DOI: https://doi.org/10.11144/Javeriana.umed63-2.kang

Parents under Kangaroo Mother Care Method Reluctant to Commence Hospital Discharge: A Thematic Analysis

Padres canguro renuentes al egreso hospitalario: un análisis temático

Received: 20 october 2021 | Accepted: 08 march 2022

Adriana Montealegre-Pomar[a]
MD. Neonatologist Pediatrician. MSc PhD(c) in Clinical Epidemiology, Pontificia Universidad Javeriana-Hospital Universitario San Ignacio, Bogotá, Colombia
ORCID: https://orcid.org/0000-0001-5464-2701

John Camacho
Electronic Engineer. PhD(c) in Health Informatics, Pontificia Universidad Javeriana, Bogotá, Colombia
ORCID: https://orcid.org/0000-0003-1805-9142

Aura Domínguez Perilla
MD. Rheumatologist Internist. MSc in Clinical Epidemiology, Pontificia Universidad Javeriana, Bogotá, Colombia
ORCID: https://orcid.org/0000-0002-6277-4250

Sandra Milena Puentes-Sánchez
Pharmaceutical Chemist. MSc in Clinical Epidemiology, Pontificia Universidad Javeriana, Bogotá, Colombia
ORCID: https://orcid.org/0000-0002-0802-8345

a **Corresponding author**: montealegre.a@javeriana.edu.co

How to cite: Montealegre-Pomar A, Camacho J, Domínguez Perilla A, Puentes-Sánchez SM. Parents under Kangaroo Mother Care Method reluctant to hospital discharge: a thematic analysis. Univ. Med. 2022;63(2). https://doi.org/10.11144/Javeriana.umed63-2.kang

ABSTRACT

Introduction: Parents of premature or low birth weight babies in Colombia receive training in the Kangaroo Mother Care (KMC) method from the hospital, to empower themselves in the care of their children and achieve an early discharge. If this is not possible, babies will have a higher risk of infections, a longer separation time from parents and higher hospitalization costs. **Objective**: To describe the experiences of kangaroo parents reluctant to be discharged from the hospital in order to identify and modify possible mistakes in the in-hospital KMC adaptation phase. **Method**: Pilot focus group with five kangaroo parents reluctant to graduate. A thematic analysis of the transcription was done. **Results**: Parents experienced feelings of poor empowerment that did not improve with the training provided, based on talks and observation; this, together with the perception of the expertise of health personnel, may lead them to consider staying in the newborn unit for the safety of their babies. At home, repeated and direct exposure to baby care seems to build more confidence. **Conclusions**: Increasing parents' direct exposure to their babies' care before discharge would improve their hospital experience, their confidence, the quality of care they can provide, and allow an early discharge.

Keywords
Kangaroo Mother Care Method; parents; education; patient discharge; infant, premature; infant, low birth weight.

RESUMEN

Introducción: Los padres de bebés prematuros o de bajo peso en Colombia reciben entrenamiento en Método Madre Canguro (MMC)

desde el hospital, para empoderarse en el cuidado de sus hijos y lograr un egreso temprano. Si esto no es posible, los bebés tendrán mayor riesgo de infecciones, mayor tiempo de separación con sus padres y mayores costos de hospitalización. **Objetivo:** Describir las experiencias de padres entrenados en MMC renuentes al egreso, para identificar y modificar errores probables en la adaptación canguro intrahospitalaria. **Método:** Grupo focal piloto con cinco padres renuentes al egreso. Se realizó un análisis temático de la transcripción. **Resultados:** Los padres experimentaron sentimientos de pobre empoderamiento que no mejoraba con el entrenamiento proporcionado, basado en charlas y observación; esto, unido a la percepción de la experticia del personal de salud, puede hacer que consideren la posibilidad de permanecer en la unidad neonatal por la seguridad de sus bebés. En casa, la exposición directa y repetida en el cuidado de los bebés genera mayor confianza. **Conclusiones:** Aumentar la exposición directa de los padres al cuidado de sus bebés antes del egreso, mejoraría su experiencia en el hospital, su confianza y la calidad del cuidado que pueden proporcionar, lo que permitiría un egreso temprano.

Palabras clave
Método Madre-Canguro; padres; educación; alta del paciente; recién nacido prematuro; recién nacido de bajo peso.

Introduction

The birth of a premature or low birth weight (LBW) child can generate feelings of anguish, disappointment and anger in parents that can lead to depression (1,2). This psychological burden causes emotional separation leading to bonding problems and even abandonment (3). In neonatal intensive care units (NCUs), several interventions have been proposed to overcome this issue, such as favoring the empowerment of parents in the care of their babies (1,4), providing families with complete and timely information (5), and allowing 24/7 NCU visits to reduce physical and emotional separation (6–8).

In Colombia, there is an intervention called the Kangaroo Mother Care (KMC) method that promote those strategies. This intervention was developed in 1978 at the Maternal and Child Hospital of Bogota to deal with overcrowded NCUs and the risk of infections associated with long hospital stays (9). In the KMC method, the newborn is held by the mother under her clothing in an upright position, called the Kangaroo Position (KP), instead of being placed in an incubator. In addition, the infant is dressed only in a diaper and bonnet (10), generating a direct skin-to-skin contact between mother and child that allows the baby to thermoregulate.

From the moment of birth, mother and baby dyad go through a phase of adaptation in which exclusive breastfeeding is encouraged as much as possible, as is training in the KP for as long as possible. This phase is deemed completed once the newborn has gained weight 15–20 g/kg/d for three consecutive days, has stable vital signs, has solved problems requiring hospitalization, is able to eat by coordinating sucking, swallowing, and breathing, and parents are empowered to perform infant care at home. After acquiring these skills, the newborn is discharged from the NCU, and mother and baby are scheduled for close ambulatory monitoring at the ambulatory KMC program; this is the third component of the KMC method (11). As a result of these strategies, the KMC method has proven to be a cost-effective, easy to implement intervention that promotes breastfeeding and bonding and helps to reduce neonatal morbimortality associated with complications such as infections (12–14).

Parents who can adapt to the KMC method accept discharge from the hospital. Nevertheless, each month, between 5 and 10% of these parents are reluctant to be discharged, claiming that they do not feel ready to take on the care of the baby at home. Rejection of early discharge leads to a higher risk of infections, a longer separation time from parents, higher hospitalization costs and lower bed availability in the NCU for other newborns.

The main objective of this study is to explore the reasons why parents involved in the in-hospital KMC method refuse to have their preterm or LBW babies discharged from the hospital. We also seek to propose a theory about the components of this phenomenon, in order to identify interventions that help to improve parents' experiences and allow them to provide adequate and autonomous care at home for their babies.

Methods

Study design

Qualitative phenomenological pilot study based on the thematic analysis of a focus group with an intentional sample of parents trained in the KMC method who had refused hospital discharge of their babies as proposed by the medical team.

Starting position

We start from the reflection that the aspects that influence parents' refusal to discharge their babies from the hospital are mainly anxiety, conflictive relationships with the health care team, problems in accessing information on their children's health status, lack of family help at home and financial issues to attend subsequent outpatient follow-up visits in the ambulatory KMC program.

Location & recruiting

This study was conducted with parents who attended at the Hospital Universitario San Ignacio (HUSI), a third-level institution in Bogota, Colombia, that has 30 NCU beds.

The HUSI NCU started the KMC method in 2001 and, since 2006, has 24/7 parental access. Currently, this NCU is considered a center of excellence in the KMC method (15). Between October and November 2015, an intentional sample of four mothers who rejected the hospital discharge of their babies was contacted. All of them accepted to be part of the focus group. In addition, one of the mothers' husbands was accepted for recruitment, resulting in a total of five participants.

Data collection

Three researchers conducted the focus group, and one of them was in charge of the logistical aspects. The interview questions were formulated on the basis of the authors' self-reflection on possible aspects that could explain parents' refusal of their children's hospital discharge. The focus group was held on the same day that parents attended a follow-up visit at the KMC ambulatory program for their convenience. Meetings were audio recorded and transcribed verbatim. Transcripts were analyzed along with audio recording to ensure accuracy.

Analysis

The analysis comprised two cycles. During the first cycle, transcripts were coded individually by each of the authors using Atlas.ti version 7. After two consecutive meetings, a fused coding system was developed by consensus, which included 64 codes grouped into 16-word families.

Through the second cycle, transcribed data was reviewed to extract topics that best established common reasons among parents for refusing discharge. This was accomplished by comparing the content of coding families across participants. When conflicting perceptions were detected, individual participant characteristics or the content of other coding families were used to explain differences. During this process, associations between the topics were established in order to explain aspects influencing parental refusal of hospital discharge.

Ethical aspects

This study was conducted in accordance with national and international standards for research in human beings (16) and with the canons of Good Clinical Practice in Colombia, Resolution 8430 of 1993 (17). Parents were advised about study objectives and were asked to participate by signing an informed consent form. The ethics and research committee of Pontificia Universidad Javeriana and the HUSI approved the protocol and the informed consent (Act 2014/137).

Results

The focus group lasted for a mean of two hours. Table 1 summarizes the participants' characteristics.

Table 1
Participants' characteristics

Participant	Age	Marital status	Obstetrics	Gestational age (PMA[a]) and weight at birth	Hospitalization length[b]	Time between discharge and focus group[b]
Mother 1	21	Single	Twin pregnancy First pregnancy Caesarean section	30 weeks 1300 g and 1190 g	45	5
Mother 2	34	Stable union	In vitro fertilization First pregnancy after trying for 10 years Caesarean section	32 weeks 1700 g	9	28
Mother 3	39	Stable union with Father 1	Placental insufficiency First pregnancy Caesarean section	38 weeks 1780 g	8	7

Table 1 Continued

Mother 4	20	Stable union	Preeclampsia First pregnancy Caesarean section	33 weeks 1920 g	8	22
Father 1	35	Stable union with mother 3		38 weeks 1780 g	8	7

[a]Postmenstrual age.
[b]Number of days that the infant stayed at the hospital.

Parents' experience

Reasons for rejecting hospital discharge were grouped in the following 5 themes: low self-efficacy, family support, health care team perceived as the only one trained for care, observation-based learning, and hands-on experience and empowerment. Table 2 presents the configuration and sample citations of the themes that appeared from the analysis.

Table 2
Theme structure and sample quotes

Theme/Selected codes	Sample Quotes
Low self-efficacy	
Helplessness	"They discharged him, and I was like: Oh no! … What do I do now? … It's better that they stay here… I also said the same thing. They should stay here as long as it takes."
Feeling judged	"I think that the social aspect is difficult… For instance, my sister says '[…] my baby was born at 36 weeks, my baby was huge' and I felt traumatized." "With her I always felt that she was born before time because I got sick from preeclampsia, and said it was my fault that she was born prematurely, that she was born tiny because of me, and that everything that had happened to her was my fault, then if she was sick it was because of me."
Family support	
Receiving support at home	"My mother and sister are the ones who have helped me carry him so I could rest, because you get very tired." "Oh! my sister, […] my sister is everything. She's always there whenever I need her … seriously."
Negotiating KMC at home	"I fought with my mom because she didn't hold the [baby's] little head as I wanted and [as] they had instructed me. I said, 'Mom that's not right, wait!' And she said, 'I have raised [a child] before!' And I said, 'Yes, but not one this tiny!'"
Isolating themselves	"I'm locked in a room. I don't go out! The one going in and out is my husband. It is all for the sake of having her in a sterile environment, which is what they recommend."

Table 2 Continued

Health care team perceived as the only trained for care	
Feeling supported by the health personnel	"My child also had problems sucking, but now she doesn't let go; and, yes, I received counseling and the nurses helped me a lot with that."
Comparing themselves with the nurses	"I felt that I was not capable of changing her, while they came here and changed her perfectly without any problems. They sat down, took her by the neck, fed her with the syringe, and she takes it all in. They put her to sleep and she sleeps […]. I thought… I can't do all that. I prefer to have her here."
Observation-based learning	
Training and reality	"I watched them and thought, oh that's good, cool! I'll take her home, piece of cake […]." "They tell you 'you are doing it wrong'. Then, they take the baby from you, handle her, and then tell you you 'this is the way mom'. But you do not learn that way. Sure, you take in some things, but watching and doing… [are different things]."
Expectations about training	"I would rather have had less theory and more practice, more 'Do it, do it yourself', because they take him, bathe him, and change him." "Maybe it's a question of spending a day or two on your own so they evaluate how you are doing. If it's a matter of oxygen, or if it's a matter of breastfeeding. Just until now the nurse told me I was holding her wrong when I feed her."

Table 2 Continued

Hands-on experience and empowerment	
Exposure to care	"[…] because my baby doesn't suck well… I mean, she has the grip, but she doesn't… She doesn't latch onto my nipple… She won't take it… So, in that sense I feel like, like, like my hands are full."
Self-efficacy and success	"[…] Taking care of them every day, being with them daily; being with them and practicing. I can now deal with the tiny nose and sash. It's already been 30 days. The day-by-day makes you feel more confident. Now I know how to handle her, how to carry her. I change her, I give her sun baths… but that comes with practice […]."

Low self-efficacy

Four out of the five parents stated feeling incompetent to care for their children when physicians were deciding hospital discharge. Two out of the four mothers and the father expressed their fear of making an error and seriously injuring their children.

All parents stated that they experienced strong feelings associated with having a newborn that is seen as different. This perception seemed to be related with feelings of guilt and shame.

Family support

In contrast with the authors' reflexivity, two of the four mothers reported receiving strong support from their families at home. In the case of one of the mothers, the family's recommendations contradicted those given by the health care team. Two of the four mothers indicated that they tried to remain isolated to prevent their children from becoming infected. In turn, one of the participants stated that social interaction with other family members made her feel judged, which could be related to the decision to isolate herself.

Health care team perceived as the only one trained for care

Three of the four mothers stated having received solid assistance from health staff at the NCU and felt thankful for the aid and guidance received. Moreover, one of the four mothers reported that support from health staff gave her a sense of safety and calmness. In addition, in the transcription, parents repeatedly commented that they felt very limited in caring for their babies compared to the care provided by nurses.

Observation-based learning

Regarding the adaptation phase in the NCU, according to the KMC method protocol (18), parents commented that the training they received consisted mostly in observation of the handling and care of their children by the nurses and educational talks. In their opinion, this strategy is not enough to prepare them for home care. To the question "how do you think this training process could be improved?", participants replied that it could be improved by having a greater hands-on experience. In other words, they would have preferred to take care of their child during the adaptation phase while receiving feedback from the health care team.

Hands-on experience and empowerment

Our results showed that participants who had been at home the longest since hospital discharge, at the time of the focus group (mothers 2 and 4; 28 and 22 days, respectively), recognized time and daily practice as contributors to improving their perception of empowerment. As days passed, participants said that they felt increasingly autonomous in caring for their children. On the other hand, parents who had been at home for less time since discharge at the time of the focus group (mothers 1 and 3; 5 and 7 days, respectively), indicated they felt insufficiently prepared to handle their children.

Discussion

Early discharge rejection by kangaroo parents remains a problem in Colombian NCUs that leads to longer separation time, higher risk of infections, higher hospitalization costs, and lower bed availability in the NCU for other newborns.

Therefore, we conducted a pilot study to know the reasons of this rejection in a third-level hospital.

Our results suggest that some factors that provoke emotional reactions of stress and depression affect parental learning during the phase of in-hospital adaptation to the KMC method. The main aspects to consider were high-risk gestation, being first-time parents, and feelings alluding to prematurity or LBW identified as something not normal and unexpected. Other investigations have found similar results. For example, Ballantyne et al. (2) found high levels of stress and depression in a multicenter, cross-sectional study of premature infants' mothers hospitalized in Canadian NCUs. Cherry et al. (19) showed that approximately sixty-six percent of mothers of babies hospitalized in the neonatal intensive care unit (NICU), mostly preterm, had postpartum depression requiring consultation with the mental health service. In a qualitative study using semi structured interviews conducted in mothers of preterm infants during the first 72 h of life, Gonçalves et al. (20) found that 56% of mothers reported that separation from their babies caused them a lot of pain, worry, and/or guilt. Furthermore, in the group of mothers of very preterm infants (< 32 weeks), 86% revealed feeling fear, with 48% of them reporting that the birth of their children produced emotions of shock and anxiety that were simultaneously paralyzing and ravaging. Based on these reports, we believe that emotional distress may cause parents to entrust the care of their child to health personnel, thereby increasing separation between parents and newborns.

In the study by Lewis et al. (21), most mothers stated that they feared for their children's health, considering the infant's size and ability to breathe; such perception influenced their empowerment as primary caregivers for their children, to the extent that they feared that common activities, such as skin-to-skin contact or diaper changing, could cause harm on their babies. That is a clear evidence that parental stress is a barrier to adaptation to KMC method.

In a review by Boykova, in 2016 (22), she gathers evidence of a delayed ownership of the parental role and identity in mothers of preterm infants. It is possible that this phenomenon could be related to the decision of delegating the baby's care to health staff found in our study. Moreover, separation imposed by hospitalization, infant's appearance, and limited responses to parental stimulation, as well as lack of bonding, may conduct to reduced parental self-confidence and perceptions of being a substitute parent.

While a preterm baby is hospitalized in the NICU, parents usually feel powerless and helpless, a situation that might increase stress levels and a lower tolerance towards emotional difficulties than parents of at-term babies. Parents experience a state of psychological and physical separation from their children, and this separation is increased by the NICU environment, where healthcare team assumes responsibility for these fragile children; this situation often generates even more discomfort and worry in these parents, as shown in our results and other studies (23,24). For this reason, it is important to promote a culturally sensitive care practice, psychological support, and a physical environment that facilitates parent-infant closeness in the NICU, for example with interventions such as early and prolonged skin-to-skin contact (kangaroo position), establishing family-centered care, 24/7 newborn units, and in-hospital family rooms (3,25–28).

The KMC method practiced in the majority of Colombian NCUs encourages physical and emotional nearness by giving parents the opportunity to carry and feed their infant as a family-centered care part (18); however, in some kangaroo parents, this goal is not achieved in a timely manner, due to problems during in-hospital adaptation, which leads to unnecessary prolonged hospital stays and readmissions.

The hypotheses: Rejection process and subsequent gain in confidence

Based on our observations, we propose the following process leading to rejection of hospital

discharge and subsequent gain in confidence, as stated in Figure 1.

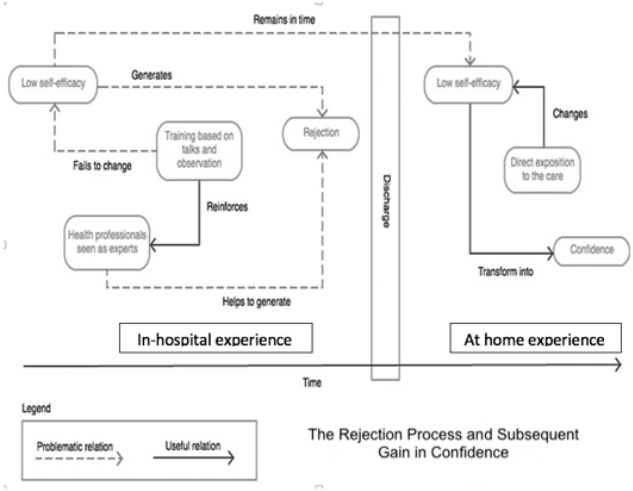

Figure 1
The rejection process and subsequent gain in confidence
Own elaboration.

According to our findings, parents of premature or LBW babies have low autonomy in the in-hospital care of their newborn(s). The instructions they get, based on observation, fail to empower them in the care of their babies and makes them think that only the medical team is able to do so and, therefore, that it is better for their babies to remain hospitalized. This concept persists despite the medical team telling parents that their baby is fit for discharge and warning them about the risks of prolonged hospitalization and the benefits of continuing the KMC method at home. We believe that these reasons and emotional stress may explain the parents' refusal to be discharged.

In spite of refusing to leave the hospital, the baby is finally discharged, and parents must take over the care of their child at home. Direct contact with their son and day-to-day experience of caring for the baby at home gradually empower them and generate self-confidence.

Our data suggest that there were no problems for the study participants with family support at home. Three of the four mothers had a stable partner who was supportive, and the single mother reported that she had sufficient help from her sister. Analysis of the data showed that refusal to be discharged from hospital is related to other factors. However, to test this hypothesis, expectations concerning family or network support before discharge would need to be explored, and our study only collected information after discharge.

Regarding social interactions, our results indicated that parents participating in the study had a tendency towards isolation sourcing from two main origins: (a) Fear that their children would be exposed to harmful infectious agents, and (b) feel exposed to the opinion from others, probably because of the perception that their babies are not normal. Sankey and Brennan analyzed the topic of the premature baby seen as "different" by their parents, and showed how this concept supports the belief that, given their fragility, these babies can only be well cared by the medical team (29). The aforementioned aspects may possibly be a barrier that prevents parents from accepting emotional support and achieving the skills to adapt to the KMC method.

Direct and continuous exposure to infant care over time is a key determinant of empowerment. In the focus group, mothers who had spent more than three weeks with the baby at home after hospital discharge, claimed to be more secure and confident in caring for their newborn(s) and associated this confidence with daily exposure to the routines necessary to adopt KP, feeding, diapering, and bathing the baby. Previous studies by Sankey and Brennan (29), de Souza et al. (30), Oswalt et al. (31), and Peyrovi et al. (32) indicate how becoming accustomed to having a premature infant, as well as the acquisition of the ability to care for the infant, progress gradually.

In addition to promoting physical and emotional closeness, another objective of the KMC method is to prepare parents to be able to care for their children at home by themselves (33). The results of our study suggest that autonomy could be achieved more easily by changing the pedagogical strategy; the participants of this focus group pointed out that training received in the NCU, based on observations of care provided by the health

care team, was not sufficient. With this type of strategy, the healthcare team is seen more as a provider of knowledge than a facilitator of care. When participants were asked what could be improved in the in-hospital adaptation phase to the KMC method, three of the four mothers proposed changing the teaching method to allow for more practice-based learning, e.g., being allowed to care for their babies themselves while monitored by nurses. There is evidence from Latin American studies highlighting the importance of parental support for infant care during hospitalization in the NCU. In a study involving 24 kangaroo mothers from Brazil, de Souza et al. (30) noted that the inclusion of the family in the NICU care of the infant was essential for adequate post-discharge adjustment. Similar results are found in the study by Granero-Molina et al. (34). These authors conclude that mothers of extremely preterm infants gain greater confidence in their abilities and are better prepared to bring their infant home when they receive information, supervision, and are allowed to participate in the care of their infant in the NICU.

In a review by Bowles et al. (35), again, it is emphasized that early awareness of parents in their role as primary care providers for their babies is required; this is achieved by receiving comprehensive training by the health team and with strategies such as having family rooms in the NCU, allowing active communication with the medical staff even during daily rounds, and, finally, achieving coordination with an outpatient support network.

The thematic analysis obtained through this pilot focus group and the evidence found highlight the importance of using more practical pedagogical approaches to achieve adaptation to the KMC method. Parents should be allowed to care for their babies from the first days of hospitalization in the NCU with the supervision of health staff. This strategy reduces their stress, facilitates bonding, encourages autonomy, and better prepares them to discharge.

The most recognized KMC protocol in Colombia, developed by the Kangaroo Foundation, has a checklist in which parents must be trained in various skills, such as the breastfeeding technique, KP, and oxygen management, if required (33). However, this protocol is not clear about the pedagogical strategy that the health team should use. There is great variability in the way nurses and doctors teach parents; some tend to be more practical and others do not, so it is necessary to include specific recommendations on training that allows parents to quickly acquire skills. These strategies could help empower parents develop individualized discharge plans that acknowledge and address the concerns of the mother, education of the health staff, specially nurses, on how to adopt their role as facilitators rather than performing the care by themselves, and teaching practical methods that increase parents' empowerment and understanding of their babies' needs (36–39).

Although this pilot study was conducted seven years ago, the emotional and training problems faced by parents of hospitalized preterm infants are still the same. This is the experience lived in a NCU that has been a pioneer in KMC and, today, is a model in the in-hospital KMC method in Colombia. There are no similar studies in our country that explore the phenomenon of preterm parents' refusal to be discharged from the hospital. We wish to emphasize the importance of parents' training in babies' care from the NCU, a situation that is achieved with a newborn unit open to parents 24/7 and a hands-on teaching from nurses and doctors; these strategies allow parents to be the primary providers of their children's care for an early and effective hospital discharge.

Limitations of this study include the small number of participants, and the fact that it is a pilot study, which needs verification with other focus groups. Consequently, the results and assumptions should be interpreted with caution. As stated before, future studies should include a control group to allow comparisons between parents who reject and those who accept hospital discharge.

Conclusions

- The findings of this study allowed us to develop a hypothesis on the rejection process to hospital discharge and subsequent gain in confidence by parents of preterm or LBW babies. In our hypothesis, some parents reject being discharged from the hospital; later, in this group, those who have been discharged longer, and therefore have spent more time caring for their babies at home, seem to gain more confidence than parents whose babies have recently left the hospital. This fact would support the need for increased exposure to care during the adaptation phase referred by the focus group participants. It is necessary evidence of the validity of this hypothesis in future studies, comparing parents reluctant and not reluctant to being discharged.
- Having a greater parents' hands-on experience to care before discharge with an open NCU 24/7s, would improve their self-confidence and overall experience with the KMC method.
- Other strategies that could help in parents' empowerment and family-centered care are teaching methods for NCU staff, especially nurses, about how to adopt their role as parents' facilitators instead of performing the care by themselves and plans of individualized discharge preparation to acknowledge and address parents' concerns.

Funding

The authors did not receive specific funding for this work.

Conflict of interests

None declared.

Acknowledgments

The authors thank Dr. Ximena Alvira, MD, PhD, for providing editorial support in accordance with Good Publication Practice (GPP3) guidelines (h ttps://www.ismpp.org/gpp3).

References

1. Rossel C. K, Carreño T, Maldonado ME. Afectividad en madres de niños prematuros hospitalizados: un mundo desconocido. Rev Chil Pediatr. 2002 Jan;73(1):15–21. https://doi.org/10.4067/S0370-41062002000100004

2. Ballantyne M, Benzies KM, Trute B. Depressive symptoms among immigrant and Canadian born mothers of preterm infants at neonatal intensive care discharge: a cross sectional study. BMC Pregnancy Childbirth. 2013 Jan;13 Suppl 1(Suppl 1):S11. https://doi.org/10.1186/1471-2393-13-S1-S11

3. Flacking RR, Lehtonen L, Thomson G, Axelin A, Ahlqvist S, Moran VH, et al. Closeness and separation in neonatal intensive care. Acta Paediatr. 2012 Oct;101(10):1032–7. https://doi.org/10.1111/j.1651-2227.2012.02787.x

4. Gonya J, Martin E, McClead R, Nelin L, Shepherd E. Empowerment programme for parents of extremely premature infants significantly reduced length of stay and readmission rates. Acta Paediatr. 2014 Jul;103(7):723-31. https://doi.org/10.1111/apa.12669

5. Peyrovi H, Mosayebi Z, Mohammad-Doost F, Chehrzad M-M, Mehran A. The effect of empowerment program on "perceived readiness for discharge" of mothers of premature infants. J Matern Neonatal Med. 2016;29(5):752–7. https://doi.org/10.3109/14767058.2015.1017461

6. Gallegos-Martínez J, Reyes-Hernández J, Silvan-Scochi CG. La unidad neonatal y la participación de los padres en el cuidado del prematuro. Perinatol Reprod Hum [Internet]. 2010;24(2):98–108. Available from: https://www.medigrap

hic.com/cgi-bin/new/resumen.cgi?IDARTICULO=26093

7. Wataker H, Meberg A, Nestaas E. Neonatal family care for 24 hours per day: effects on maternal confidence and breast-feeding. J Perinat Neonatal Nurs. 2012;26(4):336–42. https://doi.org/10.1097/JPN.0b013e31826d928b

8. Liu CH, Chao YH, Huang CM, Wei FC, Chien LY. Effectiveness of applying empowerment strategies when establishing a support group for parents of preterm infants. J Clin Nurs. 2010;19:1729–37. https://doi.org/10.1111/j.1365-2702.2009.03082.x

9. Martínez H, Rey E, Navarrete L, Marquette C. Programa Madre Canguro en el Instituto Materno Infantil de Bogotá. Primer Encuentro Internacional del Programa Madre Canguro. Bogotá: UNICEF; 1990.

10. Charpak N, Ruiz-Peláez JG, Zupan J, Cattaneo A, Figueroa Z, Tessier R, et al. Kangaroo Mother Care: 25 years after. Acta Pædiatra. 2005 Jan;94(5):514–22. https://doi.org/10.1111/j.1651-2227.2005.tb01930.x

11. Charpak N, Ruiz-Peláez JG, Figueroa de C Z, Charpak Y. A randomized, controlled trial of kangaroo mother care: results of follow-up at 1 year of corrected age. Pediatrics. 2001;108(5):1072–9. https://doi.org/10.1542/peds.108.5.1072

12. Charpak N, Ruiz-Peláez JG, Figueroa de C Z, Charpak Y. Kangaroo mother versus traditional care for newborn infants </=2000 grams: a randomized, controlled trial. Pediatrics. 1997;100(4):682–8. https://doi.org/10.1542/peds.100.4.682

13. Charpak N, Ruiz-Pelaez JG, Figueroa Z. Influence of feeding patterns and other factors on early somatic growth of healthy, preterm infants in home-based kangaroo mother care: a cohort study. J Pediatr Gastroenterol Nutr. 2005;41(4):430–7. https://doi.org/10.1097/01.mpg.0000177310.86909.52

14. Lawn JE, Mwansa-Kambafwile J, Horta BL, Barros FC, Cousens S. "Kangaroo mother care" to prevent neonatal deaths due to preterm birth complications. Int J Epidemiol. 2010 Apr;39 Suppl 1(suppl. 1):i144-54.

15. Método Madre Canguro, experiencia exitosa en atención en salud a la primera infancia [Internet]. Available from: https://www.minsalud.gov.co/salud/Paginas/Primera-infancia-reconocimiento-experiencias-exitosas-materno-infantil.aspx

16. World Medical Association. World medical association declaration of Helsinki. 2001;79.

17. Ministerio de Salud de Colombia. Resolución 8430 de 1993, por la cual se establecen las normas científicas, técnicas y administrativas para la investigación en salud [Internet]. Disponible en: https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF.

18. Charpak N, Villegas J. Actualización de los lineamientos técnicos para la implementación de Programas Madre Canguro en Colombia, con énfasis en la nutrición del neonato prematuro o de bajo peso al nacer [Internet]. Ministry of Health and Social Protection of Colombia. Bogotá, Colombia; 2017. Available from: https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/implementacion-programa-canguro.pdf

19. Cherry AS, Blucker RT, Thornberry TS, Hetherington C, McCaffree MA, Gillaspy SR, et al.

Postpartum depression screening in the Neonatal Intensive Care Unit: program development, implementation, and lessons learned. J Multidiscip Healthc. 2016;9:59–67. https://doi.org/10.2147/JMDH.S91559

20. Gonçalves JL, Fuertes M, Alves MJ, Antunes S, Almeida AR, Casimiro R, et al. Maternal pre and perinatal experiences with their full-term, preterm and very preterm newborns. BMC Pregnancy Childbirth. 2020;20(1):1–16.

21. Lewis TP, Andrews KG, Shenberger E, Betancourt TS, Fink G, Pereira S, et al. Caregiving can be costly: a qualitative study of barriers and facilitators to conducting kangaroo mother care in a US tertiary hospital neonatal intensive care unit. BMC Pregnancy Childbirth. 2019;19(1):1–12. https://doi.org/10.1186/s12884-019-2363-y

22. Boykova M. Transition from hospital to home in parents of preterm infants. J Perinat Neonatal Nurs. 2016;30(4):327–48.

23. Ionio C, Colombo C, Brazzoduro V, Mascheroni E, Confalonieri E, Castoldi F, et al. Mothers and fathers in NICU: the impact of preterm birth on parental distress. Eur J Psychol. 2016;12(4):604–21. https://doi.org/10.5964/ejop.v12i4.1093

24. Raines DA, Brustad J. Parent's confidence as a caregiver. Adv Neonatal Care. 2012;12(3):183–8.

25. Bry A, Wigert H. Psychosocial support for parents of extremely preterm infants in neonatal intensive care: a qualitative interview study. BMC Psychol. 2019;7(1):1–12. https://doi.org/10.1186/s40359-019-0354-4

26. Weber A, Harrison TM. Reducing toxic stress in the neonatal intensive care unit to improve infant outcomes. Nurs Outlook. 2019;67(2):169–89. https://doi.org/10.1016/j.outlook.2018.11.00

27. De Bernardo G, Svelto M, Giordano M, Sordino D, Riccitelli M. Supporting parents in taking care of their infants admitted to a neonatal intensive care unit: A prospective cohort pilot study. Ital J Pediatr. 2017;43(1):1–11. https://doi.org/10.1186/s13052-017-0352-1

28. Raiskila S, Axelin A, Toome L, Caballero S, Tandberg BS, Montirosso R, et al. Parents' presence and parent–infant closeness in 11 neonatal intensive care units in six European countries vary between and within the countries. Acta Paediatr Int J Paediatr. 2017;106(6):878–88. https://doi.org/10.1111/apa.13798

29. Sankey JJ, Brennan S. Living with difference: caring for a premature baby at home. Collegian. 2001 Apr;8(2):10–8.

30. de Souza NL, Pinheiro-Fernandes AC, Clara-Costa IDC, Cruz-Enders B, de Carvalho JBL, da Silva MDLC. Domestic maternal experience with preterm newborn children. Rev Salud Publica (Bogota). 2010 Jun;12(3):356–67. https://doi.org/10.1590/S0124-00642010000300002

31. Oswalt KL, Mc Clain D, Melnyk BM. Reducing Anxiety among Children Born Preterm and their Young Mothers. Changes. 2012;29(3):997–1003.

32. Peyrovi H, Mosayebi Z, Mohammad-Doost F, Chehrzad M-M, Mehran A. The effect of empowerment program on "perceived readiness for discharge" of mothers of premature infants. J Matern Fetal Neonatal Med. 2016 Mar;29(5):752–7. https://doi.org/10.3109/14767058.2015.1017461

33. Kangaroo Mother Care Learning Portal [Internet]. Available from: https ://fundacioncanguro.co/KMCT/index. php/en/component/users/?view=regist ration

34. Granero-Molina J, Fernández Medina IM, Fernández-Sola C, Hernández-Padilla JM, Jiménez Lasserrotte M del M, López Rodríguez M del M. Experiences of mothers of extremely preterm infants after hospital discharge. J Pediatr Nurs. 2019 Dec 21;45:1–7.

35. Bowles JD, Jnah AJ, Newberry DM, Hubbard CA, Roberston T. Infants with technology dependence. Adv Neonatal Care. 2016;16(6):424–9.

36. Raines DA. Preparing for NICU discharge: Mothers concerns. Neonatal Netw. 2013;32(6):399–403. https://doi .org/10.1891/0730-0832.32.6.399

37. Gehl MB, Alter CC, Rider N, Gunther LG, Russell RB. Improving the efficiency and effectiveness of parent education in the neonatal intensive care unit. Adv Neonatal Care. 2020;20(1):59–67. https://doi.or g/10.1097/ANC.0000000000000644

38. Toivonen M, Lehtonen L, Ahlqvist-Björkroth S, Axelin A. Key factors supporting implementation of a training program for neonatal family-centered care - A qualitative study. BMC Health Serv Res. 2019;19(1):1–10.

39. Ingram JC, Redshaw M, Manns S, Beasant L, Johnson D, Fleming PJ, et al. "Giving us hope": Parent and neonatal staff views and expectations of a planned family-centred discharge process (Train-to-Home). BMJ Open. 2017;7(1):1–12. https://doi.org/10.111 1/hex.12514