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## INTEGRATIVE REVIEW ARTICLE

### PROMOTION OF BREASTFEEDING DURING HOSPITAL ADMISSION OF NEWLY BORN: AN INTEGRATIVE REVIEW

#### PROMOÇÃO DA AMAMENTAÇÃO DURANTE A HOSPITALIZAÇÃO DE RECÉM NASCIDOS: REVISÃO INTEGRATIVA

#### PROMOCIÓN DE LA LACTANCIA MATERNA DURANTE LA HOSPITALIZACIÓN DEL RECIEN NACIDO: UNA REVISIÓN INTEGRADORA

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#### ABSTRACT

**Objective:** analyzing interventions to breastfeeding promotion in the neonatal hospitalization. **Method:** an integrative review from the question << *What interventions are appropriate for promotion of breastfeeding during hospitalization of newborns?* >>, from the articles published between 2000 and 2012 in English, Portuguese and Spanish, located in LILACS, PubMed/MEDLINE and ScieLO virtual library database. It carried out a descriptive analysis of the data obtained in the 14 articles included in the study, considering the theoretical-methodological and objectives and consistent results. **Results:** the analysis confirmed the negative influence of neonatal hospitalization for longer lasting breastfeeding, which highlighted the need for comprehensive care and personalized by the interprofessional health care team; favorable hospital environment and family support assured. **Conclusion:** in addition to encouraging the professional preparation, it is essential that hospitals adopt policies to protect breastfeeding during hospital stay. **Descriptors:** Breastfeeding; Hospitalization; Newborn; Health Promotion.

#### RESUMO

**Objetivo:** analisar intervenções para promoção do aleitamento materno na hospitalização neonatal. **Método:** revisão integrativa a partir da questão << *Quais intervenções são adequadas para promoção do AM durante a internação hospitalar de recém-nascidos?* >>, de artigos publicados entre 2000 e 2012, em inglês, português e espanhol, localizados nas bases de dados LILACS, Pubmed/MEDLINE e biblioteca virtual Scielo. Procedeu-se análise descritiva dos dados obtidos nos 14 artigos incluídos no estudo, considerando a coerência teórico-metodológica e dos objetivos e resultados. **Resultados:** a análise confirmou a influência negativa da hospitalização neonatal para o aleitamento materno mais duradouro, sendo evidenciada a necessidade de atenção integral e personalizada pela equipe interprofissional de saúde; ambiente hospitalar favorável e apoio familiar assegurado. **Conclusão:** além do incentivo ao preparo profissional, é imprescindível que os hospitais adotem políticas de proteção à amamentação na vigência da internação. **Descritores:** Aleitamento Materno; Hospitalização; Recém-Nascido; Promoção da Saúde.

#### RESUMEN

**Objetivo:** analizar las intervenciones para la promoción de la lactancia materna en la hospitalización neonatal. **Método:** es una revisión integradora de la cuestión << *¿Qué intervenciones son apropiadas para la promoción de la lactancia materna durante la hospitalización de los recién nacidos?* >> de artículos publicados entre 2000 y 2012 en Inglés, portugués y español, situado en la base de datos LILACS, PubMed/MEDLINE y ScieLO. Se realizó un análisis descriptivo de los datos obtenidos en los 14 artículos incluidos en el estudio, teniendo en cuenta los resultados teórico-metodológicos y de los objetivos y resultados. **Resultados:** el análisis confirmó la influencia negativa de la hospitalización neonatal para la lactancia materna, que puso de relieve la necesidad de una atención integral y personalizada por el equipo de atención médica interprofesional más duradero; el hospital favorable y el apoyo familiar asegurado. **Conclusión:** además de fomentar la preparación profesional, es esencial que los hospitales adopten políticas para proteger la lactancia materna durante la estancia hospitalaria. **Descritores:** La Lactancia Materna; Hospitalización; Recién Nacido; Promoción de la Salud.

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## INTRODUCTION

Maternal and child health care has been considered for decades a priority area of Public Health in Brazil. One of the landmarks of that conception occurred in 1983, when the Ministry of Health developed the Comprehensive Care for Women and Children Health (PAISMC), whose purpose was to reduce the morbidity and mortality of these groups.<sup>1</sup> Another milestone occurred in 1991, with the creation of the Program for Integral Attention to children (PAISC) and the Program for Integral Attention to Women's Health (PAISM), with the reformulation of purposes previously defined.<sup>2</sup> More recently, new programs and official actions focused on maternal and child health were proposed, being observed, among other consequences, a significant increase in prenatal coverage in Brazil.<sup>3</sup> In 2000, the percentage of pregnant women who had seven or more visits to pregnant women was 45%; in 2009 that number increased to 58,5%.<sup>4</sup>

In the context of primary health care to the population, the main goal of prenatal care is to assisting the woman from the beginning of pregnancy, a period of intense physical and emotional changes, aimed at the humanization of labor and birth, when inadequate or not performed results in high rates of maternal and infant morbidity and mortality.<sup>4</sup> Similarly, it has prioritized the quality of care provided to pregnant women and postpartum women in different places and times of care, involving a range of clinical and educational procedures, ranging from listening and meeting their demands and needs, up to actions to promote the health of them and their fetuses.<sup>5</sup>

Among these actions, the promotion of breastfeeding (BF) is revealed as essential for a favorable outcome of this practice, since the prenatal period, most pregnant women define future patterns of infant feeding.<sup>6</sup> Also, there is evidence that breastfeeding success is linked to early and appropriate practice this early, soon after birth.<sup>7</sup> Monitoring the postpartum and their unborn children after hospital discharge is another key step to support the maintenance of breastfeeding.<sup>8</sup>

In terms of duration of breastfeeding, it is advocated that the BF is unique up to six months of a child's life and complemented by two years or more following the dietary recommendations for healthy childhood;<sup>8</sup> however, the production of knowledge about breastfeeding has pointed out numerous problems associated with early weaning, such as family reasons, especially the lack of

support from partner; socioeconomic order, such as financial difficulties and necessity of maternal work outside the home or termination of maternity leave; and cultural, such as the belief that breast milk is weak and fear of falling breasts due to breastfeeding. The negative intervention of health services has also been cited, for example, high rates of caesarean section, a procedure which alters the endocrine responses of mother and infant in the immediate postpartum period,<sup>9,10</sup> also, the poor quality of information and lack of support from health professionals, even if unintentionally, have hindered the practice of BF.<sup>10</sup>

When considering hospitalization of infants for complications of perinatal factor associated with early weaning,<sup>11</sup> it is essential to adopt institutional arrangements for the promotion and maintenance of the breastfeeding practice in these situations. Thus, taking into account the importance of breastfeeding for the development of individuals as well as the need to have specific actions for the promotion and support of this practice in the hospital, it was proposed to carry out this study. It is expected, therefore, contribute to health, showing effective interventions related to the promotion of breastfeeding in neonatal hospitalization institutions.

## OBJECTIVE

- Analyzing interventions to promote breastfeeding in the neonatal hospitalization, from scientific papers published in the early twenty-first century.

## METHOD

This study consists of an integrative review defined as one in which the results and conclusions of scientific investigations previously conducted are summarized in order to formulating inferences about a specific topic.<sup>12</sup> Thus, integrative review provides professionals from diverse fields of performance in health quick access to relevant research findings that underlie the conduct or decision making, providing critical knowledge. Overall, for the construction of an integrative review is necessary to go through six distinct stages of development similar to those of conventional research phases, namely: Phase 1: Identification of the topic or question of the integrative review; Phase 2: Sampling or literature search; Phase 3: Categorization of studies; Phase 4: Evaluation of the studies included in the review; Phase 5: Interpretation of results; Phase 6: Synthesis of

knowledge evidenced in the analyzed articles or presentation of the integrative review.<sup>13</sup>

### **1<sup>st</sup> Phase: Identification of the theme or questioning of integrative review**

The establishment of the revision is the problem identification phase of the subject and to formulate hypotheses or guiding questions, which must be clear and explicit, and subsequently define the key words or markers, setting the research strategy of the studies. This phase is considered by some authors as the guideline for an elaborate integrative review.<sup>13</sup>

The present study has as its theme: promoting BF as object: appropriate interventions in neonatal hospitalization for breastfeeding promotion.

The guiding question for the study was established: *What interventions are appropriate for promotion of BF during hospitalization of newborns?*

It used a combination of the following descriptors: newborn, breastfeeding, weaning, promotion, support, protection, counseling and hospitalization.

### **2<sup>nd</sup> Phase: Sampling or searching in the literature**

After Phase 1 begins the exhaustive literature search, a key element for the proper conduct of the integrative review, which should contain references to the health sector, related to the theme proposed.<sup>13</sup>

The sample selection is the process of establishing criteria for inclusion and/or exclusion of studies. For effective search, it is necessary to know the correct way to access the databases with respect to search strategies, as well as the health terminology.<sup>12,13</sup>

To this end, a search was made on the production of scientific articles published in full from January 2000 to December 2012, in English, Portuguese and Spanish, the following sites data of the Virtual Health Library (VHL)/Regional Library medicine (BIREME): Literature Latin American and Caribbean Health Sciences (LILACS) and National Library of Medicine, United States (MEDLINE); Scientific Electronic Library Online (SciELO) and National Library of Medicine (PubMed).

In total, 93 studies were found through integration of keywords. Of these, 29 articles were selected for established inclusion criteria, whose abstracts were reviewed, giving the capability of each to answering the

research question established. After this analysis, 14 articles were included in the sample of this study, being read in full.

### **3<sup>rd</sup> Phase: Categorization of studies**

At this phase there is the instrument used to gather and synthesize relevant information of each article selected.<sup>13</sup> It took place, then, the application of a questionnaire specially designed for the removal of information which was subsequently categorized and analyzed. Therefore, this phase raises the characteristics of each article and their findings, from the definition of the extracted information, forming a database of easy access and handling.<sup>12</sup>

### **4<sup>th</sup> Phase: Assessment of studies included in the review**

This stage is the critical analysis of selected articles on the criteria of authenticity, methodological quality, importance of information and representation. The quality assessment of studies is relevant to the scientific integrity of the integrative review. The questions that should be considered to support the critical analysis of the research are: What is the research question?, Why this issue?; So that the issue is important?; What were the issues of research already conducted?; Is the study methodology appropriate?; The subjects selected for the study are correct?; What the research question answered?; The answer is correct?; What future research is needed?<sup>15</sup> These questions were applied to the sample of articles, with the following evaluation prepared presented descriptively in item results.

### **5<sup>th</sup> Phase: Interpretation of results**

At this stage, the interpretation of data (discussion of results) correlating them to other theories, in order to base future researches and interventions occurs. The articles should also be classified according to level of evidence, in order to determine the confidence in using their results as well as strengthen the conclusions of the subject studied, as proposed by Melnyk and Fineout-Overholt (Figure 1), therefore, the researcher can suggest and discuss new ideas of political or practical impact and make suggestions/recommendations for future studies.<sup>13</sup>

Level	
I	Evidence from systematic review or meta-analysis of all relevant randomized trials controlled or from clinical practice guidelines based on systematic reviews of randomized controlled clinical trials.
II	Evidence derived from at least one randomized controlled well delimited.
III	Evidence obtained from clinical trials well delineated without randomization.
IV	Evidence from cohort studies and case-control study well delineated.
V	Evidence from systematic review of descriptive and qualitative studies.
VI	Evidence derived from a single descriptive or qualitative study.
VII	Evidence from opinion of authorities and/or expert committees report.

Figure 1. Classification of levels of evidence<sup>13</sup>

### 6<sup>th</sup> Phase: Synthesis of knowledge evidenced in the analyzed articles or presentation of the integrative review

It is necessary that the integrative review presents details of studies that compose to provide conditions of investigation and adequacy of performed procedures, and declare possible methodological limitations in drafting the review. It is hoped that in this way, the results found through the development of an integrative review contribute to the deepening of the subject studied, providing the healthcare professional scientific knowledge necessary to perform their role subsidized by praxis.<sup>13</sup>

## RESULTS

The 14 articles included in this study were analyzed in full and to this end have been identified with the letters A to N. In SciELO and LILACS there were found in each, an article in Portuguese: A<sup>14</sup> and B<sup>15</sup>. Also in SciELO, an article in Spanish C<sup>16</sup> was found. Based on Pubmed, 10 articles were found in the English language - D<sup>17</sup>, E<sup>18</sup>, F<sup>19</sup>, G<sup>20</sup>, H<sup>21</sup>, I<sup>22</sup>, J<sup>23</sup>, K<sup>24</sup>, L<sup>25</sup> e M<sup>26</sup>. An article in Spanish was also found in the MEDLINE - N<sup>27</sup> (Figure 2).

For the year of publication, it was found that these studies were distributed through most of the decade in focus (2000-2012); it is not possible to relate the work to a pattern of change. In 2001, 2006, 2010 and 2012 there was published to answer the guiding question of the study. In 2000, 2003, 2005, 2008 and 2011, only one work per year was published: C<sup>16</sup>, L<sup>25</sup>, J<sup>23</sup>, B<sup>15</sup> and I<sup>22</sup>, respectively; in 2002, 2004 and 2009 there were two publications each year: E<sup>18</sup>, K<sup>24</sup>, A<sup>14</sup>, N<sup>27</sup>, G<sup>20</sup> and M<sup>26</sup>; 2007 three articles are available: D<sup>17</sup>, F<sup>19</sup>, and H<sup>21</sup> (Figure 2).

The formation of the first authors of articles was only two occupational categories: four nurses - A<sup>14</sup>, B<sup>15</sup>, D<sup>17</sup> and E<sup>18</sup> and 10 doctors: C<sup>16</sup>, F<sup>19</sup>, G<sup>20</sup>, H<sup>21</sup>, I<sup>22</sup>, J<sup>23</sup>, K<sup>24</sup>, L<sup>25</sup>, M<sup>26</sup> and N<sup>27</sup> (data not shown in table).

When evaluating studies in the sample, from their research questions (explicit or not) it can be seen that, overall, were relevant to the area of Health question the key points

with the intention of obtaining grants for the establishment appropriate interventions for the promotion of breastfeeding, complementing the scientific production so far. In this sense, their implementation has been properly justified, based on the importance of establishing measures to be implemented in neonatal hospital to promote breastfeeding, considering the key to promoting the health of newborns, as well as for reduce the rates of infant mortality.<sup>8</sup>

The proposed objectives were suitable to study matters set forth in each article can-gather them into four groups by similarities between them.

Group 1 consists of articles A<sup>14</sup>, B<sup>15</sup>J<sup>23</sup> and K<sup>24</sup> that aimed to describe the difficulties and maternal perceptions about breastfeeding the newborn care process. The article also analyzed the cause difficulties J<sup>23</sup> barriers of breastfeeding after hospital discharge (Figure 2).

Group 2, consisting of the items C<sup>16</sup>, F<sup>19</sup>, G<sup>20</sup>, H<sup>21</sup>, L<sup>25</sup> and N<sup>27</sup> brings together studies that analyzed projects, programs and initiatives aimed at AM (quality of health services). The C<sup>16</sup>, G<sup>20</sup> and H<sup>21</sup> articles aimed at the evaluation of the Baby Friendly Hospital Initiative (BFHI); Article F19 aims to verify the effectiveness of a project related to preventive medicine during the postpartum hospitalization of newborns and Articles L<sup>25</sup> and N<sup>27</sup> also sought to assess the impact of changes adopted in the hospital routine about the promotion of BF (Figure 2).

Articles D<sup>17</sup> and E<sup>18</sup> comprise the Group 3, whose association is established, as both sought, and propose strategies to support nursing mothers in special situations: mothers whose babies had craniofacial anomaly or heart problem and mothers of twins, respectively (Figure 2).

Group 4, which comprises Articles I<sup>22</sup> and M<sup>26</sup>, refers to studies aiming to compare the frequency of hospitalization of infants being breastfed at those using bottle and check the rate of breastfeeding of newborns admitted (Figure 2).

Article	Author (s) / Year of publishing	Objective (s)
A(14)	Serra SOA, Scochi CGS 2004	Describe maternal assistance and the difficulties in the process of breastfeeding of preterm assisted in neonatal intensive care unit.
B(15)	Azevedo M, Mendes ENW 2008	Identify the mothers' perception about the maintenance of lactation during hospitalization of premature son in the Hospital de Clínicas of Porto Alegre, RS.
C(16)	Ossandón MM, Ilabaca MJ, GajardoOV, Castillo BN, Namur RL 2000	Implement and evaluate the program of UNICEF "baby friendly Hospital Initiative and the mother" in a hospital in the southern part, the metropolitan region of Chile.
D(17)	Wallis M, Harper M 2007	Provide guidelines for the support of breastfeeding mothers whose babies have craniofacial anomaly or heart problem.
E(18)	Leonard LG 2002	Propose strategies for improving breastfeeding of infants gemelares during the time in which the mother and/or her children are in hospital.
F(19)	Mercier CE, Barry SE, Paul K, Delaney TV, Horbar JD, Wasserman RC, Berry P, Shaw JS 2007	Verify the effectiveness of a project to improve the quality of prevention services goals provided to healthy newborns during the post partum hospital stay in a State hospital.
G(20)	Shilpa L, Prakash A, Rao S 2009	Determine the impact of the policies of "baby friendly Hospital Initiative" on the success of lactation in a tertiary care hospital and identify areas for intervention of a lactation program successful.
H(21)	Duyan CA, Ozkan S, Yüksel D, Pasli F, Sahin F, Beyazova U 2007	Evaluate the effect of "baby friendly Hospital Initiative" in the practice of breastfeeding.
I(22)	Flaherman VJ; Newman TB 2011	Monitor feeding babies during hospitalization.
J(23)	Callen J, Pinelli J, Atkinson S, Saigal S 2005	Determine the barriers to the success of the establishment and maintenance of breastfeeding in newborns with very low weight, so much in hospital and after discharge, and changes in boundaries over time.
K(24)	Duclos C, Dabadie A; Branger B, Poulain P, Grall JY, Le Gall E 2002	Determine the rate of breastfeeding for infants hospitalized after birth, as well as the factors associated with the choice to breastfeed or not under these conditions.
L(25)	Labarere J, Bellin V, Fourny M, Gagnaire JC, Francois P, Pons JC 2003	Determine whether a permanent hospital education session could increase the rate of breastfeeding for more than 17 weeks.
M(26)	Mathur NB, Dhingra D 2009	Check the frequency of insufficient breast milk in mothers of newborns hospitalized and assess the duration of exclusive breastfeeding and growth (up to three months) in newborns whose mothers realized the insufficiency of breast milk.
N(27)	López AM; Tomás VL 2004	Analyze the impact occurred from changes in hospital routines through certain indicators of quality of care.

Figure 2 - Identification of articles, author, year of publication and goal of the studies.

Regarding the methodological aspects of the articles studied it can observe the variety of kinds of research and design approach adopted. Upon correlation of the methodologies, it was found that the A<sup>14</sup>, B<sup>15</sup> and J<sup>23</sup> studies are qualitative approach; C<sup>16</sup>, F<sup>19</sup>, G<sup>20</sup>, H<sup>21</sup>, K<sup>24</sup>, L<sup>25</sup>, M<sup>26</sup> and N<sup>27</sup> quantitative approach. With regard to the study designs, C<sup>16</sup>, G<sup>20</sup> and N<sup>27</sup> are investigations evaluating program being descriptive study C<sup>16</sup>, G<sup>20</sup> trial without randomization; D<sup>17</sup>, E<sup>18</sup> and I<sup>22</sup> consist of literature review; F<sup>19</sup>, H<sup>21</sup> and L<sup>25</sup> are intervention studies, with F<sup>19</sup>, H<sup>21</sup> and L<sup>25</sup> RCTs and cohort; the K<sup>24</sup> and M<sup>26</sup> proceeded with studies directed at mothers interviews, setting up K<sup>24</sup> and M<sup>26</sup> as descriptive cohort. (Data not shown in table). It is noteworthy that Article N<sup>27</sup> showed no accuracy in designing the study, and this fact limiter to classify it according to level of evidence.

Relate to the purpose of the studies with the results, it found that the articles of the first grouping, A<sup>14</sup>, B<sup>15</sup>, J<sup>23</sup> and K<sup>24</sup>, which aimed to describe the difficulties and maternal perceptions about breastfeeding the newborn care process, obtained similar results. These items, when considering the negative influence of hospitalization of infants for longer lasting BF, highlighted the importance of qualified and personalized comprehensive care by the multidisciplinary health care team, prioritizing actions to maintain this practice during hospitalization and incentive its continuity after discharge. These articles also point the perception of insufficient amount of milk as a complicating factor of breastfeeding in the hospital environment, as does Article M<sup>26</sup> (Figure 3). In general, these articles showed consistent with that which was assumed and the results obtained.

The second grouping, articles C<sup>16</sup>, F<sup>19</sup>, G<sup>20</sup>, H<sup>21</sup>, L<sup>25</sup> and N<sup>27</sup>, gathers the studies analyzing projects, programs and initiatives to BF (quality of health services), and C<sup>16</sup>, G<sup>20</sup> and H<sup>21</sup> aimed at the evaluation of the Initiative Friendly (BFHI) hospital; Article F<sup>19</sup> aims to verify the effectiveness of a project related to preventive medicine during hospitalization of newborns and L<sup>25</sup> and N<sup>27</sup> articles also sought to assess the impact of changes adopted in the hospital routine about encouraging BF. Such studies bring reviews of proposals developed with the aim of promoting and encouraging this practice, among other issues related to the health of newborns. Differences

were found after development of actions C<sup>16</sup>, F<sup>19</sup> and H<sup>21</sup>, such as decrease in hospitalization for phototherapy, decreased use of infant formula and significant increase in exclusive breastfeeding (EBF) until the sixth month (Article C<sup>16</sup>); AM increased from 49% to 81% (Article F<sup>19</sup>) and increased rate of AME until the sixth month after the BFHI accreditation. In contrast, the G<sup>20</sup> Article not found related to breastfeeding rates after BFHI difference, and there were no significant differences related to the following Article L<sup>25</sup> (Figure 3) intervention. Thus, it was observed that in the second group, which are expected to find studies confirmed with some exceptions.

Article	Results
A(14)	Difficulties described in the sub-themes: milk production, permanence in ICU, medical food pipelines for premature infants, premature frailty and logistical support to breastfeed.
B(15)	The categories that emerged were: beliefs and attitudes related to maintenance of lactation and milking in the Human milk bank.
C(16)	The independent variable was significantly correlated with a reduction in the use of formulas, decreased hospitalizations for phototherapy. There is a significant increase in exclusive breastfeeding in the sixth month of life, from 47% in 1994 to 65% in 1997.
D(17)	Success of breastfeeding has a positive effect on maternal attachment and trust, as well as having healing potential. Unexpected benefits of breast-feeding severely ill babies include enhanced immunity and food tolerance in infants undergoing chemotherapy.
E(18)	The benefits of breastfeeding for mothers of multiples go beyond those who are documented for single births. Can help mothers and connect emotionally to each of their RNs. realize that breast milk is the salvation for children because a large percentage of newborns multiple feature health problems related to their prematurity and low birth weight.
F(19)	Hospitals have shown improvement of 20% or more in at least a preventive service, when compared before and after the intervention. Highlights include the accession of breastfeeding practice that has increased from 49% to 81%.
G(20)	No significant differences were found when comparing groups of babies admitted to hospitals that have the title of baby friendly with those who do not own, in relation to the duration and success of lactation.
H(21)	The BF rate within the first 6 months was greater in babies born after IHAC. The IHAC increases the duration of breastfeeding 1.5 times.
I(22)	Breastfeeding improves child health, reducing the risk of gastroenteritis, infections of the lower respiratory tract, sudden infant death syndrome, among others. The interruption of breastfeeding is related, among other causes, with motherly concern of your milk is insufficient and the suspension breastfeeding NB when this needs to be rehospitalized to phototherapy.
J(23)	At the time of the NICU, the quantity of milk was the major barrier, followed by maternal emotional issues. Between 1 and 3 months after discharge, the greatest difficulty was the physical condition of the baby; between 6 months and 1 year supplementary feed was the main difficult.
K(24)	Of the 308 mothers, 50% have chosen to breastfeed their NB, which is close to the rate of mothers who choose to breastfeed during hospitalization in other hospitals (52 percent). Factors relating to guidance provided by professionals were related with the choice to breastfeed. Socio-economic condition, early contact with the NB and gestational age also influenced in the choice.
L(25)	There was no significant difference between the two groups in the rate of any breastfeeding (34.4% in the intervention group and 40.2% in the control group), and the rate of exclusive breastfeeding (14.0% in the intervention group and 14.4% in the control group).
M(26)	Insufficient breastmilk noticed was present in 68% of lactating women. The most common reasons to do this were irrational. All the children were breastfed exclusively until the high and within three months of follow-up. The growth of infants was satisfactory in the crisis group within 3 months of follow-up.
N(27)	None of the variables showed significant differences when compared between the 2 groups, with the exception of irritability, which was more frequent in the group children who entered without a mother.

Figure 3. Identification of articles and results of studies.

Articles of the third group, D<sup>17</sup> and E<sup>18</sup>, and propose strategies aimed at supporting nursing mothers in special situations: mothers whose babies had craniofacial anomaly or heart problem and mothers of twins, respectively.

These studies, plus the Article I<sup>22</sup>, pointed out the benefits of breastfeeding, how to increase the immunity of the maternal bond and reduction of risks to health in early childhood. By addressing special situations where the PM

should be encouraged, Articles D<sup>17</sup> and E<sup>18</sup> also bring as benefits, increased food tolerance in infants undergoing chemotherapy and weight gains of neonates multiple presenting problems related to health prematurity and low birthweight. It can be considered that these articles maintained between what they expected to find and study outcome.

It notes that the studies of the fourth group (I<sup>22</sup> and M<sup>26</sup>), which addressed the use of bottle and checking the breastfeeding rate of hospitalized newborns, showed similar results among populations, not confirming the assumptions made.

In comparing the findings of the studies evaluated, it can be seen unanimity among the primary items to consider for successful BF that professionals act directly with

mothers during hospitalization, raising their difficulties, so he could develop specific care plan that situation. Moreover, noted the need for supportive hospital environment and family support for mothers to feel encouraged to face the challenge of initiating and maintaining breastfeeding during the hospitalization of their children, with a view to maintaining the recommended time (Figure 4). It is noteworthy that the Articles A<sup>14</sup>, B<sup>15</sup>, I<sup>22</sup> and L<sup>25</sup> expose the need for future research on the topic suggests, respectively, in program evaluation studies on the effect of small amounts of formula milk during hospitalization newborn breastfeeding and on interventions to be developed in countries with low prevalence of BF (data not shown in figure).

Article	Conclusion(s) / Recommendations
A(14)	Proposed training and protocols aimed at maternal needs.
B(15)	Lactation is a complex process to be learned during hospitalization.
C(16)	The program avoids hospitalization for phototherapy, reduces costs of care NB and helps increase the prevalence of BF at six months of life.
D(17)	Structured support breastfeeding can help the team in the promotion of successful breastfeeding in the Pediatric setting.
E(18)	It is important to have professional training to guide mother and relatives of multiples, establishing a network of support, with the aim of outlining a plan of breastfeeding for that practice to be effective for multiple, mother and family.
F(19)	The improvement project has been effective in relation to preventive services provided the mother and newborn child during hospitalization.
G(20)	More efforts and awareness are necessary to fulfill the ideals of a baby friendly Hospital.
H(21)	The breastfeeding rate was increased by the implantation of the IHAC.
I(22)	There is currently insufficient evidence to support hospital policies that restrict the use of the formula during hospitalization in developed countries, and there is evidence that infant feeding should be used as an indicator of quality.
J(23)	Need to address the difficult barriers to breastfeeding during hospitalization of newborns in intensive care units.
K(24)	Pointed the populations at risk of not breastfeeding. Information about the properties of breastfeeding given to mothers for professionals can influence them in choosing to breastfeed your newborn sick.
L(25)	It is suggested that a single intervention at the hospital has no effect on the rate of educational BF. Guidance provided by the team must rely on common long-term support program.
M(26)	Suggests that the failure of lactation after the onset of breastfeeding can be tackled through intensive counseling, with an emphasis on primary attention.
N(27)	The fact that the children come together with her mother in a room does not affect any of the indicators of quality of care chosen, so, since the medical condition of the child allows, the mother's presence is essential during the internment.

Figure 4. Identification of articles and speeches conclusion/recommendations of the studies.

## DISCUSSION

Articles from Group 1 (A<sup>14</sup>, B<sup>15</sup>, J<sup>23</sup> and K<sup>24</sup>, all with level of evidence VI) and Article M<sup>26</sup> Group 4 (level IV evidence) focused on the full qualified and personalized attention by the multidisciplinary health care team to breastfeeding support during hospitalization, reinforcing the importance of qualified hearing the needs and maternal demands. Even assuming low level of evidence of articles in this group, it is considered that these articles, alongside the Article M<sup>26</sup>, can contribute to the promotion of the BF with regard to the proposition of interventions based on subjective dimension that permeates this practice.<sup>9</sup>

Part of the studies in Group 2, C<sup>16</sup> (level VI), F<sup>19</sup> (level II), H<sup>21</sup> (level IV) and N<sup>27</sup>, evaluated educational activities, projects and programs developed with the purpose of promoting and encouraging AM. Confirm these positive outcomes with the implementation of these measures, as less hospitalization for phototherapy, decreased use of infant formula and significantly increased AME by the sixth month and the prevalence of breastfeeding. In contrast, two other studies of this group (L<sup>25</sup>, level II and G<sup>20</sup>, level III) found no differences after the implementation of the measures, even when the measure was the implementation of the BFHI. It is observed, so that the higher quality studies did not show changes in relation to the adoption of the

proposals studied for the promotion of breastfeeding of children who were admitted to neonatal unit.

Currently, there is recognition of the importance of breastfeeding and has been evidenced in Brazil designing projects, campaigns and laws geared to your encouragement and support<sup>28</sup>, as some of the measures that have been studied. The BFHI was considered successful strategy for the protection, promotion and support of breastfeeding by the studies of this review. This strategy is promoted by the World Health Organization (WHO) and United Nations Fund for Children (UNICEF), with support from the Brazilian government. In order to receive the title of Baby Friendly Hospital, it is necessary to mobilize all staff of hospitals/maternity to comply with the ten steps to the success of this practice. These services become reference in nursing from the prenatal period to the postpartum period, developing actions in order to increase EBF rates and continued, as well as reducing infant morbidity and mortality.<sup>29</sup>

The encouragement and support to approach the mother to the newborn were mentioned by some of these studies, other measures to ensure the mother/child bond, with positive consequences for the success of AM. Historically, these actions have been proposed by international and national organizations, highlighting the strategy of Rooming that is a system in which the mother/son stays together from the moment of birth until discharge. In this context, the health professional should guide, to comfort, to offer support and assist the mother, where required, the proper way to care for your child. Thus, the Rooming favors the bond between the pair, making mother and child feel more protected, and facilitate breastfeeding, because breastfeeding postpartum women just more time and bigger.<sup>28</sup>

Articles from Group 3 (D<sup>17</sup> and E<sup>18</sup>, both level V evidence) turned to propose strategies to support nursing mothers in special situations and Article I<sup>22</sup> of the group 4 (also level V), studied the use of a bottle. All these articles have highlighted the importance of support for the success of BF, by qualified health staff, the postpartum and family whose baby had to be hospitalized.

The results of this review allow us to infer that admission to secondary or tertiary neonatal unit as nursery, intermediate unit or intensive care appears as involuntary condition of susceptibility to early weaning at own hospital, the maternal situation and often

by the unpreparedness of the health care team in dealing with the mother / child binomial and its limitations. The separation of children from their parents, often occurs abruptly and unexpectedly and causes the mother and also the father to feel guilty by the condition of the child, especially if the cause of hospitalization for preterm birth, which ends for triggering the feeling of loss "perfect child", confirming the difficulty in breastfeeding.<sup>30</sup>

Based on such considerations, there are official guidelines for the qualification of health professionals regarding the management of breastfeeding in special situations, to subsidize those who feel unprepared to do so. Children with neurological disorders, gastroesophageal reflux, and cleft palate, among others should be breastfed and for this, there are specific techniques that should be incorporated not only by the nursing staff, but by a multiprofessional team.<sup>8</sup>

Most articles converge to recognizing that health care should be the transforming agent of care for the child and his family, to his best qualifying. Small gestures and attitudes that pass confidence and comfort to the parents the child can make a difference. Examples of modifying attitudes are calling the mother and the child by name, firm and provide accurate information, listen to mom and dad, talking to the child, let the parents participate in care, encourage parental presence in the inpatient unit, stimulate breastfeeding, respect beliefs and celebrate with family improves.<sup>28</sup>

Therefore, it is the health professional to understand the process of breastfeeding and the sociocultural context of the binomial family and, from that understanding, develop an action plan for mother-baby and their family.<sup>8</sup>

Apart from the pro-activity of professionals in promoting breastfeeding, studies analyzed highlight the relevance of institutional organization in favor of this practice.

## FINAL CONSIDERATIONS

The aim of this study was achieving with regard to the identification of research that turned specifically to appropriate interventions for the promotion of breastfeeding of newborns admitted to neonatal units.

The reviewed articles were characterized by being from different countries; have as first authors, mainly doctors; By approaching the subject in a broad manner and with varying methods and indicate important steps



to successful breastfeeding in neonatologic units, which can be systematized into three strands: qualified and personalized comprehensive care by the multidisciplinary health care team; favorable hospital and family support assured. However, the scientific literature found proved incipient, including with regard to the publication of national surveys, verifying the need for further work on the subject, as well as designs of studies that allow high level of evidence.

The results of this review reinforce the property of adoption by hospitals of policies to protect breastfeeding during neonatal hospitalization, making it imperative that these institutions remain in your qualified professional staff for promotion, counseling and breastfeeding support.

## REFERENCES

1. Osis MJMD. PAISM: um marco na abordagem da saúde reprodutiva no Brasil. Cad saúde pública [Internet]. 1998 [cited 2012 Dec 04];14(Suppl.1):25-32. Available from: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0102-311X1998000500011&lng=en&nrm=iso&tlng=pt](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-311X1998000500011&lng=en&nrm=iso&tlng=pt)
2. Ministério da Saúde do Brasil. Cobertura dada pelo pré-natal aumenta mais que 20% [Internet]. 2009 [cited 2012 Dec 04]. Available from: [http://portal.saude.gov.br/portal/aplicacoes/reportagensEspeciais/default.cfm?pg=dspDetalhes&id\\_area=124&CO\\_NOTICIA=10004](http://portal.saude.gov.br/portal/aplicacoes/reportagensEspeciais/default.cfm?pg=dspDetalhes&id_area=124&CO_NOTICIA=10004)
3. Ministério da Saúde do Brasil. Assistência pré-natal - manual técnico [Internet]. 2000 [cited 2012 Dec 04]. Available from: [http://bvsmis.saude.gov.br/bvs/publicacoes/cd04\\_11.pdf](http://bvsmis.saude.gov.br/bvs/publicacoes/cd04_11.pdf)
4. Indicadores de cobertura. Cobertura de consultas de pré natal [Internet]. 2010 [cited 2012 Dec 04]. Available from: [www.datasus.gov.br](http://www.datasus.gov.br)
5. Merighi MAB, Gualda DMR. O cuidado à saúde materna no Brasil e o resgate do ensino de obstetras para assistência ao parto. Rev Latino-Am Enferm [Internet]. 2009 Mar/Apr [cited 2012 Dec 06];17(2):265-70. Available from: <http://www.scielo.br/pdf/rlae/v17n2/20.pdf>
6. Fonseca-Machado MO, Haas VJ, Stefanello J, Nakano AMS, Gomes-Sponhloz S. Aleitamento materno: conhecimento e prática. Rev Esc Enferm USP [Internet]. 2012 [cited 2012 Dec 06];46(4):809-15. Available from: [http://www.scielo.br/pdf/reeusp/v46n4/en\\_04.pdf](http://www.scielo.br/pdf/reeusp/v46n4/en_04.pdf)
7. Kluczynik CEN, Neto JBS. Diagnósticos de enfermagem em aleitamento materno segundo a classificação da North American Nursing Diagnosis Association. Rev Enferm UFPE [Internet]. 2010 May/June [cited 2012 Dec 13];4(esp):1158-64. Available from: [http://www.revista.ufpe.br/revistaenfermage/index.php/revista/article/view/1011/pdf\\_76](http://www.revista.ufpe.br/revistaenfermage/index.php/revista/article/view/1011/pdf_76)
8. Ministério da Saúde do Brasil. Saúde da criança e nutrição infantil. Caderno de Atenção Básica número 23 [Internet]. 2009 [cited 2012 Dec 13]. Brasília: Ministério da Saúde. Available from: [http://189.28.128.100/nutricao/docs/geral/cadernoatenaaobasica\\_23.pdf](http://189.28.128.100/nutricao/docs/geral/cadernoatenaaobasica_23.pdf)
9. Polido CG, Mello FG, Parada CMGL, Tonete VLP. Vivências maternas associadas ao aleitamento materno exclusivo mais duradouro: um estudo etnográfico. Acta Paul Enferm [Internet]. 2011 [cited 2012 Dec 03];24(5):624-30. Available from: <http://www.scielo.br/pdf/ape/v24n5/05v24n5.pdf>
10. Souza TG, Gaíva MAM, Modes PSSA. A humanização do nascimento: percepção dos profissionais de saúde que atuam na atenção ao parto. Rev Gaúcha Enferm [Internet]. 2011 Sept [cited 2012 Dec 15];32(3):479-86. Available from: <http://www.scielo.br/pdf/rgenf/v32n3/07.pdf>
11. Sales CM, Seixas SC. Causas de desmame precoce no Brasil. *Cogitare enferm* [Internet]. 2008 July/Sep [cited 2013 Jan 15];13(3):443-47. Available from: <http://ojs.c3sl.ufpr.br/ojs2/index.php/cogitare/article/view/13042/8822>
12. Ganong LH. Integrative reviews of nursing research. Research in nursing & health [Internet]. 1987 Feb [cited 2013 Jan 15];10:1-11. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/3644366>
13. Pompeo DA, Rossi LA, Galvão CM. Revisão integrativa: etapa inicial do processo de validação de diagnóstico de enfermagem. Acta Paul Enferm [Internet]. 2009 [cited 2013 Jan 15];22(4):434-8. Available from: <http://www.scielo.br/pdf/ape/v22n4/a14v22n4.pdf>
14. Bicalho-Mancini PG, Velásquez-Meléndez G. Aleitamento materno exclusivo na alta de recém-nascidos internados em berçário de alto risco e os fatores associados a essa prática. J Pediatr [Internet]. 2004 [cited 2013 Feb 13];80(3):241-47. Available from: <http://www.scielo.br/pdf/jped/v80n3/v80n3a14.pdf>

15. Azevedo M, Mendes ENW. Manutenção da lactação: um desafio para mães de prematuros hospitalizados. *Rev Gaúcha Enferm* [Internet]. 2008 [cited 2013 Feb 13];29(1):68-75. Available from: <http://seer.ufrgs.br/index.php/RevistaGauchaEnfermagem/article/view/5282/3002>
16. Ossandón MM, Ilabaca MJ, Gajardo OV, Castillo BN, Namur RL. Fomento de la lactancia materna: programa iniciativa hospital amigo del niño y la madre em el Hospital Barros Luco Trudeau. *Rev Chil Pediatr* [Internet]. 2000 Mar [cited 2013 Feb 13];71(2):98-106. Available from: [http://www.scielo.cl/scielo.php?script=sci\\_arttext&pid=S0370-4106200000200004&lng=es&nrm=iso&tlng=es](http://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0370-4106200000200004&lng=es&nrm=iso&tlng=es)
17. Wallis M, Harper M. Supporting breastfeeding mothers in hospital: part 2b. *Paediatr Nurs* [Internet]. 2007 Nov [cited 2013 Feb 13];19(9):20-3. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/18047168>
18. Leonard LG. Breastfeeding higher order multiples: enhancing support during the postpartum hospitalization period. *J Hum Lact* [Internet]. 2002 Nov [cited 2013 Feb 13];18(4):386-92. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/12449057>
19. Mercier CE, Barry SE, Paul K, Delaney TV, Horbar JD, Wasserman RC, Berry P, Shaw JS. Improving newborn preventive services at the birth hospitalization: a collaborative, hospital-based quality-improvement project. *Pediatrics* [Internet]. 2007 Sept [cited 2013 Feb 15];120(3): 481-8. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/17766519>
20. Shilpa L, Prakash A, Rao S. BFHI in a tertiary care hospital: does being Baby friendly affect lactation success? *Indian J Pediatr* [Internet]. 2009 June [cited 2013 Feb 15];76(6):655-7. Available from: <http://medind.nic.in/icb/t09/i6/icbt09i6p655.pdf>
21. Duyan CA, Ozkan S, Yüksel D, Pasli F, Sahin F, Beyazova U. The effect of the baby-friendly hospital initiative on long-term breast feeding. *Int J Clin Pract* [Internet]. 2007 Aug [cited 2013 Feb 15];61(8): 1251-5. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/17428268>
22. Flaherman VJ; Newman TB. Regulatory monitoring of feeding during the birth hospitalization. *Pediatrics* [Internet]. 2011 May [cited 2013 Feb 17];127(6):1177-9. Available from:
23. Callen J, Pinelli J, Atkinson S, Saigal S. Barriers to breastfeeding in very-low-birth weight infants: summary and implications. *Adv Neonatal Care* [Internet]. 2005 Apr [cited 2013 Feb 17];5(2):93-103. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/15806450>
24. Duclos C, Dabadie A; Branger B, Poulain P, Grall JY, Le Gall E. Factors associated with the choice of breast or bottle-feeding for hospitalized newborns. *Arch pediatr* [Internet]. 2002 Oct [cited 2013 Feb 17];9(10): 1031-8. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/12462833>
25. Labarere J, Bellin V, Fourny M, Gagnaire JC, Francois P, Pons JC. Assessment of a structured in-hospital educational intervention addressing breastfeeding: a prospective randomised open trial. *BJOG* [Internet]. 2003 Sep [cited 2013 Feb 19];110(9):847-52. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/14511968>
26. Mathur NB, Dhingra D. Perceived breast milk insufficiency in mothers of neonates hospitalized in neonatal intensive care unit. *Indian J Pediatr* [Internet]. 2009 Oct [cited 2013 Feb 19];76(10): 1003-6. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/19907930>
27. López AM, Tomás VL. El ingreso de los lactantes acompañados de sus padres. Cambios en las rutinas de hospitalización pediátrica y su influencia en la estancia media y otros indicadores de calidad asistencial. *Gest hosp* [Internet]. 2004 [cited 2013 Feb 19];15(1):27-30. Available from: <http://dialnet.unirioja.es/servlet/articulo?codigo=810050>
28. Venancio SI, Escuder MML, Saldiva SRDM, Giugliani ERJ. *J Pediatr* [Internet]. 2010 [cited 2013 Mar 17]. Available from: [http://www.scielo.br/pdf/jped/v86n4/en\\_a12v86n4.pdf](http://www.scielo.br/pdf/jped/v86n4/en_a12v86n4.pdf)
29. Ministério da Saúde do Brasil. Iniciativa Hospital Amigo da Criança [Internet]. 2009 [cited 2013 Mar 17]. Available from: [http://bvsm.sau.gov.br/bvs/publicacoes/iniciativa\\_hospital\\_amigo\\_crianca\\_modulo2.pdf](http://bvsm.sau.gov.br/bvs/publicacoes/iniciativa_hospital_amigo_crianca_modulo2.pdf)
30. Cypel S. A humanização no atendimento ao recém-nascido: a importância das relações interpessoais e a organização neurobiológica. *Einstein* [Internet]. 2007 [cited 2013 Mar 17];5(1):69-73. Available from:



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