Journal of Nursing
Revista de Enfermagem
UFPE On Line
JNUOL
ISSN: 1981-8963

INTEGRATIVE REVIEW ARTICLE

KANGAROO METHOD AS A BASIS FOR HUMANIZED CARE FOR THE NEONATE AND FAMILY: INTEGRATIVE REVIEW

MÉTODO CANGURU COMO SUBSÍDIO PARA A ASSISTÊNCIA HUMANIZADA AO NEONATO E FAMÍLIA: REVISÃO INTEGRATIVA

MÉTODO CANGURO COMO BASE PARA LA ASISTENCIA HUMANIZADA AL NEONATO Y FAMILIA: REVISIÓN INTEGRADORA

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ABSTRACT

Objective: to assess the scientific publications in the Brazilian scenario related to professionals' experiences with the kangaroo method. ***Method:*** integrative review using LILACS, BDENF, and SciELO Electronic Library databases from 2003 to 2012. The selection of articles was performed after a filtering process by inclusion and exclusion criteria. The steps of Ganong's method were followed for the analysis and the classification proposed by Stetler et al. was used to classify the evidence level. ***Results:*** eight articles were selected, with predominance of the level 4 evidence. The goals were based on the concern to understand the implementation process of the kangaroo method and its structural and operational dimension. Weaknesses and potentialities related to the implementation of the method were observed. ***Conclusion:*** the perception of professionals was widely cited, but not related to the other actors engaged in the method or to working conditions. ***Descriptors*:** Kangaroo-Mother Care Method; Maternal-Child Nursing; Literature Review as topic.

RESUMO

***Objetivo*:** analisar as publicações científicas, no cenário brasileiro, relacionadas às vivências dos profissionais no método canguru. ***Método*:** revisão integrativa utilizando as bases de dados LILACS, BDENF e Biblioteca Eletrônica SciELO, de 2003 a 2012. A seleção dos artigos foi realizada após um processo de filtragem por critérios de inclusão e exclusão. Para análise foram percorridas as etapas do método de Ganong e para classificar o nível de evidência utilizou-se a classificação de Stetler *et al*. ***Resultados*:** foram selecionados oito artigos, com predominância do nível de evidência 4. Os objetivos tiveram em comum a inquietação por compreender o processo de implantação do método canguru e sua dimensão estrutural e operacional. Foram evidenciadas fragilidades e potencialidades relacionadas à implementação do método. ***Conclusão*:** as percepções dos profissionais foram amplamente citadas, mas não relacionadas com os demais atores envolvidos no método nem com as condições de trabalho. ***Descritores*:** Método Mãe Canguru; Enfermagem Materno-Infantil; Literatura de Revisão como assunto.

RESUMEN

Objetivo: analizar las publicaciones científicas en el escenario brasileño relacionadas con las experiencias de profesionales con el método canguro. ***Método:*** revisión integradora utilizando las bases de datos LILACS, BDENF y Biblioteca Electrónica SciELO del 2003 al 2012. La selección de artículos se llevó a cabo después de un proceso de filtrado con los criterios de inclusión y exclusión. Para el análisis fueron llevado a cabo los pasos del método de Ganong y para clasificar el nivel de evidencia se utilizó la clasificación de Stetler et al. ***Resultados:*** se seleccionaron ocho artículos, con predominio del nivel de evidencia 4. Los objetivos tenían en común la preocupación por comprender el proceso de implantación del método canguro y su dimensión estructural y operacional. Fueron observadas debilidades y potencialidades relacionadas con la implementación del método. ***Conclusión:*** las percepciones de los profesionales fueron ampliamente citadas, pero no relacionadas con los otros actores involucrados en el método o con las condiciones de trabajo. ***Descriptores:*** Método Madre Canguro; Enfermería Materno-Infantil; Literatura de Revisión como tema.

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INTRODUCTION

Despite the steady decline in many countries, and sharply in Brazil, in the last two decades, one of the greatest global issues of public health is still the high child mortality rate. The death risk indicator in children under one year of age is still considered high and incompatible with the development of our country, because there is evidence that approximately 62% of neonatal deaths after live births weighting over 1,500 could have been avoided.[1] In 2010, one out of four deaths of children under one year of age occurred in the first 24 hours after birth — the neonatal death. This fact is usually related to situations of pregnancy, childbirth, availability and quality of perinatal care, mothers' biological characteristics, and families' socioeconomic conditions.[2]

In this context, premature birth is closely related to child mortality rate, which may be due to multiple causes, predictable or not. According to the World Health Organization, it was the first proportional cause of child death in children under five years of age, representing 17% of deaths worldwide in 2011. The same fact was observed due to respiratory infections.[3]

Premature birth—i.e., before completing 37 weeks of gestation—causes family disorganization, which changes the expectations and desires during the perinatal period. A recent Colombian study pointed out that, according to maternal perception, pregnancy is not enough for parenting and the separation of the mother from her prematurely born child, in addition to distancing, precipitates a feeling of 'emptiness', unawareness, insecurity, and inability to provide care to the child.[4]

From this perspective, it is noticed that efforts should be made to provide the maintenance of life in children who are prematurely born and encourage adaptation to extrauterine life, even before the full maturity of their organs. Thus, caring for a premature or low birth weight newborns (NB) in a neonatal intensive care unit (NICU) presents itself as a daily challenge to the healthcare team, because the actions provided to neonates may define the development process of these children. Still, it requires an environment with high technology and qualified professionals to meet the needs of this population in a humanized manner, which is the fundamental structure for survival of low birth weight newborns.[5]

Taking into consideration the technical and scientific progress of the health services and in clear opposition to the development of human relationships quality, the discussion on the humanization of health care became necessary, which is an issue that has been the subject of several national and international debates. Humanization in health care stands out as a priority program of the Ministry of Health (MH), in view of the demand for programs proposed by the government: National Program for the Humanization of Hospital Care (2000); Program for Humanization of Prenatal and Birth Care (2000); Kangaroo Method (KM) (2000); Hospital Accreditation Program (2001); and the National Program for Humanization (2003), among others.[6]

These programs seek to improve the quality of care with a focus on humanized care that emerges from diverse concepts, but converge to ethical and individualized care, respecting the uniqueness of each human being, which requires the reorganization of health institutions for the appreciation of social relationships.[4]

In this sense, in Brazil, from the perspective of changes in the maternal and child care setting, the Ordinance SAS/MS No. 693 of July 5th, 2000, updated on July 12th, 2007, under No. 1683, MH released the KM.[7]

This method is based on a set of humanized actions that involve premature or low birth weight newborns (PNB - LBWNB) and their families, in order to provide appropriate care, supportive atmosphere, encouragement of the kangaroo position, and subsequent outpatient follow-up, with the aim of promoting the formation of the triad bond "mother-NB-father", the reduction of stressors for the NB, encouragement of breastfeeding and parents' safety at the time of hospital discharge.[7]

In Brazil, the adhesion to the KM was not due to lack of equipment—such as historically occurred in Colombia in 1979—nor as a replacement to traditional practices, but by confirming that KM is a humanized care practice that brings great benefits to the NB and their families. This method is divided into three stages, namely: in the first stage at hospital the family participates in the care provided to the NB in the NICU; in the second stage, the kangaroo neonatal intermediate care unit (KNICU)[8] readmits the mother and she assumes the completeness of the care provided to the NB, with the supervision of the nursing staff; and, in the third stage, the outpatient follow-up of the NB is carried out. At all stages of the method there are eligibility criteria for the mother and for the NB that are contained in the Technical Manual

of Humanized Care for Low Birth Weight Newborn – Kangaroo Method.[7]

Once the national public policy was established, through the Standard of Humane Care for Low Birth Wight Newborn – Kangaroo Method, the need arose for the development of strategies to disseminate the KM throughout the country. The National Reference Centers for the KM were established and training of tutors and teams of several maternity hospitals were initiated aiming at the implementation and promotion of the KM.[9]

A study conducted in 2010 shows that, in 84.9% of the maternities trained by the MH, only 43.7% of them implemented the three stages of the method. This fact denotes that the training provided by the MH is indispensable for the beginning of the process, even in the face of the difficulties for the deployment and maintenance of the three stages.

There are several studies addressing the KM and they point out its potentialities and limits. This research started from the assumption that the health team professionals—especially of the intensive care units (ICU)—are those who will provide this care and will constitute the determinants in the implementation and application of the KM in maternity wards.

The present research was guided by the following question: What is the state of the art of Brazilian publications related to professionals' experiences with the kangaroo method published in the past ten years (2003 to 2012)?

OBJECTIVE

- To assess the scientific publications in the Brazilian scenario related to professionals' experiences with the kangaroo method.

METHOD

This article was drawn from the monograph "Kangaroo Method: integrative review as a basis for humanized care for the neonate and family" presented as a requirement for the completion of the Undergraduate Nursing Program at the Federal University of Paraná (UFPR), Curitiba, State of Paraná, Brazil, 2013.

The integrative review has been adopted as an important tool in the field of health. This research mode facilitates the process of communication of research findings and their use in the clinical practice, by synthesizing the available research on specific themes, directing the practice based on scientific knowledge, and providing input for the improvement of health care.[11]

There are several methods for conducting an integrative review as well as for performing a primary research.[12] The steps followed to conduct this review, using the method proposed by Lawrence H. Ganong in 1987, were: selecting a hypothesis or question for the review; sampling research or search in the literature; categorization of the studies; assessment of the data found; interpretation of the results; and presentation of the review.[12]

The sampling research for this integrative review begun in October 2012, in search of answers to the above mentioned survey question. It was carried out in three months, from October to December. The articles indexed from 2003 to 2012 in the Latin American Literature in the Health Sciences (LILACS), Nursing Database (BDENF), and Scientific Electronic Library Online (SciELO) databases were mapped. The range was chosen because it represents a period of 10 years of enforcement of the national policy of Humanized Care for Low Birth Weight Newborn (LBWN) or Pre-Term Newborn (PN).

For the delimitation of the thematic approach, the experience of professionals was assessed and a methodological path was drawn. At first, the strategy included searching for the expression "Kangaroo Method" in the title, because it allowed the selection of articles presenting the KM as an object of study and not just as quotation. The number of articles found with the term "Kangaroo-Mother Care" in the virtual health library "Health Sciences Descriptors" (DeCS) was significantly lower compared to those found with the expression "Kangaroo Method" in the titles.

The inclusion criteria for selection of articles included those indexed in the databases chosen, available in full and free of charge, and whose titles included the expression "Kangaroo Method" in Portuguese, due to the peculiarities in the implementation of the KM closely related to social, economic, and cultural characteristics of each country.[10] The exclusion criteria included: unpublished studies; theses and dissertations; articles that were not free of charge; articles that did not correspond to the timeframe defined; articles published in different languages; and those that did not address the topic chosen.

The initial selection presented: 40 articles from SciELO, five of which were repeated (repetitions were excluded); 25 articles from BDENF; and 67 articles from LILACS, totaling 127 articles. The filtration of the inclusion and

exclusion criteria left 35 articles from SciELO, 37 articles from LILACS, and 15 articles from BDENF, totaling 87 articles. As a result, after reading the titles and the abstracts systematically, it was found that 31 articles were common to all three databases. Thus, adding the 31 articles common to four exclusive articles from SciELO and six exclusive articles from LILACS, there was a total of 41 articles. These 41 articles were grouped into large charts—named mother-charts by researchers—by databases and discriminated according to the following categories: title of the article; academic degree of the authors; field of production; journal and year of publication; focus of the article; method; and conclusions.

After this selection process, it was observed a density of 49% (n=20) of publications in the professional field of nursing, followed by 17% (n=7) developed by municipal and state health departments, 12% (n=5) by medicine, 10% (n=4) by physiotherapy, 5% (n=2) by phonoaudiology, and 2% (n=1) by psychology. Joint publications were also observed between nursing and medicine (5%; n=2). The amount of these publications (65%) occurred between 2006 and 2010 with a sharp decline between 2011 and 2012.

With the categorization of these articles, according to the thematic development of the KM, seven subcategories emerged, namely: 16 articles (39%) were related to the experiences of the family members; 10 articles (24.4%) to the impacts to the newborn; six articles (14.6%) corresponded to bibliographical revisions; four articles (9.7%) highlighted professionals' experiences with the implementation of the KM; three articles (7.3%) reported professionals' experiences in the application of the KM; one article (2.5%) reported the implementation of the KM; and one article (2.5%) reported the experiences of family members and professionals. Therefore, with the approach focused on professionals' experiences with the KM, a sample of eight articles was obtained.

The intended reduction of the number of articles for assessment is justified by the possibility of an integrative review work and by the importance of health professionals' role, especially nurses, to the development of the activities of the KM in maternity wards, which are determinants in the implementation and application of the method.[10]

Finally, a data collection instrument was developed and filled with each article of the sample, allowing the identification of the following topics: databases; journals; year of publication; authors; stages of KM implemented; detailing of method and sampling; evidence level of the articles; goals of the research; conclusions; and recommendations.

The classification proposed by Stetler et al.[11,13] was used for the assessment of the evidence level and recommendations. The data found in the results were assessed and organized into figures. For some analyses, a quantitative presentation was used for the interpretation of results, with absolute and proportion number. For other analyses, a qualitative presentation of the content reported by the scientific publications was used, categorizing these findings as potentialities or weaknesses. This variant in the presentation results from the intention to adequate the presentation of the review for proper discussion.

RESULTS

The results presented refer to the eight articles selected to carry out this integrative review addressing the professionals' experiences with the KM. Figure 1 presents the databases, titles of the articles, names of the journals, locations where the studies were conducted, and years of publication.

Ref*	Databases	Title of the article	Journal	Location	Year
10	SciELO LILACS	Assessment of the implementation of the Kangaroo Method by managers, professionals and newborns' mothers	Cad. Saúde Pública	Various capitals	2012
14	SciELO LILACS	Kangaroo-Mother Care Method in hospitals/public maternities of the State of Salvador and performance of health professionals in the second stage of the method	Rev. CEFAC	Bahia	2011
15	SciELO	Institutional daily activities of the Kangaroo-Mother Care Method from the perspective of health professionals	Psicol. Soc.	Rio Grande do Norte	2011
16	SciELO LILACS	Implementation of the Kangaroo-Mother Care Method in the perception of nurses in a university hospital	Acta paul. Enferm	São Paulo	2008
17	SciELO LILACS BDENF	Humanized care for premature or low weight birth neonates: implementation of the Kangaroo-Mother Care Method in a university hospital	Acta paul. Enferm	Paraná	2006
18	LILACS SciELO BDENF	The Kangaroo-Mother Care Method under the problematizing perspective of a neonatal team	Rev. bras. Enferm.	Santa Catarina	2006
19	LILACS SciELO	The Kangaroo-Mother Care Method in public hospitals of the State of São Paulo, Brazil: an analysis of the implementation process	Cad. Saúde Pública	São Paulo	2006
20	SciELO LILACS	Knowledge and practices of health professionals concerning the "humanized care provided to low birth weight newborns - kangaroo method"	Rev. Bras. Saúde Mater. Infant.	Rio de Janeiro	2006

***Ref.= refers to each complete bibliographical reference.**

Figure 1. Distribution of articles by source database, title, journal, location, and year of publication.

Figure 2 presents the type of study, the methodology and the evidence level of the articles.

Ref*	Method	Evidence
10	Qualitative assessment with visits to maternity wards to apply semi-structured interviews to health professionals, managers, and mothers.	Level 4
14	Observational, quantitative and descriptive study conducted with a survey of data obtained in public hospitals/maternity wards of the State of Salvador and a questionnaire applied to healthcare professionals performing the second stage of the method.	Level 4
15	Qualitative study conducted from the perspective of institutional ethnography through interviews applied to professionals of the Kangaroo Program, with focal group strategy.	Level 4
16	Exploratory and descriptive study with qualitative approach and data collection by means of semi-structured interviews.	Level 4
17	Case studies of nurses and other professionals of the multiprofessional team on the implementation process of the Kangaroo-Mother Care Method in a university hospital.	Level 5
18	Case studies on educational practice, in which planned workshops were organized with the proposal of an educational/reflexive process concerning the Kangaroo Method, using problematizing methodology.	Level 5
19	Cross-sectional study conducted with the responses to a questionnaire forwarded via e-mail to public hospitals.	Level 4
20	Cross-sectional descriptive study in the field of evaluative research on knowledge and practices of health professionals with respect to the Kangaroo Method, performed with the application of in-person questionnaires.	Level 4

***Ref.= refers to each complete bibliographical reference.**

Figure 2. Distribution of articles by type of study, methodological option, and evidence level.

Figures 3 and 4 show the main results found, which were categorized as potentialities and weaknesses in order to allow a more detailed discussion.

Potentialities	References*	%**
Importance of teamwork.	14-16-17-18	50
Importance of training.	10-17-19	37.5
Importance of documents for care support and monitoring of KM care.	17	12.5
Measures to facilitate the implementation of the KM: being teaching hospital, being child friendly hospital, having human milk bank, having more than 12 trained professionals.	19	12.5
Appreciating mother's participation in the KM by the professionals, managers, and the mothers.	10	12.5

***Ref.= refers to each complete bibliographical reference.**
****Percentage of the eight articles.**

Figure 3. Categorization of articles according to the potentialities reported.

Weaknesses	References*	%
A) Administrative, management, and structural aspects	10-16-19-20	50
Inadequate physical structure.	7-16-20	37.5
Insufficient human resources.	10-16	25
Inadequate organizational and material resources.	10-16	25
Training focused only on the professionals.	19	12.5
Lack of professionals' engagement in the decision-making process.	16	12.5
Lack of institutional support.	10	12.5
B) Unique professional aspects	10-15-16-17-18-19-20	87.5
Lack of adhesion to the measures advocated by the KM and gap between knowledge and applicability.	10-17-18-159-20	62.5
Insufficient appreciation of family participation in the KM.	18-19-15	37.5
Professionals relate the KM only to the second stage.	20	12.5
***Ref.= refers to each complete bibliographical reference.**		

Figure 4. Categorization of articles according to the weaknesses they report.

The recommendations made by the authors are presented in Figure 5 and related to the initiatives proposed to achieve the proposals of the public policy for humanized care provided to PN and LBWN - KM.

Ref.	Recommendations	Initiatives suggested
10	➢ Performance of trainings for employees of all levels, including managers. ➢ Conducting further assessment studies on neonatal outcomes according to the Brazilian proposal to consolidate the benefits of the kM. ➢ Creation of protocols for monitoring the stages of the KM. ➢ Institutional support for the definition of a support network for the other family members/children in the absence of the mother at home (due monitoring of the premature/low birth weight newborn in the KM).	- Training; - Assessment; - Institutional protocols; - Institutional support.
14	➢ Performance of other comparative studies between public hospitals and maternities that carry out or not the KM in order to confirm the effectiveness of the KM.	- Assessment;
15	➢ Incorporation of the sociocultural dimension of the subjects that experience the KM in programs or health policies. ➢ Greater appreciation of mothers' participation in the daily practice of the KM.	- Adequacy of the policy /Institutional program.
16	➢Continuous monitoring and assessment of the whole process of change in service to encourage the reorganization of activities related to care, management, and teaching and research. ➢Nurses as trigger of the process of change.	- Assessment; - Role of nursing;
17	➢Interaction of technological resources with human and family relationships. ➢Interactive initiative of the KM integrated with existing ones to improve the quality of multidisciplinary care and the quality of life of the patient. ➢Team sensitive to the benefits of KM for the newborn, family and professional satisfaction.	- Multiprofessional care; - Implementation integrated to existing actions ; - Team awareness.
18	➢ Promotion of the integrality of professional actions for the continuation of the process. ➢ Maintenance and expansion of democratic, inclusive, and reflective spaces at work for the debate of the care provided focused on information.	- Multiprofessional care; - Spaces for discussion.
19	➢ Continued and expanded training (number of professionals) with strategies that encourage family participation. ➢ Greater engagement of managers with the creation of support mechanisms for professionals, related to the interrelation of the actors involved. ➢ Public budget support for the implementation, monitoring and assessment of the method in hospitals. ➢ Inclusion of all spheres of management in the governmental strategy of implementation and dissemination of the KM. ➢ Development of further studies on the implementation of the KM.	- Training; - Local, municipal, and state management/institutional support.
20	➢ Continuing education in all levels of training for health professionals that care for newborns. ➢ Adequacy of the physical structure of neonatal units. ➢ Further studies for a wide assessment of the implementation and the results of neonatal care under the KM.	- Training; - Assessment; - Government and institutional support.

Figure 5. Distribution of articles by the recommendations and categorization of activities suggested by the authors.

DISCUSSION

Regards to the databases, it was found that there was repetition of 90% of articles. SciELO had 100% of the sample (8), LILACS 7, and BDENF 2, of the total of eight articles. BDENF had a smaller number of articles, probably because this database offers articles exclusively of the nursing field and the articles were published until 2010, whereas the review included articles published until 2012. This proportion, however, did not match the topic of authoring, because more than 49% of studies preliminarily found (n=41) had been conducted by nurses. Another hypothesis that can be raised relates to the refinement of the sample, which was performed focusing on articles that addressed the experiences of health professionals with respect to the KM, therefore not limited to the nursing field.

Regarding the year of publication, 2006 had the largest number of publications (4; 50%). This feature can result from the time in which the diffusion of the KM by the Brazilian MS started, that is, in 2000, because the practice of the KM requires training of the professionals and physical, structural, and human resources adjustments. From 2000 to 2003, the first training courses for professionals who cared for high risk in neonatology were performed in nine KM reference centers accredited by the MH.[7]

With regard to the authorship of the 41 articles, 49% (20) of the selected publications belonged to the nursing field, followed by the medical field (12; 5%), physiotherapy (4; 10%), partnership between medicine and nursing (2; 5%), phonoaudiology (2; 5%), and psychology (1; 2%). It was noted that this topic was addressed by various professional fields, a fact which shows that the topic under study is a multidisciplinary field. The standard of the MH regarding the KM recommends that the team responsible for providing care to newborns and families should be multiprofessional, consisting of: physicians; nurses; psychologists; physiotherapists; occupational therapists; social workers; speech therapists; nutritionists; and nursing technicians and assistants.[7]

Focusing on the eight articles that composed the sample, among their 22 authors, 50% (11) held a doctoral degree, 18.2% (4) held a master's degree, 18.2% (4) were specialists, 4.5% (1) was graduate, and 9% (2) were undergraduate students. Still, according to the field of expertise, 72.7% (16) belonged solely to the academic field and 27.3% (6) worked with health care. According to the authors, this is the reality of research in Brazil, namely, health care professionals, who have a wealth of knowledge and a great amount of information coming from their work, seem not to be interested, or may not receive support for research and publications; therefore, the studies are almost exclusively conducted in the academic field.[21]

Considering the three complementary and sequential stages of the KM, 26% (2) of the articles addressed exclusively the second stage, and 37% (3) addressed the first and second stages of the KM, the same percentage addressing the three stages of the KM. This way, it was observed that the stage most addressed in the studies was the second, finding that corroborates with other research,[20] which showed that professionals still linked the KM only to the second stage and the kangaroo position.

Regarding the methodological approach of the articles, it was noticed the prevalence of studies conducted with the use of descriptive research in six of the eight publications (Figure 2); therefore, articles with level 4 evidence. The goal of this type of research is the description of the characteristics of a given phenomenon, in this case the KM. This methodology is typically used by researchers concerned with the performance in practice. It can be concluded that the KM still disregards level 1 studies with evidence obtained from meta-analysis of multiple controlled and randomized clinical studies, level 2 studies with methodology based on individual studies with experimental design, and also level 3 studies, which are the evidence of quasi-experimental studies.

With respect to the goals of the eight articles, there was the intention to know how the implementation process of the KM occurred in maternity wards, as well as the difficulties and advantages of this process,[10,18-9] and how the activities were carried out by the nursing teams and their perceptions about the KM,[15-6,20] in addition to the initiatives of federal, state, and regional managers to know the amount of hospitals/maternity wards that implemented and applied the KM. There were also case reports that socialized ways to implement and reinforce the practice of the KM in hospital institutions.[14,17] However, there was a concern on the part of researchers with respect to the understanding of this process in its structural and operational dimension.

Researching the perceptions of nursing teams with respect to the implementation and practice of the KM, the authors reached varied conclusions, which could be operationally categorized—for greater clarity of discussion—into potentialities and

weaknesses. This procedure was done after repeated careful readings of each article, seeking to highlight the considerations and their similarities and differences.

From this perspective, with respect to the potentialities (Figure 3), i.e., those expected situations that indicate the success of the KM in its implementation and application of humanized care for the NB and family, it was observed that 50% (4) of the articles pointed out to the importance of multidisciplinary teamwork in the practices of the KM so that there was exchange of information and knowledge in a dialogical relationship, aiming at the engagement in care and the effectiveness of the KM implementation.[11,15,17-8]

Subsequently, 37.5% (3) emphasized the importance of training, the education process, which should permeate the entire health care practice, so that taboos of traditional care are broken and also contributes to the professional appreciation and respect.[11,18]

Only one article (12.5%) pointed out the importance of appreciation on the part of managers and professionals and the active participation of mothers in the recovery process of at-risk NB induced by the KM. In this regard, the training and the ongoing dialogue of the care team becomes imperative. The mothers interviewed also perceived themselves as important actors in this process. They recognized the active role of the mother and agreed with the professionals by citing that the NB near the mother recovers faster.[14]

No less important, but lower in number, one publication pointed out measures considered facilitators for the implementation of the KM, through encouraging breastfeeding and the creation of the mother-child bond, namely: being baby friendly hospital and having human milk bank. It is known that support for breastfeeding and hospital wards are indispensable for the completion of the KM in hospital daily activities.[26] Another situation that corroborates the implementation of the KM actions is a trained team. This article considered that having more than 12 trained professionals was a fundamental issue for the success of the KM.[23]

It should also be noted that instruments for recording the process of care provided to the NB/family in the KM should be used in order to monitor evidence of success, or even, so that situations which have to be adjusted can be pointed out.[17] The weaknesses—i.e., the results that do not meet the desirable and expected success of the KM—were divided into: structural, administrative, and managerial aspects (SAMA), which, under a more expanded perspective, are related to the macro structure of the institution; and unique professional aspects (UPA), which are closely related to the disposition and attitude of health professionals. With respect to these categories, it was noticed that 87.5% of the articles reported weaknesses with respect to the UPA, whereas 50% reported them with respect to the SOMA.

These data confirm the previous explanation that health professionals are determinants for the implementation of the KM[10] and may interfere negatively with the premises advocated by the MH. They have greater power than the administrative matters to influence negatively the incorporation of this methodology. This statement is based on articles published in the last decade and on the present integrative analysis.

Among the UPA, the most quoted weakness was the lack of adherence to measures advocated by the KM, which was reported in 62.5% (5) of the sample.[10,16-18,20] This result suggests that some health professionals might even know the stages of the KM and define it as beneficial to the family and the NB; however, changes of paradigms did not occur in practical actions, namely, it is possible to observe the difficulty in the processes of changes in the health services.[20] The whole cultural change of an institution depends on efforts on the part of those involved; however, with respect to the KM, resistance and lack of interest on the part of some professionals was observed, since they did not to attach importance to the method, making the care practice little reflexive.[18]

Another weakness highlighted in 37.5% (3)[15,19-20] of the studies was the lack of families' appreciation of care provided to the NB. It should be noted that one of the pillars of the method is the family engagement in care, seeking the strengthening of the mother-NB and "mother-team" bonds, in addition to a safe hospital discharge.[7]

In this respect, it can be inferred that nursing teams have traditionally centralized neonate care and, although the practice of the participating parents is not recent, it goes back to the Statute of the Child of 1990, which has also been studied and has had its importance proven internationally for more than two decades.[23] Nevertheless, it is observed that there is still time needed for professionals to internalize, or why not say believe, that the actions of neonate care in ICUs can be carried out safely by the parents, provided there is health education and adequate supervision of such care.

Among the SAMA, the inadequate physical structure emerges emphatically in the scientific studies conducted (37.5%; 3).[10,16,20] Since the KM is established in three stages in Brazil, it is worth noting that, in the second stage, there is a need for an infirmary that embrace the mother and her NB, and this service must be attached to the NICU. This way, the need to adapt the physical spaces in public or private hospital institutions requires enhanced discussions, involving experts from the field, financial planning and, above all, the acceptance on the part of the managers involved. In another article found in the course of this review, the same difficulty was observed, mainly with respect to the outpatient clinic for follow-up of the NB after hospital discharge, i.e., the third stage of the method.[10]

Another obstacle pointed out in 25% (2) of the articles[10,16] was the lack of human resources. It is necessary to remember that the first manual of the MH on the KM (2002) addresses the need for professionals, in addition to advocating the physical resource of the kangaroo infirmary. In this sense, the Ordinance GM No. 930 of May 10th, 2012, advocates a new classification of neonatal unit beds, in which they are considered intermediate neonatal care beds (NICU) that are subdivided into conventional (NICUo) and occupancy for applying the KM (NICUa).[8]

Still, as a challenge in the implementation of the KM, the lack of institutional support is pointed out,[10] possible due to the non-participation of managers in trainings—an issue previously addressed—as well as the inadequacy of organizational resources and the scarcity of material resources. The pauperization of the conditions at the workplace makes the users and the professionals more exposed to risks to their physical integrity resulting from a precarious care.[24]

Finally, with regard to recommendations, there was an intention to express them as initiatives suggested, because actions to reach them—i.e., transforming them into practical actions—can be predicted.

Most recommendations included managerial support and they were found in six articles of the sample,[10,15,17-20] whether local or institutional, municipal and state support, each in their level of expertise for the implementation and performance of practices related to the KM. Moreover, the possible actions of the actors involved in management were expressed as the creation of policies that encouraged the actions advocated by the KM.[15] The adequacy of the policy or an institutional program, from the perspective of their interlocutors, incorporating the sociocultural dimension of the subjects, was recommended,[15] in addition to institutional protocols that regulate the KM,[10] assessing the assignment of each professional, including managers in this methodology in order to facilitate the application of humanized care practices, such as documents to assess pain in the neonate, the signs of the NB and mothers after the kangaroo position, and monitoring of hospitalizations in the kangaroo infirmary.

Despite being included in only one article,[18] but also considered as managerial support, the spaces of discussions for the development of the KM are indispensable to the construction of this new paradigm of caring for the low birth weight neonate. The proposal put forward by the MH guides the process of the KM; however, the services must adapt their care actions based on their ability to change and, often, reassess these processes so that further progress can happen.

In this sense, the need for the continuity of training was recommended in 37.5% (3) of the articles,[10,19] which even emphasized the importance of the participation of managers, who are responsible for making decisions and not for promoting training, because they do not have all the knowledge that this methodology brings to the care for the low birth weight neonate.

Among the recommendations made in the studies assessed, 37.5% (3) of the articles[10,14,20] mentioned the increase in the number of studies that assess the practices related to the KM. Among the approaches for further studies, the recommendations included the assessment of: neonatal outcomes; the implementation of the method in hospitals; the dynamics of professionals' work; the political, social, and cultural context of the implementation of the methodology and the impact of the KM.

Only one article of the sample[16] assessed the role of nurses in the change process. In the neonatal unit, the parents of NB admitted to the NICU identified the nurse as the articulator of care, who offers support and guidance needed to maintain the bond and the embracement.[25] With the aim of accomplishing qualified care, nursing facilitates the interaction and bond between the mother and the NB and the interaction between them and professionals.[26] Both the nurse and the team are the ones that remain more time alongside the NB and family members, being more aware of the needs of each triad and the opportunity to apply the principles of the KM.

Based on the present integrative review, it can be stated that in view of the need for a greater number of publications addressing the KM, they should be related to the experiences and working conditions of health professionals and also the positioning of managers, because the latter can be considered the main actors in the process of institutional change.

FINAL REMARKS

The results showed multiple considerations about professional practices in the KM, even though health professionals may sometimes interfere negatively in such practices. The weakness most found in the articles assessed was the lack of adherence to measures advocated by the KM Protocol. This fact denotes that some professionals had not incorporated this methodology into their practice, usually focusing only on the NB, without taking into account the mother and other factors involved, such as the social issues of the family, the network of social support, and the environment of the NICU, among other aspects. However, there is also evidence of how the administrative issues can influence negatively care practices and the incorporation of this methodology. Among the major difficulties in the implementation of the KM, those related to management must be highlighted, such as the inadequacy of human and physical resources, and the lack of institutional support.

Even though the KM has been recognized as a sensitive and humanized care practice, that brings benefits to the RN, the family and even the health care institution, there are several difficulties in its implementation and application. However, with the findings of this review, a number of measures to overcome the difficulties and optimize the practices related to the KM are addressed. Multidisciplinary care and, as a result, teamwork are pointed out as important potentialities in the practices of the KM, as well as training and the development of documents for care support, which also serve for monitoring the care provided.

Although the professionals' perception is addressed in the studies of the sample, the research is sometimes restricted. This consideration is made due to the lack of addressing professionals' experiences with the other actors involved, such as mothers and managers, and also their own working conditions, such as workload and wages, in addition to the physical structure and institutional resources.

It is suggested the development of further research to deepen the KM with its human inter-relationships (between the social actors) and institutional inter-relationships (political-administrative), so that the bond, the embracement, and the engagement of parents in the care for premature and low birth weight NB can be encouraged with the incorporation of practices of the KM care model, thereby ensuring the rights of the NB and their families in a humanized manner.

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Submission: 2014/02/21
Accepted: 2014/06/22
Publishing: 2014/10/01

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