

Essential Coaching for Every Mother Tanzania (ECEM-TZ): Protocol for a Type 1 Hybrid Effectiveness-Implementation Randomized Controlled Trial

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Background

Despite global goals to improve maternal, newborn, and child health outcomes, mortality and morbidity continue to be a concern, particularly during the postnatal period in low- and middle-income countries. While mothers have the responsibility of providing ongoing care for newborns at home, they often receive insufficient newborn care education in Tanzania. Mobile health via text messaging is an ever-growing approach that may address this gap and provide timely education.

Objective

We aim to evaluate a text message intervention called Essential Coaching for Every Mother Tanzania (ECEM-TZ) to improve maternal access to essential newborn care education during the immediate 6-week postnatal period.

Methods

ECEM-TZ consists of standardized text messages from birth to 6 weeks post partum that provide evidence-based information on caring for their newborn and recognizing danger signs. Messages were developed and then reviewed by Tanzanian mothers and nurse midwives before implementation. A hybrid type 1 randomized controlled trial will compare ECEM-TZ to standard care among mothers (n=124) recruited from 2 hospitals in Dar es Salaam. The effectiveness outcomes include newborn care knowledge, maternal self-efficacy, breastfeeding self-efficacy, maternal mental health, attendance at the 6-week

postnatal checkup, and newborn morbidity and mortality. The implementation outcomes include the reach and quality of implementation of the ECEM-TZ intervention.

Results

Recruitment for this study occurred between June 13, 2024, and July 22, 2024. A total of 143 participants were recruited, 71 in the control and 72 in the intervention. The 6-week follow-up data collection began on July 30, 2024, and was completed on September 21, 2024.

Conclusions

This study will generate evidence about the effectiveness of implementing text messaging during the early postnatal period and the feasibility of doing so in 2 hospitals in Dar es Salaam. The intervention has been designed in collaboration with mothers and nurse midwives in Tanzania.

Trial Registration

ClinicalTrials.gov [NCT05362305](https://clinicaltrials.gov/study/NCT05362305); <https://clinicaltrials.gov/study/NCT05362305>

International Registered Report Identifier (IRRID)

DERR1-10.2196/63454

Keywords: mobile health, maternal health, randomized controlled trial, parenting self-efficacy, self-efficacy, maternal, RCT, mother, text message, coaching, postnatal, newborn, child, low-income country, middle-income country, Africa, newborn care education, nurse midwife, Tanzania

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