Barriers to Kangaroo Mother Care and 6-months Exclusive Breastfeeding in Lomé, Togo

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Abstract:

International concerns remain high in decreasing infant mortality rates. Kangaroo Mother Care (KMC), a care method which entails skin to skin contact with an infant, and six months exclusive breastfeeding are both highly encouraged in Togo as a way to reduce infant mortality. Both care methods have the potential of increasing the wellbeing of low-birth weight and premature babies. The research conducted aims at identifying and assessing the barriers to KMC and 6 months exclusive breastfeeding at Centre Hospitalier Sylvanus Olympio, a teaching hospital associated with the University of Lome. Interviews were used to collect data. Results suggest that a variety of socioeconomic and sociocultural factors decreases the chances of mothers practicing KMC and breastfeeding exclusively for six months. Most issues limiting the practices of KMC and breastfeeding could be considered beyond the control of mothers and caretakers. However, based on data and anecdotal accounts, there are potential resources and implementations that can specifically increase the practice of 6 months exclusive breastfeeding.

Introduction:

Within the field of neonatal care, exclusive breastfeeding and KMC are both widely accepted as low-cost and highly effective methods which improve infant health outcomes-aligning with WHO best practice guidelines [1]. These methods require little financial investment and are available for practice in both high and low-income countries. Despite their effectiveness in shaping child development, particularly for low-birth weight or premature newborns, care providers at the capital's largest hospital, Centre Hospitalier Universitaire Sylvanus Olympia, observed that mothers within the neonatal intensive care unit did not practice KMC and breastfeeding to the level recommended.

Togo is a small west African country bordering Benin to its east and Ghana to its west with approximately 7 million residents, and soon to be 8 million [3]. Although there has been a significant improvement from 1990 to 2012 on the country's under age 1 mortality rate from 89 to 62

per 1000 live births, there is still much progress to be made [4]. The decrease in infant mortality rate can be attributed to postcolonial economic growth [5]. However, taking into account that the nation's GNI per capita, calculated in purchasing power parity (PPP), was $1,370 in 2016 along with the neonatal mortality rate at 33, cost-effective health initiatives are necessary to decrease the nation's infant and neonatal mortality rates [6]. A literature review of similar studies conducted in other west African countries anticipated barriers for mothers using KMC and exclusive breastfeeding to include: poor doctor-patient communication, conflicts with required daily activities, limited spousal support, and a plethora of other sociocultural or behavioral barriers [7]. Based on extensive communication with the overseer and other staff members of CHU Tokoin's neonatal intensive care unit, the project aimed to evaluate barriers to practicing KMC and exclusively breastfeeding infants for six months with hopes of identifying the possible sociocultural, behavioral or communication-based issues. The objectives of this research could assist in providing a better understanding of what and why the barriers exist. For the hospital staff, identifying specific trends in barriers could aid them in ameliorating their techniques when communicating to mothers about KMC and 6 months exclusive breastfeeding.

Methods:

In order to evaluate the barriers to KMC and exclusive breastfeeding, both mothers and care providers in the NICU were individually interviewed with a questionnaire that addressed their understanding and approach of practicing (if mother) or educating (if caretaker) about KMC and exclusive breastfeeding. Participants were questioned in either Ewe or French, depending on their language of preference. In total 12 interviews were conducted: 9 mothers and 3 hospital personnel. As will be noted in the research limitations section, low participation may have limited researchers' ability to assess a wider range of trends within the responses. The questionnaire for all participants were open-ended allowing both mothers and personnel to expound upon their experience with KMC and breastfeeding. The interviewees were recorded, and their responses were later transcribed by the research team in order to maintain accurate data. Upon transcription, the data was quantified by tracing categorical trends that appeared to impede the practice of KMC and/or breastfeeding (e.g.

financial reasons, c-sections, stress/fatigue, religious reasons, discomfort, hospital infrastructure, household chores, 24/7 kangaroo policy, and patient-doctor miscommunication) in each interview.

Results:

All three care providers recognized miscommunication as an overarching barrier. They noted that although women almost never asked questions about the practice of kangaroo, there was still a disconnect regarding the extent to which mothers actually followed hospital recommendations on practicing KMC. The neonatal institutes a 24/7 policy, essentially urging mothers to keep the infant in kangaroo at all times of the day. However, one consistent trend that posed as a barrier to this policy was the question of whether or not mothers had a proper understanding behind the purpose of kangaroo. Based on the interviews with participants, mothers were capable of explaining the objective of kangaroo care. However, since all mothers perceived kangaroo as a method that aids in child growth, KMC practice was sometimes perceived as a direct correlation to child growth. As observed during the interviews with caretakers and mothers, the perception that KMC equated to child growth derived from the ways in which caretakers explained kangaroo to the patients. During interviews, caretakers articulated that they utilized rudimentary words or phrases, such as "kangaroo will make your child grow" in place of more complex explanations in order to effectively help mothers understand KMC. Two of the three interviewed personnel stated that they described kangaroo in elementary terms to simplify the explanation for mothers who they believed did not receive the education level that would enable the comprehension of a more "complex" explanation to the practice of KMC. However, the responses of mothers and their anecdotal accounts reflected that the oversimplification of KMC sometimes led to a misunderstanding of its purpose. On some occasions, the expression "KMC will make your child grow" was misconstrued by mothers who understood this in literal terms that their infant would physically grow as a product of practicing KMC. Consequently, some mothers became discouraged from practicing the care method if they did not perceive proper child growth within their infant.

Another communication barrier that personnel indicated is that mothers are more likely to confide in one another for advice as opposed to directly communicating with caretakers and asking

them questions. In fact, the caretakers expressed a concern for mothers exchanging knowledge with one another. From their perspective, the advice of mothers seemed to conflict with their patient instructions. This sentiment, as we observed, sometimes created tension between the medical staff and patients.

In addition, two hospital personnel explicitly stressed the unit's 24/7 policy of KMC practice, a policy that is not always adhered to by mothers for various reasons. In many ways, this policy proved to be impractical as women later expressed multiple barriers hindering them from consistent KMC practice. One of these barriers is the expectation for mothers to upkeep the cleanliness of the hospital. Mothers are usually in charge of cleaning the hospital. One mother stated that they are required to wake up around 3 or 4 am to sweep hospital floors. Yet, they are also expected to practice KMC at all hours of the day. Other barriers include women remaining mindful of owed financial hospital charges and their need to purchase medicine for their neonates-- both activities that the staff stressed must be completed while following the 24/7 KMC policy. Two of the three caretakers recognized that stress and fatigue played a role in women's ability to practice Kangaroo. 33% of mothers explained that undergoing a c-section often served as a barrier to practicing KMC because of the physical pain associated with carrying the baby in kangaroo while simultaneously recovering from surgery. 78% of women emphasized that household chores and/or job related opportunities would pose as a barrier to their ability to practice KMC, specifically outside of the hospital. These chores may include hand-washing clothes, cooking, and cleaning the house. Some mothers noted that if a mother has another household member who is willing to carry the child in KMC as chores are completed, then KMC could be practicable outside the hospital.

Discomforts of any kind was a common trend in mothers' ability and/or desire to practice kangaroo. 44% of women stated that they experienced some form of discomfort. From the interviews gathered, a source of discomfort could be attributed to general physical pains. 67% of hospital personnel acknowledged that some mothers suffer from body pains, specifically chest pains, when practicing kangaroo; Though it was unclear how seriously personnel took these claims, 44% of women interviewed discussed their discomforts with the kangaroo fabric. The kangaroo fabric

itself is made from synthetic polyester like fabric-- it does not breathe well and in heat, may result in itchy spells. Another source of discomfort, mentally that is, could be financial burdens. 67% of caretakers recognize that the mental and physical well being of mothers is influenced by their individual financial situations. If for instance, as one personnel noted, a mother did not have a meal since the day before or throughout the entire day she is less likely to practice KMC or even give attention to her newborn.

Overall, when it came to exclusive breastfeeding personnel acknowledged that women understood its importance. Caretakers generally did not have a difficult time encouraging women to breastfeed. The only hindrance as perceived by two caretakers (both of whom were male) was how the role of religion hindered their ability to visually verify whether or not mothers were actually breastfeeding, as religious women (often Muslim women) preferred not to breastfeed in the presence of a male other than their husband. The most prevalent trend amongst mothers, acknowledged by 89% of women, is the recognition that 6 months exclusive breastfeeding is key. Nonetheless, participants' personal anecdotes of other mothers inside and outside the hospital demonstrated that a number of women lacked understanding and/ or disagreed with the notion of breastfeeding exclusively for 6 months. One interviewee shared that she has seen mothers at the hospital give their newborns water. The most commonly held notion behind doing so was the belief that when an infant was thirsty, milk alone simply did not suffice in quenching the thirst. Other barriers to exclusive breastfeeding were commonly centered around mothers leaving for work upon discharge. In addition, the lack of breastfeeding pumps virtually rendered the storage of surplus milk at either the hospital or at home impossible, a clear barrier to practicing exclusive breastfeeding for 6 months.

Discussion:

Though there were many barriers, stress factors and the misunderstanding of kangaroo seemed to be the most prevalent. Generally, women in the hospital were encouraged to practice kangaroo as they believed this would promote their infant's physical growth. However, for mothers who did practice kangaroo and do not see a significant change in their child's growth, they may view

kangaroo as an ineffective method, and are less likely to continue its practice. As personnel expressed that women seldom asked questions and instead confided in one another, this may have also increased the likelihood of women misunderstanding aspects of kangaroo. Our data showed that mothers were able to explain the purpose of kangaroo as told to them by their caretakers. Nonetheless, we were unable to verify how personal opinions about kangaroo may have been influenced by the discussions circulating amongst mothers. The shortage in hospital personnel also renders it difficult, if not impossible, for caretakers to regularly discuss with mothers about the importance of KMC on an individual basis. However, one-on-one discussions could possibly increase the likelihood of eradicating mothers' doubts about KMC. This would of course require an increase of caretakers. In fact, two of the three interviewed personnel stated that they would increase the amount of available caretakers when asked what would they change if they were in charge of CHU Tokoin.

We found that stressful components, whether it is bodily discomforts or financial burdens, affect mothers' mental and physical state, and constitute the majority of barriers to KMC. Women expressed fatigue from hospital chores, medical practice (e.g. c-section), and the interference of household chores after discharge. In addition, a financial burden may heavily influence the overall willingness of a mother to follow her caretaker's advice. Some of these stress factors can be addressed in the hospital setting, others (e.g. household chores and financial burdens) are possibly outside the realm of the hospital's control. Nevertheless, if hospital janitors frequently cleaned the neonatal unit, this could most likely decrease a burden on mothers' physical and/or mental health. It would allow mothers to solely focus on their newborns, limiting their overall stress. Yet, it may also be difficult for CHU Tokoin to implement such an initiative given that it receives very little in government funding. As far as patients with c-sections a policy could be offered to them in order to encourage KMC. For example, a policy that would allow them to have a guest who will assist in carrying the infant in KMC may increase its practice. Generally, the hospital is quite strict with its guest policy. However, mothers who have undergone a c-section should be allowed some leniency concerning the guest policy if KMC is to be encouraged.

Patients were noted to seek care providers' advice regularly for breastfeeding issues, particularly with milk expression and lack of adequate flow. Nonetheless, mainstream misconceptions about exclusive breastfeeding (e.g. giving water as opposed to milk when the baby is exposed to heat) seemed to influence a mother's decision to exclusively breastfeed, according to anecdotal accounts. This may be addressed by having a platform to discuss in detail the reasons behind exclusive breastfeeding. Responses during the interviews reflected that mothers supported exclusive breastfeeding because they were instructed to by personnel, but not necessarily because of an understanding as to why 6 months exclusive breastfeeding is best.

Future plans:

Although many women articulated experiencing more barriers when it came to practicing KMC, these barriers were often outside of the control of mothers, the research team, and the care providers. However, during shadowing and conversations with both physicians and women outside of the formal interview process, difficulties in breastfeeding were identified as a prominent issue. The hospital does have breastfeeding cups, which mothers use by hand expressing milk into it. Additional hospital resources (e.g. breast pumps) were not available to encourage breastfeeding. Overall, resources to aid mothers who had difficulty with milk expression and/or with surplus breastmilk were not available. Development of educational visual tools aimed at common issues related to breastfeeding would be a good combative tool in attempting to ameliorate the understanding of 6 months exclusive breastfeeding. This would be in addition to bringing breastfeeding resources that can increase milk expression. The current evaluation of the feasibility and logistics of developing an educational tool are being discussed with a Togolese professor of pediatric medicine.

Limitations:

An increase in participants would have enabled the team to track fewer, but more impactful trends. However, the team was able to conduct the research in a limited time frame upon receiving authorization to commence research. Consequently, only a few participants were able to be interviewed. As a result, the data illustrates various barriers, particularly barriers that hinder the

practice of KMC.

Personal Growth:

The opportunity to conduct research in Togo was an incredibly transformative experience for the research team. We each had a special connection with Togo, the two undergraduate students having been born in Togo and having family that currently resided there. Nevertheless, the undergraduates had spent most of their life in the United States and because of that, returning to Togo, specifically for research was a new learning experience for them to take on. Each got to improve in their native languages of Ewe, Kotokoli, Bassar, and French while learning about the Togolese culture and making connections for projects in the future.

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