

Collaboration across Borders: Capturing and Maintaining Data on Kangaroo Mother Care in the Dominican Republic

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Abstract

Kangaroo Mother Care (KMC) has been implemented in one Dominican Republic hospital - San Vicente de Paul Hospital in San Francisco de Macoris. KMC teaches continuous skin to skin contact 24 hours a day, exclusive breastfeeding (as much as possible) and follow-up until 40 weeks corrected gestational age. The goal of KMC is to decrease morbidity and mortality in preterm, low birth weight newborns in limited resource settings. United States and Dominican nurses and physicians in a cross cultural partnership planned to conduct a small study to measure the effectiveness of the KMC project. This presentation describes the challenges in implementing the KMC research. Challenges were identified by a collaborative team consisting of Dominican physicians, nurses, nursing students and medical students and an American midwife and nursing students members following review and discussion of the KMC roster, collected data, data collection tools and observation of home visits. Identified challenges included: non-standardized eligibility criteria, interviewing techniques, standardization and quality of data collection and data analysis. Identified challenges were addressed through discussions related to data quality in research and program evaluation, audit of Program Roster, collaborative revision of data collection tools, retraining of the interviewing team, training in data entry, cleaning and analysis using EpiInfo in Spanish. This study was limited due to the short amount of face to face time that was available for team members to observe and collaborate on project improvement methods. Continued training and collaboration is necessary to promote cross cultural understanding of research priorities and promote sustainability for future research efforts. This project sheds light on the challenges that may be faced when conducting cross cultural research. However, collaborative brainstorming, discussion and open-mindedness allows for challenges to be overcome and improvement in research conduction.

Background & Purpose

Kangaroo Mother Care (KMC) is a care intervention for stable, preterm infants in low resource settings without access to sophisticated intensive neonatal care technology. KMC allows the mother to provide:

- Continuous skin to skin contact 24 hours a day
- Exclusive breastfeeding (with higher caloric formula augmentation for early preterm infants <34 weeks as necessary)
- Frequent anthropometric and developmental surveillance until 40 weeks corrected gestational age.

The goal of KMC is to decrease morbidity and mortality in preterm, low birth weight neonates born in resource limited settings.

The WHO Newborn Care Training, which includes KMC, showed decreased neonatal mortality rates from 11.2/1000 births pre-implementation to 6.2/1000 births post implementation.³

KMC significantly reduced neonatal deaths - 88.14 per 1000 live births without Kangaroo Mother Care and 71.43 per 1000 live births following in hospital implementation.⁷

KMC has been implemented in one hospital - San Vicente de Paul Hospital in San Francisco de Macoris, Dominican Republic, with the financial and technical support of USAID and PATH (Program for Appropriate Technology in Health).

In the Dominican Republic,

- 42% of the population lives below the poverty line.²
- 42% of neonatal deaths in the Dominican Republic are related to preterm births.¹⁰



Dominican mothers providing KMC to preterm, low birth weight neonates.



Methods

The data source for the study was the roster of enrolled infant-mother dyads in the Hospital's KMC Roster, previously collected home visit data, data collection tools, and participant observation of home visits. Challenges were jointly identified by the Dominican and American partners, following review of and discussion about the data sources and tools. A training intervention to improve data collection and analysis was designed and piloted during this project.



Dominican-American team discuss data quality & management.



Emory Accelerated Baccalaureate Students discuss data management challenges with Director of KMC Program during social team gathering.

Results

Identified challenges included: non-standardized eligibility criteria, inconsistent interviewing techniques, limited standardization and quality of data collection and data analysis. Identified challenges were addressed through collaborative discussions related to data quality in research and program evaluation, audit of Program Roster, collaborative revision of data collection tools, retraining of the interviewing team and piloting of revised tools and interviewing techniques, training in data entry, cleaning and analysis using EpiInfo in Spanish.



Home visit with mother-infant dyad one year after KMC care initiated.



In-country Director of KMC pilot tests revised data collection tool during home visit.

Conclusion

Project limitations include the abbreviated face to face time that was available for students to observe and collaborate on project improvement methods. Also, research funding to support ongoing training and collaboration is necessary to embed evaluation research into the KMC program. Cross cultural understanding of the challenges encountered in the field is important learning for all members of the partnership. All have agreed sustainability of KMC will be strengthened by ongoing research.

This project sheds light on the challenges that may be faced when conducting cross cultural research. However, the collective good will established by the long term partnership allowed brainstorming, discussion, and open-mindedness to prevail. Ongoing efforts by Emory students and faculty should include ways to support the sustained development of nursing research in this setting.⁸

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