

# Opportunities and Challenges for Family Integrated Care in Resource-Limited Settings

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## Preface

### What is a “resource-limited setting”?

- No “one-size-fits-all” definition
- Often a low- or middle-income country
- Fragile health system with limited critical care capabilities

### Our Lens for Understanding Family Integrated Care (FICare) Opportunities & Challenges in Resource-Limited Settings

- Pilot trial to test the acceptability & feasibility of FICare in the Special Care Nursery at Jinja Regional Referral Hospital in Jinja, Uganda
  - Interviews of mothers and staff
  - Pre-post cohort study (50 babies per group)



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# Why would FICare be different in resource-limited settings?

## Adapted Goals of FICare in Resource-Limited Setting

### Family Integrated Care Website

“The goal of FICare is to facilitate a partnership and collaboration between parents and the NICU staff, to promote parent-infant interactions, and to build parent confidence.”

These goals were reflected in our interviews of Ugandan mothers and staff

#### Mother

“you will start being confident & know that whatever you are measuring is right”

#### Healthcare Worker

“there will be mother-to-child bonding, increased breast milk, so she is getting all those benefits because of the way you’re communicating”

*BUT there is an additional goal that may be of higher priority in resource-limited settings...*

## Adapted Goals of FICare in Resource-Limited Setting

### The additional goal results from healthcare worker shortages:

- The World Health Organization (WHO) recommends 3 nurses/midwives for every 1,000 people
- In 2018, 60% of the least developed countries failed to meet the WHO standard
  - In Uganda, there are 6 nurses/midwives for every 10,000 people
- Healthcare worker shortages lead to poorer quality of hospital care

*How do healthcare worker shortages influence how mothers and healthcare workers understand the goals of FICare?*

## Adapted Goals of FICare in Resource-Limited Setting

- One of the dominant themes that emerged from interviews was that FICare could be used to reduce the workload of healthcare workers
  - When mothers assume some of the nursing responsibilities, healthcare workers can better prioritize care

*Mother*























“when I learn [FICare], I will not disturb the doctors so much”




*Healthcare Worker*

“we are working in an environment where the staffing is low. So the mothers will help us see the things we wouldn't have seen”

# How can FICare reduce staff workload and improve the quality of care in resource-limited settings?

## FICare to Improve Quality of Care

	Day	Day	Day
Weight 	 	 	 
Feeding 			
Temperature 	  	  	  
Breathing 			
Energy Level 			
Convulsions 			
Belly Button 			

	Day	Day	Day
Breastfeed 			
Tube feed 			
Cup feed 			

## FICare to Improve the Quality of Care

Mothers were audited 2-4 days after initiation of intervention:

### Percentage of mothers who could correctly:

Measure their baby's weight: 87%

Track their baby's feeding: 96%

Assess their baby's temperature using the sticker: 98%

Assess for difficulty breathing: 98%

Assess if their baby is weak: 98%

Assess for convulsions: 98%

Assess for belly button infection (omphalitis): 98%

## FICare to Improve the Quality of Care

How do mothers compare to nurses in their ability to weigh their babies daily?

	FICare (Mothers)	Standard care (Nurses)	p value
Percentage of hospitalized days that baby was weighed, mean (SD)	64.2% (+/- 4.1)	33.1% (+/- 5.6)	p<0.0001

# FICare in resource-limited settings sounds great! But, is that the complete story?

## Potential Barriers to FICare

### Who will teach the parents (and the staff)?

- We had 2 research nurses who spent 30-60 minutes per mother
- Average nurse-to-patient ratio is 10:1 and staff often rotate

### Can parents learn FICare?

#### (Do healthcare workers believe parents can learn FICare?)

- In our cohort, 40% had completed only primary school & an additional 51% had completed secondary school, but this may not be true in other places
- Although 90% of Ugandan females age 15-24 can read, healthcare workers (and mothers) remain skeptical that mothers can learn FICare

*Mother*

“you might find another mother whose brain does not pick up as fast”

*Healthcare Worker*

“remember we are dealing with an illiterate society”

# Let's put it all together

## FICare in Resource-Limited Settings

- ❑ FICare may offer a revolutionary intervention to improve the quality of care in hospitals in resource-limited settings by offloading some of the work to parents
  - ❖ FICare needs to be adapted to the local needs and wants
- ❑ Mothers are more capable than we often think!
  - ❖ Building trust between healthcare workers and mothers is key
- ❑ FICare is a resource-intensive intervention at the beginning and is likely the biggest barrier to implementation in resource-limited settings.
  - ❖ Utilizing peer-to-peer education ("champions") may mitigate the start-up cost and should be studied.

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