the nurse's role in broadening the debate of this content in the school environment considering its technical-scientific domain of the subject. Primary education is a phase in which children are sensitive to the acquisition of new learning and because of the transformative education potential they can become agents of change in their community and then, perhaps impact on the future of the next breastfeeding generation.

Finally, it should be noted that the small number of publications suggests greater investments in research in this area, especially in intervention studies, and reinforces the inclusion of the theme in the programmatic content of primary education to build a culture favorable to breastfeeding.

REFERENCES

1. Victora CG, Bahl R, Barros AJD, França GVA, Horton S, Krasevec J, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. Lancet [Internet]. 2016 [acesso em: 22 dez. 2016];387(10017):475–90. Disponível em: http://dx.doi.org/10.1016/S0140-6736(15)01024-7

- 2. Rollins NC, Bhandari N, Hajeebhoy N, Horton S, Lutter CK, Martines JC, et al. Why invest, and what it will take to improve breastfeeding practices? Lancet [Internet]. 2016 [acesso em: 22 dez. 2016];387(10017):491–504. Disponível em: http://dx.doi.org/10.1016/S0140-6736(15)01044-2
- 3. Ho Y, McGrath JM. Effectiveness of a breastfeeding intervention on knowledge and attitudes among high school students in Taiwan. J Obstet Gynecol Neonatal Nurs [Internet]. 2016 [acesso em: 22 dez. 2016];45(1):71–7. Disponível em: http://dx.doi.org/10.1016/j.jogn.2015.10.009
- 4. Ho Yen-Ju, Yu Chao-Chin. Attitudes of high school and vocational school students toward breastfeeding in Taiwan. J Perinat Educ [Internet]. 2014 [acesso em: 22 dez. 2016];(2):89–95. Disponível em: http://dx.doi.org/10.1891/1058-1243.23.2.89
- 5. Gale L, Davies N. Young people's attitudes towards breastfeeding: a survey of 13-15-yearold pupils in a south London school. Br J Midwifery [Internet]. 2013 [acesso em: 22 dez. 2016];21(3):195-201. Disponível em: http://dx.doi.org/10.12968/bjom.2013.21.3.195
- 6. Glaser DB, Roberts Kj, Grosskopf NA, Basch CH. An evaluation of the effectiveness of school-based breastfeeding education. J Hum Lact [Internet]. 2016 [acesso em: 22 dez. 2016];32(1):46–52. Disponível em: http://dx.doi.org/10.1177/0890334415595040
- 7. Gijsen LIPS, Kaiser DE. Enfermagem e educação em saúde em escolas no Brasil: revisão integrativa da literatura. Cienc Cuid Saude [Internet]. 2013 [acesso em: 22 dez. 2016];12(4):813-821. Disponível em: http://periodicos.uem.br/ojs/index.php/CiencCuidSaude/article/view/17618.
- 8. Costa GMC, Cavalcanti VM, Barbosa ML, Celino SDM, França ISX, Sousa FS. Promoção de saúde nas escolas na perspectiva de professores do ensino fundamental. Rev. Eletr. Enf. [Internet]. 2013 [acesso em: 22 dez. 2016];15(2):506-15. Disponível em: http://dx.doi.org/10.5216/ree.v15i2.15769.
- 9. Feldman-Winter, L. Evidence-based Interventions to Support Breastfeeding. Pediatr Clin N Am. [Internet]. 2013 [acesso em: 22 dez. 2016];60(1):169-87. Disponível em: http://dx.doi.org/10.1016/j.pcl.2012.09.007.
- 10. Giles M, Millar S, Armour C, McClenahan C, Mallett J, Stewart-Knox B. Promoting positive attitudes to breastfeeding: the development and evaluation of a theory-based intervention with school children involving a cluster randomised controlled trial. Matern Child Nutr [Internet]. 2015 [acesso em: 22 dez. 2016];11(4):656-72. Disponível em: http://dx.doi.org/10.1111/mcn.12079.
- 11. Cooper HM. Scientific Guidelines for Conducting Integrative Research Reviews. Rev Educ Res [Internet]. 1982 [acesso em: 22 dez. 2016];52(2):291. Disponível em: http://www.jstor.org/stable/1170314.
- 12. Critical Appraisal Skills Programme (CASP). © Milton Keynes Primary Care Trust. 2013. All rights reserved.
- 13. Ursi ES, Galvão CM. Perioperative Prevention of Skin Injury: An Integrative Literature Review. Rev Lat Am Enfermagem [Internet]. 2006 [acesso em: 22 dez. 2016];14(1):124-31. Disponível em: http://dx.doi.org/10.1590/S0104-11692006000100017.
- 14. Stillwell SB, Fineout-Overholt E, Melnyk BM, Williamson KM. Evidence-based practice, step by step: searching for the evidence. Am J Nurs [Internet]. 2010 [acesso em: 22 dez. 2016];110(5):41-7. Disponível em: http://dx.doi.org/10.1097/01.NAJ.0000372071.24134.7e.
- 15. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 14ª ed. São Paulo: Hucitec; 2014.
- 16. Bottaro SM, Giugliani ERJ. Estudo exploratório sobre aleitamento materno entre escolares de quinta série do Ensino Fundamental. Cad. Saúde Pública [Internet]. 2008 [acesso em: 22 dez. 2016];24(7):1599-608. Disponível em: http://dx.doi.org/10.1590/S0102-311X2008000700015
- 17. Fujimori M, Morais TC, França EL, de Toledo OR, Honório-França AC. The attitudes of primary school children to breastfeeding and the effect of health education lectures.
- J Pediatr (Rio J) [internet]. 2008 [acesso em: 22 dez. 2016];84(3):224-31. Disponível em: http://dx.doi.org/10.2223/JPED.1791
- 18. Bottaro MS, Giugliani ERJ. Effectiveness of an Intervention to Improve Breastfeeding Knowledge and Attitudes Among Fifth-grade Children in Brazil. J Hum Lact [Internet]. 2009 [acesso em: 22 dez. 2016];25(3):325-32. Disponível em: http://dx.doi.org/ 10.1177/0890334409337248
- 19. Angell C, Alexander J, Hunt JA. How are babies fed? A pilot study exploring primary school children's perceptions of infant feeding. Birth [Internet]. 2011 [acesso em: 22 dez. 2016];38(4):346-53. Disponível em: http://dx.doi.org/10.1111/j.1523-536X.2011.00484.x.
- 20. Spear HJ. School Nurses and Teachers: Attitudes Regarding Inclusion of Breastfeeding Education in School Curricula. J Sch Nurs [Internet]. 2010 [acesso em: 22 dez. 2016];26(2):137-46. Disponível em:

http://dx.doi.org/10.1177/1059840509350739.

- 21. Galvão DMPG, Silva IA. A amamentação nos manuais escolares de estudo do meio do 1o ciclo do ensino básico. Rev Enferm Ref [Internet]. 2011 [acesso em: 22 dez. 2016];serIII(4):7-16. Disponível em:
- http://www.scielo.mec.pt/scielo.php?script=sci arttext&pid=S0874-02832011000200001&lng=pt&nrm=iso&tlng=pt.
- 22. Galvão DMPG, Silva IA. Abordagem da amamentação nos primeiros anos do ensino fundamental. Rev Esc Enferm USP [Internet]. 2013 [acesso em: 22 dez. 2016];47(2):477–85. Disponível em: http://dx.doi.org/10.1590/S0080-62342013000200029.
- 23. Frota MA, Casimiro CF, Bastos PO, Sousa-Filho OA, Martins MC, Gondim APS. Mothers' knowledge concerning breastfeeding and complementation food: an exploratory study. Online braz j nurs [Internet]. 2013 [acesso em: 22 dez. 2016];12(1):120-34. Disponível em: http://dx.doi.org/10.5935/1676-4285.20133890.
- 24. Marques ES, Cotta RMM, Priore SE. Mitos e crenças sobre o aleitamento materno. Cien Saude Colet [Internet]. 2011 [acesso em: 22 dez. 2016];16(5):2461-8. Disponível em: http://ref.scielo.org/9d5my2.
- 25. Tang L, Binns CW, Luo C, Zhong Z, Lee AH. Determinants of breastfeeding at discharge in rural China. Asia Pac J Clin Nutr [Internet]. 2013 [acesso em: 22 dez. 2016];22(3):443-8. Disponível em: http://dx.doi.org/10.6133/apjcn.2013.22.3.20.
- 26. Mannion CA, Hobbs AJ, McDonald SW, Tough SC. Maternal perceptions of partner support during breastfeeding. Int Breastfeed J. [Internet]. 2013 [acesso em: 22 dez. 2016];8(1):4. Disponível em: http://dx.doi.org/10.1186/1746-4358-8-4.
- 27. Maycock B, Binns CW, Dhaliwal S, Tohotoa J, Hauck Y, Burns S, et al. Education and Support for Fathers Improves Breastfeeding Rates: A Randomized Controlled Trial. J Hum Lact [Internet]. 2013 [acesso em: 22 dez. 2016];29(4):484-90. Disponível em: https://doi.org/10.1177/0890334413484387.
- 28. Godoi SC, Pol P, Matia G. A inserção da Equipe de Saúde da Família no ambiente escolar público: perspectiva do professor. Cogitare Enferm [Internet]. 2012 [acesso em: 22 dez. 2016];17(2):232–8. Disponível em: http://dx.doi.org/10.5380/ce.v17i2.22735.
- 29. Buccini GS, Perez-Escamilla R, Venancio SI. Pacifier use and exclusive breastfeeding in Brazil. J Hum Lact [Internet]. 2016 [acesso em: 22 dez. 2016];32(3):NP52-NP60. Disponível em: https://doi.org/10.1177/0890334415609611.
- 30. Rigotti RR, Oliveira MIC, Boccolini CS, Association between the use of a baby's bottle and pacifier and the absence of breastfeeding in the second six months of life. Cien Saude Colet [Internet]. 2015 [acesso em: 22 dez.
- 2016];20(4):1235-44. Disponível em: http://dx.doi.org/10.1590/1413-81232015204.00782014.
- 31. Santos MET, Ocampo DM, Lopes MODS, Souza DOG, Folmer V. A saúde enquanto tema transversal em livros didáticos de ciências para os anos iniciais do ensino fundamental. Alexandria Revista de Educação em Ciência e Tecnologia [Internet]. 2015 [acesso em: 22 dez. 2016];8(1):53-73. Disponível em: http://dx.doi.org/10.5007/1982-5153.2015v8n1p53.
- 32. Fiore EG, Jobstraibizer GA, Silva CS, Cervato-Mancuso AM. Abordagem dos temas alimentação e nutrição no material didático do ensino fundamental: interface com segurança alimentar e nutricional e parâmetros curriculares nacionais. Saude soc. [Internet]. 2012 [acesso em: 22 dez. 2016];21(4):1063-74. Disponível em: http://dx.doi.org/10.1590/S0104-12902012000400023.