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Facilitators and barriers to the adoption of community kangaroo mother care (cKMC) in rural Bangladesh

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Protecting Health, Saving Lives—*Millions at a Time*

Study Partners

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Centre for Sustainable Development and Research
Gopalganj, Bangladesh
Local partner organization

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Bangladeshi Context

60% of under-5 deaths occur during neonatal period[1]

Estimated 30% of infants have LBW[2]

+

71% of deliveries occur at home (77% in rural areas)[1]

Large number of newborns left vulnerable to hypothermia and preventable death

Importance of community-based strategies

Rigorous assessment of effectiveness of community-initiated KMC (cKMC) in reducing mortality is still needed

1. National Institute of Population Research and Training, Mitra and Associates, & ICF International. (2013). *Bangladesh demographic and health survey 2011.*
2. Arifeen, S. E., Mullany, L. C., Shah, R., Mannan, I., Rahman, S. M., Talukder, M. R., . . . Baqui, A. H. (2012). The effect of cord cleansing with chlorhexidine on neonatal mortality in rural bangladesh: A community-based, cluster-randomised trial. *Lancet, 379*(9820), 1022-1028.

Formative research objectives

1. Understand how newborns and infants are cared for (birth-2 months), special emphasis on thermal protection

1. Understand roles family members, community members, and healthcare providers play in delivery and care of neonates, including who has authority and decision-making power

1. Identify and assess the level of importance of potential barriers and facilitators to KMC practice in the community (cKMC)

1. Elicit recommendations or potential solutions to challenges that may occur during implementation of a cKMC intervention package

Methods

- CHWs canvassed study area to identify master list of all eligible individuals
- Participants purposively sampled from list until thematic saturation reached
- Field guides comprised 3 parts:
  1. Exploration of birthing and newborn & infant care practices
  2. Demonstration of cKMC (pictures, doll demo, or video)
  3. Elicitation of feedback, concerns, & suggestion regarding cKMC
- Data analyzed using the framework approach, assisted by Atlas.ti

Study sample

Participant type	# of IDIs	# of FGDs
Category 1: Mothers		
Pregnant (3rd trimester) or Recently delivered women (RDW) (delivered within 2 months)	12	5
Category 2: Family Members		
Maternal grandmothers (RDWs' mothers)	2	2
Paternal grandmothers (RDWs' mothers-in-law)	2	2
Husbands	5	2
Category 3: Community Members		
Traditional birth attendants (*dhoroni, sahajjokari ma*)	2	3
Village doctors/pharmacy men	2	~
Traditional healers (*kobiraj*)	3	~
Religious leaders (*huzur*)	2	~
Formal health sector workers (Family Welfare Volunteer, Skilled Birth Attendant/Family Welfare Assistant, Health Assistant, Delivery Ward Ayah, 2 Nurses, 2 Medical Doctors	8	~
Community leaders (Union Chairman, Female Representative Member)	2	~
Total	40	14

Overview of findings

Factors most likely to influence cKMC promotion and acceptance

Level	Factor
Community and Cultural Level	Thermal protection of neonates culturally valued
	Local understanding of illness etiologies
	Existing infant care practices
	Resistance to an unfamiliar practice
	Atur tradition
	Community support
Household Level	Decision-making dynamics
	Heavy household work burden
	Family support for newborn care and household work
Individual Level	Perceived susceptibility and severity
	Outcome expectations
	Observational learning
	Physical discomfort and perceived health risks

Community and Cultural Level

- Thermal protection of neonate culturally valued
- Local understandings of illness etiologies
  - Overheating → fever and diarrhea
  - Sweat sitting on chest → pneumonia
- Existing newborn care practices
  - Preference for laying baby on bed
  - Supplemental foods more common for small babies
  - Nappies/diapers not used
  - Dress of RDWs conducive to KP

"In such a [hot] season, [KMC is] quite impractical…I always kept my children under the fan, so they don't sweat and catch cold from their sweat." (Mother)

"If the baby has a nutrition problem [referring to LBW], no one will want to keep it like this [in kangaroo position]. They want to give more nutritious food for good growing than KMC." (Mother)

"Elder people say, if you always hold the baby, the baby does not stay well. Getting body heat, the baby won't grow properly. If the baby lies down then they grow quickly and stay healthy." (Mother)

Community and Cultural Level (continued)

- Resistance to performing a behavior unfamiliar in the community (fear of ridicule)
- Observance of *atur* traditions
  - Opportunity for cKMC during *choto atur*
- Community support
  - TBAs
  - Neighbors

"If my husband permits it, then I may keep the baby like this. But since I haven't seen anyone keeping the baby like this, I am a little skeptical…If I do it for the first time then people may make fun of me and call me names. So if I see someone do it then I can also do it." (Mother)

Household Level

- Decision-making dynamics
  - Young mothers lack autonomy and decision-making power
  - Buy-in of husbands and mothers-in-law crucial
- Heavy household work burden
  - Aversion to providing STS while working
  - Neglecting duties could lead to strife or violence in home
  - Providing kangaroo care viewed as a “luxury”
- Family support
  - Kangaroo care more feasible if woman delivers in her own natal home

“You see, we are poor people and have to work hard to make our ends meet. So doing such a method is almost a luxury for us, leaving aside all the work...”
(Husband of RDW)

“No one might object openly, but some people have sisters-in-law or mothers-in-law who may not approve of this method”…“Yes, there are some in-laws who do not care what happens to the baby. They just want the household work to get done.” (Mothers)

Individual Level

- Perceived susceptibility and severity
  - More willingness to provide kangaroo care to obviously “sick” newborns rather than “well” newborns, even if they are of LBW
- Outcome expectations
  - Less crying
  - Protection from dust, germs, and malevolent winds
  - Ease of breastfeeding, granted adequate lactation
- Observational learning
  - Perceived efficacy of cKMC will increase once early adopters show positive outcomes
  - Viewing others practicing kangaroo care in their community is crucial

Individual Level (continued)

- Physical discomfort and perceived health risks
  - Feared breathing problems, cord infection, aches and pains
  - Particularly difficult for adolescent mothers or primiparas
  - Holding neonate to chest is perceived to increase pain, many do not even hold their babies during breastfeeding early on
  - Aversion to sleeping in KP

> *"Young mothers cannot keep the baby like this. The grandmothers can. Young mothers are very weak after delivery and they cannot keep the baby like this. They suffer a lot with the first baby but with the next babies this problem is reduced. A young mother would need to sleep and rest and during this time they may drop the baby in this method."* (New mother)

Trial recommendations

1. Establish KMC in facilities
2. Trial of improved practices (TIPs)
3. Kangaroo care promoted broadly in community by CHWs and formal health care providers
    1. Especially to pregnant women and their families
    2. Encourage universal practice during *choto atur*
4. Engage influential community members (traditional healers, TBAs, village doctors)
5. Promotional messages on television
6. CHWs assist pregnant and RDWs in developing a plan for conducting kangaroo care and identifying those who can help
7. CHWs assist in identifying LBW babies, make necessary referrals
8. Encourage observational learning from early adopters

Conclusions

- Cultural value of keeping newborns warm bodes well for the introduction of a low-technology intervention to achieve this objective in the community, however:
- Establishing supportive home and community environments will be critical for successful adoption– training on the method and its benefits are not enough
- Universal provision regardless of birth weight will be especially challenging
- Further emphasis should be placed on ensuring adequate community-level birth weight assessments

Thank you

For more information:

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