Conference Paper

Belief and Policy Influencing Nurses in Implementing Kangaroo Mother Care: A Systematic Review

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Abstract

5.9 million child deaths occurred in 2015, almost 1 million happened in the first day of life, and close to 2 million took place in the first week (UNICEF 2014). Respiratory distress syndrome, hypothermia, and sepsis were the leading causes of death among newborns. Kangaroo Mother Care (KMC) for Low Birth Weight (LBW) in a community can improve survival, especially where the access to health facilities is limited. Although nurses play an essential role in implementing KMC in the community, there is limited systematic information available on the factors that are influencing nurses in implementing KMC. This systematic review sought to identify the most frequent factors affecting nurses in implementing KMC. This study relies on PRISMA. We searched three electronic databases and relevant reference lists for publications reporting factors influencing nurses in implementing KMC. We identified 938 unique publications, of which 104 were included based on pre-specified criteria. Publications scanned for all factors affecting nurses in implementing KMC. Each paper was also categorized based on its approach to the identification of barriers. The remaining 15 articles spanning six years (2011-2016) included in this review. We identified factors that influence nurses in implementing kangaroo: the attitude of nurses is ambivalent, lack of knowledge, belief, lack of infrastructure, the physiological stability of baby, lack of standard operational procedures, lack of skills, institutional leadership and lack of policy. Three of the top-ranked factors influencing KMC practice for nurses were: belief, lack of policy and lack of standard operational procedures (SOP).

Keywords: Kangaroo Mother Care (KMC); nurses; barrier; policy; belief

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1. Introduction

The first 28 days of life, the neonatal period is the most vulnerable time for a child's survival. The global neonatal mortality rate in 2015 was 19 deaths per 1.000 live births. Over the same period, the number of newborn babies who died within the first 28 days of life was 2.7 million. This pattern applies to most low- and middle-income countries. Of the estimated 5.9 million child deaths in 2015, almost 1 million occur in the first day of life and close to 2 million take place in the first week (UNICEF 2014) Respiratory distress

syndrome, hypothermia and sepsis were the leading causes of death among newborns (Abdalla and Ali 2015).

Kangaroo mother care is a complex intervention with several possible components skin-to-skin contact, breastfeeding, early discharge, and follow-up. The included components varied across locations and by individual implementer(Engmann et al. 2013). KMC for low birth weight newborns in community settings may greatly improve survival, especially where access to health facilities is limited. In low birth weight newborns (< 2000 g) who are clinically stable, kangaroo mother care reduces mortality and if widely applied could reduce deaths in preterm newborns (Chan et al. 2016). Research from various countries also suggests that KMC is a cost-effective method for treating preterm infants, mothers who have practiced KMC may find it acceptable (Seidman et al. 2015). However, in spite of the evidence, country-level adoption and implementation of kangaroo mother care have been limited and global coverage remains low (Chan et al. 2016).

Many studies discuss the barriers and enablers of KMC (Abdalla and Ali 2015; Chan et al. 2016; Seidman et al. 2015), but There is limited systematic information available on the factors influencing nurses in implementing KMC. This review set out to synthesize existing literature on the factors that affect nurses in performing KMC by answering questions, what are the most frequently cited barriers that could prevent nurses from successfully implementing KMC? These barriers can exist at multiple levels, including barriers to implementation of KMC program, deficiencies in the program itself, or specific challenges associated with the practice of KMC which the nurses must perform. Even though the particular barriers most relevant for nurses may vary based on context, a comprehensive list of this type will give program implementers and researchers a synthesized set of factors to consider as they attempt to implement new or improve existing KMC programs.

2. Methods

This study relies on the Preferred Reporting Items for Systematic Review and Meta-Analyses Statement (PRISMA). The authors searched Scopus, Pro Quest, and the World Health Organization's regional databases, for studies on "kangaroo mother care" or "kangaroo care" or "skin-to-skin care" from Jan 2011 to February 2016, without language restrictions. We included relevant reference lists for publications reporting barriers or enablers to KMC practice. We identified 938 unique publications, of which 104 were added based on pre-specified criteria. Each paper was also categorized based on its approach to identification of barriers/ enablers and nurses assigned to publications

which had systematically sought to understand factors influencing nurses in KMC practice. The remaining 15 articles spanning a 6-year period (2011-2016) included in this review.

The data source is selected based on the title, abstract and full-text paper that match the keywords that have been assigned, published in English. The inclusion criteria used in this study included journals that have been reviewed by experts, describes the factors influencing nurses in implementing KMC. Dissertations and these excluded from this study.

Based on this search strategy, our findings included many studies which had observational information on factors influencing nurses in implementing KMC. Given the limited amount of synthesized information on barriers to KMC practice, we felt it was important to include these observational findings so that relevant programmatic experience informed this review.

Each study was placed into one of these categories independently by one reviewer, in our findings and discussion, we refer to ”top-ranked” factors influencing nurses in implementing KMC. Top-ranked factors are affecting nurses in implementing KMC that received the highest score based on this indexed ranking, which accounts for both frequencies of mention across publications and weighting of each piece of evidence based on the publication type. To understand factors influencing nurses in implementing kangaroo mother care we created a narrative analysis of the articles and reports identified, guided by a green model.

There are some limitations to this assessment. This study aimed to synthesize existing literature on factors influencing nurses in implementing KMC. As noted, there are some limited systematically organized information on this topic. Therefore, to ensure that our review captured as many relevant qualitative and quantitative findings as possible, we choose to include any study identified through our search strategy which had information on factors influencing nurses in implementing KMC, even if studying this topic was not
the primary purpose of the publication. The article inclusion is small, taken from 15 articles.

3. Results

The articles were mostly international journals relevant to the theme of research and design of the type of systematic review, open interviews, observation, and competency assessment. Researchers used 15 literatures that almost all medical journals and bulletin of the World Health Organization. Of the 104 papers identified, we included 15 studies

with qualitative data on barriers to and enablers of kangaroo mother care — the studies published between 2011 and 2016.

The samples used were a scientific journal that searched in journal databases. Chronology of the sample data selection can be seen in the flowchart below:

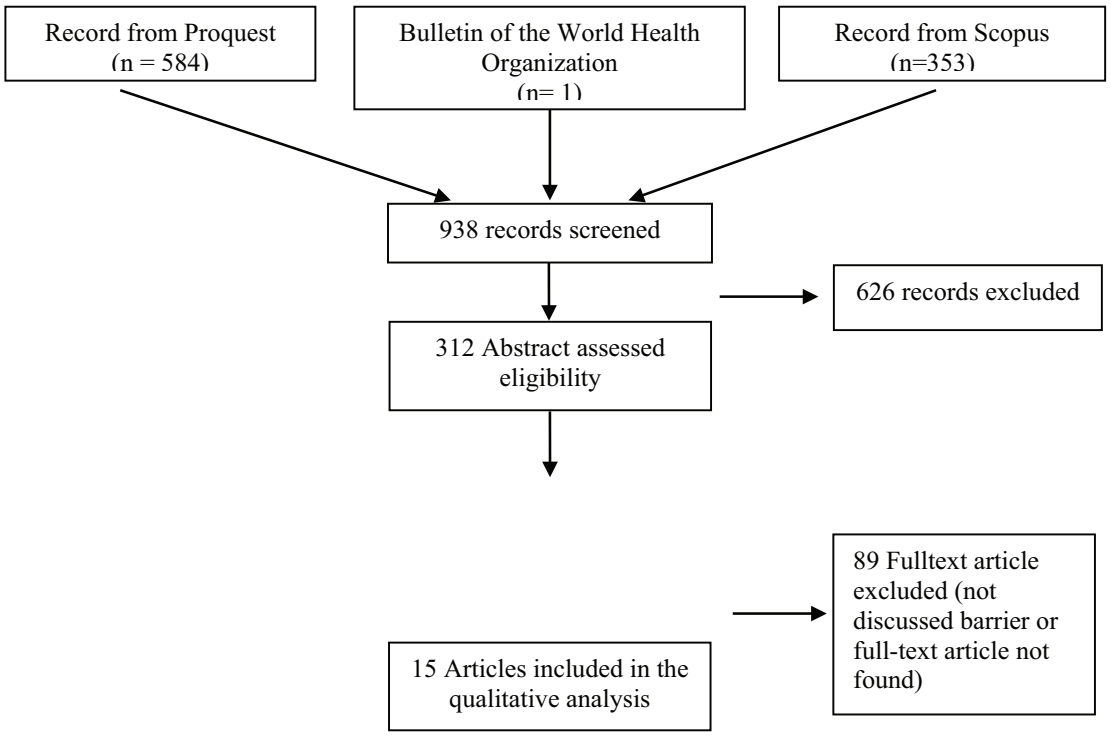

Figure 1: Flowchart showing the selection of studies on kangaroo mother care (KMC).

Using incubators for LBW babies is costly, and there are a limited number of nurseries available in many health centers. The warmth of the mother's body turned out to be a useful source of heat for babies born premature or low birth weight. This occurs when there is direct contact between the mother's skin and the baby's skin. This principle is known as skin to skin contact or kangaroo mother care (KMC) (Ludington-Hoe RN, CNM, Ph.D., FAAN 2011). This method is useful for premature babies to help restore a result of prematurity and maintain parents to be more confident and be able to play an active role in caring for their baby (Malhotra et al. 2014). Kangaroo method role in newborn care humanely improves the bond between mother and baby.

However absorption KMC as a routine practice so slow (Kymre n.d.). Many studies of the KMC method showed the barriers in implementing it. Mother, father, and family are usually the primary caregivers of premature newborns and involved in decision making and care practices (Nyqvist 2016). Health practitioners play an essential role in implementing the KMC in hospitals or health care facilities (Gabriel Seidman et al. 2015). Their primary purpose is to educate parents about the KMC.

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TABLE 1: The inclusion articles related Belief and Policy InfluencingNurses in implementing KMC.

Study	Purposes	Subjects	Design/methods study	Result	Barrier KMC	Conclusions
The Three waves in the implementation of facility-based kangaroo mother care: A multi-country case study from Asia (Bergh, A.M, de Graft-Johnson, et al.)	This study aimed to understand the institutionalization processes of facility-based KMC services in three Asian countries (India, Indonesia, and the Philippines) and the reasons for the slow uptake of KMC in these countries.	Three countries in Asia (India, Indonesia, and the Philippines)	Three primary data sources were available: background documents providing insight into the state of implementation of KMC in the three countries; and data from interviews and meetings with key stakeholders.	Three main data sources were available: background documents providing insight into the state of implementation of KMC in the three countries;	KMC knowledge and skills dissemination, funding, training, implementation and the drafting of guidelines or standard operating procedures (SOP), not political entrepreneurs familiar with advocacy strategies which could promote KMC.	This paper illustrated the complexities of the implementation of a new healthcare intervention. Enabling mothers and their families to practice kangaroo mother care entails a complex interplay between health-system requirements, organizational culture, human behavior, and community networks.
NICU nurses' ambivalent attitudes in skin-to-skin care practice Kymre, Ingjerd G. (2014)	To illuminate the essence of the Neonatal Intensive Care Unit (NICU) nurses' attitudes in skin-to-skin care (SSC) practice for preterm infants and their parents.	Eighteen Swedish, Danish, and Norwegian nurses from NICUs	The approach assumes an open attitude to the phenomenon, in this case, the essence and its constituents of how NICU nurses' attitudes towards SSC	NICU nurses' attitudes in SSC practice are ambivalent.	The nurses consider the sensory, wellness, and mutuality experiences to be primary and vital and enact SSC as much as possible. But their attitudes are ambivalent in facilitating KMC	The source of NICU nurses' ambivalent attitudes in SSC practice is a complex interplay of beliefs, norms, and evidence, which have a multidisciplinary basis
Barriers to Implementation of Facility-based Kangaroo Mother Care for Pre Term and Low Birth Weight Infants in River Nile State (British Journal of Medicine)	To identify significant factors that limit the introduction of kangaroo mother care (KMC) services in River Nile State, Sudan	A total of seven pediatricians in hospitals (Atbara and Al-Damar hospital).	A facility-based qualitative cross-sectional study conducted in two hospitals (Atbara and Al-Damar hospital). A total of seven pediatricians working in these two hospitals were interviewed using the semi-structured interview.	Problems facing pediatricians when caring for the preterm were; lack of incubators, non-functioning incubators, insufficient and untrained staff especially nurses beside rapid turnover.	Lack of awareness among mothers, health staff and the community, and the community health culture were the main two obstacles to KMC implementation. Financial support, staff training, and separate wards made for mothers' privacy.	Lack of knowledge among health care, mother, families, and community were obstacles to KMC. Awareness needs to be raised.

Study	Purposes	Subjects	Design/methods study	Result	Barrier KMC	Conclusions
Kangaroo mother care: a systematic review of barriers and enablers, Chan, Grace J; et.al94.2 (Feb 2016): 130-141J.	to investigate factors influencing the adoption of kangaroo mother care in different contexts	We screened 2875 studies and included 112 studies that contained qualitative data on implementation.	We searched PubMed, Embase, Scopus, Web of Science and the World Health Organization's regional databases, for studies on "kangaroo mother care" or "kangaroo care" or "skin-to-skin care" from 1 January 1960 to 19 August 2015	KMC was applied in different ways in different contexts. The studies show that there are several barriers to implementing KMC, including the need for time, social support, medical care, and family acceptance.	Barriers within health systems included organization, financing and service delivery. In the broad context, cultural norms influencing perceptions and the success of adoption.	Kangaroo mother care is a complex intervention that is behavior driven and includes multiple elements. The success of implementation requires high user engagement and stakeholder involvement
Barriers and enablers of kangaroo mother care practice: a systematic review: e0125643 Seidman, et.al. Plus one10.5 (may 2015)	to identify the most frequently reported barriers to KMC practice for mothers, fathers, and health practitioners, as well as the most commonly reported enablers to practice for mothers	1.264 different publications, of which 103 were included based on pre-specified criteria.	We searched nine electronic databases and relevant reference lists for publications reporting barriers or enablers to KMC practice. We identified 1.264 unique publications, of which 103 were included based on pre-specified criteria.	Barriers to KMC practice were resource-related: "Issues with the facility environ-ment/resources," "negative impressions of staff attitudes or interactions with staff," "lack of help with KMC practice or other obligations," and "low awareness of KMC	The resourcing barriers "Actual increased workload/staff shortages" and "Lack of clear guidelines/training". The sociocultural barriers "General lack of buy-in/belief in efficacy" and "Concerns about other medical conditions/care" were also in the top five barriers for nurses from LMIC.	As KMC gains momentum with the rollout of various other Reproductive, Maternal, Newborn, & Child Health and Nutrition programs, including ENAP, it is critical to understand the barriers to practice for the end-users, often the mother, of this life-saving practice, which has many additional benefits for infants and mothers
Improving kangaroo care policy and implementation in the neonatal intensive care Hilary Moore, RN, BSN, DNP Student(8)	There examines the current evidence-based practice for providing kangaroo care in the Neonatal Intensive Care Unit (NICU).	20 Related articles before 2000 were studied	Searching: kangaroo care, NICU nurses, neonatal intensive care units, STSC, preterm infant, low-birth weight, family-centered care, communication, policy, and nursing barriers.	the search produced a total of 20 articles; 12 of these met the criteria for further review based upon the Initial knowledge gained within the abstracts.	the overall response from the nurses concluded that insufficient training and lack of a standard policy were key barriers to kangaroo care participation	However, these randomized control trials lack information about kangaroo care guidance for parents and nurses, nursing judgment, and a standard policy

Study	Purposes	Subjects	Design/methods study	Result	Barrier KMC	Conclusions
Assessment of Essential Newborn Care Services in Secondary-level Facilities from Two Districts of India Malhotra et.al (mar 2014): 130-41.	To ascertain the current situation of ENC to find out the strengths and weaknesses in the quality of new care service provision.	Six secondary-level facilities from the districts-two district hospitals (DHs) and four community health centers (CHCs) evaluated, where maximum institutional births within regions were taking place.	We examined focus on ENC in two Districts, one each from two states in India. The assessment included record review, facility observation, and competency assessment of service providers, using structured checklists and sets of questionnaires.	Our assessments showed that no inpatient care was being rendered at the CHCs while, at DHs, neonates with sepsis, asphyxia, and prematurity/LBW managed.	Although knowledge was found satisfactory in most of the domains, there existed a huge deficiency in performance skills among all cadres of personnel assessed. Resuscitation, care at birth, and KMC were the weakest areas.	The findings underpin the need for improving the existing ENC services by making new care corners functional and enhancing skills of service providers to reduce neonatal mortality rate in India.
A Study on Attitude and Practice of Maternal Child Health Nurses Regarding the use of KMC in Selected Hospitals at Mysore Ambika K1	To assess, to find and to determine the attitude and practice of maternal child health nurses regarding the use of kangaroo mother care	The population consisted of maternal child health nurses in Mysore	The research approach and design adopted for the study was a descriptive survey approach. The population consisted of maternal child health nurses in Mysore.	The majority (93.33%) of maternal and child health nurses had a positive attitude, and only 4 (6.7%) had a negative attitude towards the use of KMC.	Majority of maternal child health nurses reported of positive attitude, but it is not practiced in their clinical setting.	The recent concept of Kangaroo Mother Care (KMC) or the skin to skin care is an economical, acceptable and practical way for maintaining a temperature of the LBW neonates. Promoting kangaroo mother care is one-way neonatal nurses can enhance closeness between parent and infant.

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Study	Purposes	Subjects	Design/methods study	Result	Barrier KMC	Conclusions
Maternal and Neonatal Nurses Perceived Value of Kangaroo Mother Care and Maternal Care Partnership in the Neonatal Intensive Care Unit Karen D, et.al	To examine maternal and neonatal nurses provider perspectives on the value of KMC and MCP.	Forty-two of 51 eligible neonatal nurses (82.3%) participated in the survey. One hundred forty-three mothers were invited to join and all completed the study.	Prospective cohort design of neonatal nurses and mothers of preterm infants' self-report anonymous questionnaire. Analyses of categorical independent variables and continuous variables calculated.	The strength of belief between mothers and nurses as well as racial/ethnic and foreign-born cultural associations with a power of knowledge of KMC value and parental involvement in infant's care.	Identified that the technique of KMC was not accessible to them, that KMC was not something that they were made aware of by their nurses, or this information delayed in its presentation.	Mothers held strong positive perceptions of KMC and MCP value compared with nurses. Nonwhite mothers perceived they received less education and access to KMC. Barriers to KMC and MCP exist among nurses, though less in nonwhite, foreign-born, and nurses with their children, identifying opportunities to improve maternal KMC access in the NICU.
Assessing clinicians' knowledge and confidence to perform kangaroo care and positive touch in a tertiary neonatal unit in England using the NUCAT Wendy, et.al	We describe how clinicians in a tertiary hospital neonatal unit undertook a training needs analysis using the NUCAT, an online knowledge test with ratings of confidence and knowledge in the practice of KC and PT	The Neonatal unit in University Hospitals Coventry and Warwickshire NHS Trust is a tertiary center in England with around 650 admissions and approximately 100 clinical staff.	NUCAT in this study consisted of an online survey with 11 personal descriptive questions covering gender, job type, working time in NICU and recent, relevant training.	Confidence in the practice of KC was significantly lower in clinicians who spent <75% in direct care of babies and who had not received training in PCNC, KC, PT	Lack of sufficient numbers of trained clinicians, insufficient education and lack of clear protocols have been identified in our study	Our study confirms findings of others in the US, (Engler et al. 2001), Australia, (Chia et al. 2006) and Iran (Valizadeh et al. 2013) that indicate nurses are keen to implement KC. Incorporating interdisciplinary and multidisciplinary team approaches to education would augment the implementation of KC and PT into everyday practice.

Study	Purposes	Subjects	Design/methods study	Result	Barrier KMC	Conclusions
Health care professionals' perspectives on the requirements facilitating the roll-out of kangaroo mother care in South Africa Update, Shivaleela P	The objective was to explore and describe the perspectives of health professionals, who were involved in the roll-out, of the requirements for rolling-out KMC as a best practice in South Africa.	Twelve health professionals from various South African healthcare levels, involved in the implementation and the rolling-out process of kangaroo mother care.	Twelve semi-structured individual interviews conducted in 2012 with health professionals from various South African healthcare levels, involved in the implementation and the rolling-out process of KMC.	personal alignment and protocol/policy alignment with the best practice; a roll-out plan; leadership; and supporting and reinforcing structures	four requirements for rolling-out KMC which were congruent with the four benefit levels identified by Edwards and Grinspun (2011) (alignment, plan for roll-out, leadership for change, and supporting and reinforcing structures).	Although specific requirements, such as personal alignment and reinforcing structures can be used in the roll-out of best practices, further research is desirable to promote a fuller understanding of how to devise and apply the requirements in the wider adoption of best practices in South African health care settings.
Given the benefits of Kangaroo Mother, why be so slow? Kerstin Hedberg Nyqvist Ass. Prof. em	To answer the question why has the uptake of KMC as a routine practice been so slow?	low-birthweight infants who received skin-to-skin Kangaroo mother care (KMC) from their mothers immediately after birth and infants who received conventional postnatal care	Publications were scanned to answer the question of why uptake of KMC as a routine practice been so slow.	Common obstacles reported by healthcare staff's opinions that KMC does not have any medical effects and is just a lovely experience for parents, ignorance the benefits of KMC	restrictions on the presence of parents and families in the NICU, such as limiting parental visits to one or a few hours instead of offering them opportunities to stay 24/7, and controlled NICU physical environments including privacy.	KMC should be as close to continuous as possible or provided as intermittent skin-to-skin contact. It is hoped that this recommendation will boost both its implementation and further randomized controlled trials of the impact of KMC on infant survival and other outcome variables.

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Study	Purposes	Subjects	Design/methods study	Result	Barrier KMC	Conclusions
Jumping into Kangaroo Care. Karen Speropulos, PT, MPT, PCS	To account the benefits of KC from conception through results and lessons learned of experiences with KC at Niswonger Children's Hospital in Johnson City, Tennessee.	Thirteen hospitals that serve a total of 29 countries in Tennessee, Virginia, Kentucky, and North Carolina. The alliance's integrated health care delivery system includes primary/preventive care centers and numerous outpatient care sites.	A literature review was conducted to provide evidence-based knowledge. PubMed search of the terms "kangaroo care" and "skin-to-skin care." The search was limited to articles written in English in the past five years. It produces a list of 254 articles.	With the number and the wide variety of family members and staff who participated in KC during the week of the kangaroo-a-thon. exposure and experience would increase the likelihood both families and caregivers would revisit KC many times	Barriers to KC in Niswonger's NICU:\Lack of staff knowledge of its benefits, \Lack of sufficient equipment, and insufficient familiarity with the material, \Lack of interest in and knowledge of KC among family members, and \Lack of staff motivation	Many of the barriers to KC identified by our team were among those noted in the literature. Our team's goal was to absorb the literature minutely, but when it came to encouraging care providers to implement KC, we focused on the benefits and the steps needed. Our overarching goal was to change the frequency of skin-to-skin care in our NICU from occasional to an "always event" and standard of care.
Implementing facility-based kangaroo mother care services: lessons from a multi-country study in Africa. Res. 2014;4:293. 25.Kerber, K, etal.	This study aimed to systematically evaluate the implementation status of facility-based KMC services in four African countries: Malawi, Mali, Rwanda, and Uganda.	39 health care facilities in Malawi, Mali, Rwanda, and Uganda	A cross-sectional, mixed-method research design used. Stakeholders provided information at national meetings and in individual interviews.	Across the four countries, 95 percent of health facilities assessed demonstrated some evidence of KMC practice.	Important factors identified are: training and orientation; supportive supervision; integrating KMC into quality improvement; continuity of care; high-level buy	The integration of kangaroo mother care into routine newborn care services should be part of all maternal and newborn care initiatives and packages. Engaging ministries of health and other implementing partners from the outset may promote buy-in and assist with the mobilization of resources for scaling up kangaroo mother care services.

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Study	Purposes	Subjects	Design/methods study	Result	Barrier KMC	Conclusions
Thirty Years of Kangaroo Care Science and Practice Ludington-Hoe, Susan M, RN, CNM, Ph.D., FAAN. Neonatal Network30.5 (Sep/Oct 2011)	to reflect on how Kangaroo Care (KC) has evolved over the last 30 years and to enumerate evidence-based effects and practice changes	The Journal of Neonatal Nursing (NN)	reflect on how Kangaroo Care (KC) has evolved over the last 30 years and to enumerate evidence-based effects and practice changes, and conclude with goals for the next 30 years of KC.	The practice of KC should be shaped so that nine objectives achieved: Educational content on KC at birth and beyond is in every nursing, obstetric, and pediatrics. Routine KC practice is part of a nurses performance review	Nursing adoption of KC in the U.S. is progressing slowly, impeded by the lack of education about KC. Complaints that KC takes too much time. lack of KC policies and protocols	Physiologic and behavioral effects endure during KC but vanish within 5-10 minutes of being separated from the mother for placement in an incubator or not. Developmental and social impacts of KC continue to manifest 1-16 years later

TABLE 2: The factors Influencing Health Practitioners in implementing KMC according to the inclusion articles.

AUTHORS, YEARS	PREDISPOSING						ENABLING			REINFORCING	
	Lack of awareness	Attitude	Belief	Incorrectly perceived	Increase the workload	Lack of training	There are no Standard Operational Procedures (SOP)	Lack of Facilities	The unstable condition of a baby	Policy	Leadership
Anne Marie Bergh et al. (2016)						V	V			V	V
Kymre, Ingjerd G et al. (2014)		V	V					V			
Abdalla, a British Journal of Medicine(2015)	V					V				V	
Chan et al. (2016)				V	V	V	V				
Seidman et al. (2015)			V				V	V		V	
Hilary Moore et al. (2014)	V		V			V	V			V	V
Malhotra et al.(2014)	V		V								
Ambika K1, Nisha P Nair (2013)	V										
Karen D. Hendricks-Muñoz et al. (2013)	V		V								
Wendy Higman (2014)	V		V			V	V				
Upashe, Shivaleela P (2015)											V
Kerstin Hedberg Nyqvist (2016)		V	V	V					V		
Karen Speropulos, PT, MPT, PCS (2015)	V		V					V			
Kerber, K, etal.(2014)						V				V	
Ludington-Hoe etal.(2011)			V			V				V	V
	6	2	9	2	1	7	5	3	1	6	4

4. Discussion

We identified and classified factors influencing nurses in implementing kangaroo care according to the green model: (i) predisposing factors: the attitude of nurses is ambivalent, lack of knowledge and belief (iii) enabling factors: lack of infrastructure, the physiological stability baby, standard operational procedures, and lack of skills, (iii) reinforcing elements: institutional leadership and lack of regulatory / policy.

4.1. Predisposing factors

The attitude of NICU nurses in the practice of KMC is ambivalent. The nurses know the benefits of KMC and want to implement it as often as possible. But ”as often as possible” is a concept that is broad and diverse, and their attitude was ambivalent concerning not always facilitate what they perceived as the optimal conditions. The ambivalent attitude of nurses can be seen with the restrictions they place on the visits by parents and families in the NICU, such as limiting parent visits to one or a few hours, instead of offering them a chance to live, visit the mother is restricted in the NICU, facilities do not meet the needs of older people, including privacy (Gabriel Seidman et al. 2015; Bergh et al. 2016).

Studies conducted by Nyqvist (2016) identify their indifference and even resistance to KMC from health practitioners. Common obstacles faced is the wrong opinion that KMC has no medical effect and just a nice experience for parents (mother), ignorance about the benefits of KMC for the baby and the family, the perception that KMC is an alternative method for the poor (Cong et al. 2013), and increasing the workload and safety risks associated with infant’s health(Gabriel Seidman et al. 2015; Kymre n.d.).In fact, parents who actively supported to participate in the care of their babies, including KMC from the actual birth can ease the workload of nurses (Kymre n.d.)

Inconsistent practices and lack of belief in kangaroo mother care and limited knowledge of such care restricted its uptake among health practitioner. When an infant is born prematurely, the NICU nurses need to be an advocate for both mother and infant. To empower the NICU nurses towards kangaroo care practice improvement, discussing the importance of their advocacy role is necessary. After the NICU nurses can identify his or her role, willingness to change and participate will develop. However, it has proven that optimal kangaroo care implementation rates cannot be met without a standard policy.

4.2. Enabling factors

Research conducted by Moore et al. (2014) identified the factors that affect the implementation of the KMC as the reluctance of management of health care providers to allocate a particular space, the beds were comfortable, and the food and do not rearrange staff schedules to allow the KMC. The lack of standard operating procedures and a shortage of staff, as well as staff change-instead, become an obstacle to the implementation of the KMC or Perawatan Metode Kanguru (PMK). On the other hand, successful implementation of KMC reported having the support of management and good communication among staff.

Concerns healthcare practitioners' instability physiological baby-related loss of temperature and worries babies become stressed due to transfer in and out of the KMC. Condition physiological stability infant should be checked intensively before being given the KMC, a series of tests given time to consume and increases hesitations power to conduct KMC.

Although the implementation of the program conducted comprehensively, KMC practices identified sustainability as a challenge.

4.3. Reinforcing factor

Many studies have shown the positive effects of KMC in infants and families. At all levels of NICU care, KMC should be included as a core component of the standard of care continuity in the NICU. WHO has recommended that the KMC should provide routine care of newborns weighing up to 2000 grams at birth and should begin immediately after the baby is clinically stable.

Research conducted by Bergh et al. (2016) identifies professional resistance and a lack of political priority for newborns and care of low birth weight in the political structure and health at the beginning of KMC introduced to the health facility. When the institutional leadership does not prioritize kangaroo care resulting health practitioners are less motivated to practice or teach PMK to Mother. Although KMC has been included in the global health agenda as one of the critical interventions for the reduction of mortality of newborns, we expect the majority to follow. However, this expectation may not be realized without the support of the country's leadership and a transparent and integrated approach to improve KMC strategies for detailed operational planning and budgeting.

5. Conclusions

Encourage mothers to do kangaroo care method (Perawatan Metode Kanguru/ (PMK) or Kangaroo Mother Care (PMC) requires support from various parties, including from health personnel. Increased PMK is not a natural process, and it takes time to do the service integrated into a newborn care package. Many factors affect the health workers in implementing the KMC: an ambivalent attitude of nurses, lack of knowledge, belief, lack of infrastructure, the physiological stability baby, lack of standard operational procedures, lack of skills, institutional leadership and lack of policy. Three of the top-ranked factors influencing KMC practice for nurses were: belief, lack of system and lack of standard operational procedures (SOP).

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