Family Centred Care (FCC): A Social Collaboration to Improve Neonatal Health

Arti Maria
MD DM Neonatology
Prof & Head
Department of Neonatology
Dr. RML Hospital and PGIMER, New Delhi
Family Centered Care (FCC)

- **FCC: At a Glance**
Family Centered Newborn Care in India

Concept Genesis (2007)
Overcoming HR constraint in NICU: Engaging Parent in Care

Evidence Generation (RCT 2010-2013)
Capacity building of accompanying parent attendant of a sick neonate for delivery of care & effect on neonatal outcomes

Outcomes
1. Feasible & Safe
2. ↑ Breast feeding
3. ↓ Hospital stay
4. No ↑ in Infection
To generate evidence for improved neonatal outcomes in NICU setting of a tertiary care referral neonatal system by capacity building & empowerment of parent-attendants accompanying their sick neonates. Hypothesis: Translating and adapting principles of family centered care to deliver partial care would decrease nosocomial infection rate (NIR) in a tertiary level referral neonatal ICU by 50%.

Methods and Results

Important Observations

Parent & Attendant Characteristics

- Relation to baby: Majority (57%) were fathers, 20% were grandfathers, 20% were babysisters, 20% were babysisters.
- Gender: More than half (51%) were males.
- Literacy: Most were literate (97%) were primiparous, 54% were married, 54% were graduates.
- Age: 20-25 yrs, 41% were <5 yrs old, 13% were 30-40 yrs old, 5% were <5 yrs old.
- Average time spent bedside by attendant: 14 hours/24 hours.

Mean weight & gest in cases & controls.

- Cases: 2308 ± 67 vs 2376 ± 62 (p<0.05).
- Controls: 36.8 ± 3.2 vs 38.6 ± 3.1 (p<0.05).

Training Process: Module Preparation, Implementation and Q&A

Module: An interactive audio-visual demonstration training tool in local language.

- Objective: To capacity build, train, educate, aware & empower parent, attending their sick baby in NICU, in believing domain, whilst ensuring compliance with NICU infection control policies.

Module Preparation: Technical input from experts was given for effective communication & comprehension training.

- A simple training tool was prepared over a 2-month period.
- Part 1: Introductory overview.
- Part 2: Familiarization with hospital.
- Part 3: Role-playing in different scenarios.
- Part 4: Handing over baby for discharge.

Distribution

- 2500 flyers were distributed.
- 1000 attendants were enrolled.
- 80% of cases attended major NICU.

Discussion

Substantial baby-sitter rate results to increase in nosocomial infections.

- There were concerns regarding lack of NUR with parent-attendant involvement in neonatal care.

- This is a first PCC to study impact of parent empowerment on HAI in a tertiary level NICU.

- Few studies have evaluated impact of better centered care (CC) on fewer outcomes.

- In this study significant difference in newborns discharged was noticed in patients with CC versus conventional care.

- Better outcomes have been shown with enhanced CC programs (e.g., CC programs, improved monitoring of patients, better infection control policies, etc.)

- This study demonstrates the significant impact of CC on reducing nosocomial infections in NICU setting.

Conclusion

- Translating and adapting principles of family centered care to an operational & culturally sensitive module which empowers sick infants to better outcomes. Structured education is a significant factor in reducing nosocomial infections in neonatal care.

- This intervention is feasible & may have implications for overcoming manpower constraints in delivery of neonatal care.
Translation in Public Health 2014- till date

Map showing proposed sites in India:
- Rajasthan (33 Districts)
- Madhya Pradesh (51 Districts)
- Bihar (Nalanda)
- Orissa (30 Districts)
- Andhra Pradesh

Proposed Site
1. Audio Visual (AV) Modules

**Session - 1**
- Sensitisation to FCC
- Preparation for entry into the Nursery
- Handwashing
- Gowning
- Familiarising with environment of Nursery

**Session - 2**
- Developmentally Supportive care
- Cleaning a soiled baby
- Breast feeding
- Expression of Breast Milk
- Paladai feeding/Katori feeding
- When to alert the provider?

**Session - 3**
**कंगारू मातृ सुरक्षा**
Kangaroo Mother Care

**Session - 4**
- Preparation for Discharge & care at home
- Handwashing/Prevention of infection/hygiene
- Sponging/cleaning
- Appropriate Clothing/Thermal care
- Exclusive breast feeding & KMC
- Care of cord & eye
- Danger signs & seeking medical help
- Follow up & compliance with discharge instructions
- Immunisation
Family Centered Care at Newborn Care Units: Guidelines for planning & implementation
Skill building process

- Induction at Admission (Sensitisation to FCC)
- Primary Care Provider Identified
- Daily Trainings Scheduled
- Skills imparted through demonstrations and practice
Skill building process contd......

- Supervised Learning
- Peer To Peer Learning
- Independent Doing
- Discharge Counseling
Attributes & Indicators of Implementation: Feasibility

Parent-Attendant profile

- 3-20% >50 years
- 23-61% males (father, grandfather, uncles)
- 8-20% grandparents
- 65-70% mothers
- 22-25% illiterate
- 110% received the training
- Average time spent bedside by attendant was 14.7 (± 1.1) hours/day
<table>
<thead>
<tr>
<th>S. No.</th>
<th>Care Provider</th>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>For Nurse-Doctor</td>
<td>% of Nurse-Doctor who ever received sensitization to FCC</td>
<td>June’16: 76.9% (39) Dec’16: 50% (42)</td>
</tr>
<tr>
<td>4</td>
<td>For Nurse-Doctor</td>
<td>% of sensitized Nurse-Doctor who ever participated in conducting training sessions</td>
<td>16.6% (30) 42.8% (21)</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>% of daily training session held</td>
<td>59.5% (84) 77.4% (93)</td>
</tr>
</tbody>
</table>
Involvement of Parent-Attendants in Processes of Care (June'16- December 16)

- ALoS (Days): 17.98
- KMC Hrs (Avg): 1.65
- % of Breast milk usage: 42.68%
- Cleaning of a soiled baby: 78.35%
- Positioning: 69.39%
- Nesting: 67.11%
A Qualitative Study* using In–depth interviews

Summary findings:

1. Positive attitudes toward FCC
2. Knowledge of essential newborn care giving practices among both parents and service providers.
3. Continuation of delivering essential newborn care by family beyond hospitalization.

*An Independent Research Team of University Research Co India Pvt Ltd
ISN’T IT APPEALING?...

– Low cost
– Seemingly simple
– May supplement HR constraint
– Seems to have benefits for all stakeholders involved

IS IT THAT SIMPLE?
IS IT FEASIBLE?
Challenges in Implementation
Challenges w.r.t. health care providers

• To accept parent-attendant as a co-partner in care delivery!

• Feeling of diminished authority!

• Uneasiness because of being constantly watched!

• Tendency for task shifting to mothers beyond the prescribed scope of activities!!

• They are expected to deliver a standard of care that an empowered parent now is aware of and expects from him !!!
• Mother is already sold to the concept
• Selling the concept to doc/ nurse !!
• Much easier to define what mother is expected to do and she will do.
• Much harder is to expect the doctor not to task shift
Getting on board health care provider is the most important

• A module for health care provider
• What he should and what he shouldn’t do;
• Need of initial sensitisation and training of entire heath care team (Nurses, doctors, other staff).
• Monitoring must include parameters to assess nurses performance of tasks.
• Adverse events and Hospital acquired infections must be watched.
To Conclude:

- Translating and adapting principles of Family Centred Care to capacity build the families for essential care giving skills through the captive period of hospitalisation of their sick neonate is feasible and acceptable.

- Health care providers have a pivotal role to play.

- The enhanced competencies and empowerment of mothers to provide continuum of care at home entrusts them with Social accountability for health of their infant

- Family Centered Care is a promising model of a Social Collaboration that is likely to have generational impact on neonatal health.
Family Centered Care for Sick Newborn: video links

- FCC: Parents’ experiences- https://youtu.be/BVaikd1nFaQ
- Scaling up of FCC across the communities- https://youtu.be/28OrApCzE0U
- Resource material:
  - Session 1- Nursery Entry Protocol- https://youtu.be/S2_nvcDSkIY
  - Session 2- Developmental supportive care- https://youtu.be/ALoGXC6-RQk
  - Session 3- Kangaroo mother care- https://youtu.be/kKjNbYJ-R9w
  - Session 4- Care after discharge at home - https://youtu.be/Hbd14bq1iy8
# Requirements for FCC: A Checklist

## I. Facility Checklist:
### A. Facility layout checklist (to be filled after observation)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Observational Points</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Mothers Sleeping/ Retiring Area.</td>
</tr>
<tr>
<td>2</td>
<td>Provision of bathing/toilet facilities.</td>
</tr>
<tr>
<td>3</td>
<td>Provisions for food/diet for mothers</td>
</tr>
</tbody>
</table>
| 4     | KMC room  
|       | 1. With KMC Chairs |
|       | 2. IEC material displayed. |
|       | 3. Front Open Gowns. |
| 5     | EBM/Breast feeding room with privacy  
|       | 1. IEC material displayed. |
|       | 2. Refrigerator for storing expressed milk. |
|       | 4. Boilers and utensils. |
|       | 5. A sink nearby for hand-wash / washing utensils. |
|       | 6. Availability of Breast Pumps (optional) |
| 6     | At entry of Newborn Unit: Logo and Posters of FCC displayed |

## II. At Nursery Entry Area:
### I. Lockers for mothers where they can keep their valuables or accessories before entry.
### II. A nail cutter
### III. Chappal changing area with adequate supplies of chappals
### IV. Handwash / scrub area
### V. Drum with sterile wipes and a cheekles forcep or a hand dryer
### VI. Black dustbin for disposing wipes
### VII. Gowns in a drum for mothers.
### VIII. Hand wash area exhibited with the posters on handwashing (steps and importance), gowing etc.

## III. FCC training session room (it can be adjoining the unit or with in the unit outside the SNCU area)
### 1. TV with USB port
### 2. Adequate number of chairs
### 3. A warmer / table for skill demonstration with  
| Mannikin |
| Sheets for making nesting |
| Consumables like Diaper, Cotton, paper, waste bag etc. |

## IV. In SNCU:
### I. Bedside chairs for mothers.
### At exit point: there should be  
### I. Hangers for gown
### II. Hooks nailed on the wall
### C. To monitor Family Friendly practices

<table>
<thead>
<tr>
<th>Attitude</th>
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<tbody>
<tr>
<td>1. Practice of Counseling session at admission with the standard template</td>
<td></td>
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<tr>
<td>2. Practice of Counseling session at discharge</td>
<td></td>
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<tr>
<td>3. Practice of Daily appraisal sessions</td>
<td></td>
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</tbody>
</table>

### D. Orientation/Sensitization of the staff

(i) Training Sessions held for SNCU staffs Y/N

(ii) Human Resource

<table>
<thead>
<tr>
<th>Staff category</th>
<th>Total number</th>
<th>Trained in FBNC (No.)</th>
<th>Trained in FCC (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors</td>
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<tr>
<td>Staff Nurses</td>
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<tr>
<td>ANM</td>
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<tr>
<td>Any other staff (e.g.: Counselors; KMC Educators)</td>
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</table>
**FCC: Monitoring tool**

<table>
<thead>
<tr>
<th>Baby of</th>
<th>CR Number:</th>
<th>Gender</th>
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<tbody>
<tr>
<td>FCC Eligibility:</td>
<td>Date of birth</td>
<td>Birth weight</td>
</tr>
<tr>
<td>Date of admission</td>
<td>Time of admission</td>
<td>Admission Weight</td>
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<tr>
<td>Primary care provider</td>
<td>Phone no</td>
<td>Age</td>
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<td>2.</td>
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<tr>
<td>Mother eligible (if Y/N)*</td>
<td>INDUCTION CONDUCTED ON</td>
<td>KMC eligible (if Y/N)**</td>
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<tr>
<th>Session 1 (Date):</th>
<th>Session 2 (Date):</th>
<th>Session 3 (Date):</th>
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<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Nesting (Yes/No)</th>
<th>Positioning (Yes/No)</th>
<th>Cleaning Of Soiled Baby (Y/N)</th>
<th>Feeding 0=NPO 1=FORMULA 2=PARTIAL EBM 3=FULL EBM</th>
<th>Mode of feeding 0=TUBE FEED 1=KS FEED 2=DBF</th>
<th>Time Spent With Baby (Should Be Asked From Mother)</th>
<th>If Eligible No. Of Hours Of KMC Given (If Yes) If No - Reason</th>
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# Nursing Monitoring Sheet

**Department of Neonatology**  
PGIMER & DR. RAM MANOHAR LOHIA HOSPITAL NEW DELHI

<table>
<thead>
<tr>
<th>Name</th>
<th>Sex</th>
<th>Hospital Id No.</th>
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<tr>
<th>Date</th>
<th>DOB</th>
<th>Birth Weight</th>
<th>Today's Wt.</th>
<th>Yesterday's Wt.</th>
<th>Gain/Loss</th>
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<tr>
<th>Time</th>
<th>temp</th>
<th>HR</th>
<th>RR</th>
<th>SPO2</th>
<th>CFT</th>
<th>BP</th>
<th>AG</th>
<th>V/NG</th>
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<th>INPUT</th>
<th>OUTPUT</th>
<th>TREATMENT</th>
<th>REMARK</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>IV</td>
<td>NNS</td>
<td>EBDA (ml)</td>
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<tr>
<td>Probe site</td>
<td>IV site</td>
<td>Mode</td>
<td></td>
</tr>
<tr>
<td>LINE 1</td>
<td>LINE 2</td>
<td>NNS</td>
<td>OG/KS/DBF</td>
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</tbody>
</table>

- Daily Appraisal: Y/N/ND
- KMC Eligible: Y/N
- KMC session viewed: Y/N

- Sponging (M/N/D):
- Nasal (M/N/D):
- Positioning (M/N/D):
- Cleaning (M/N/D): KMC (time in hours):

- Note: Fill in the form with the relevant data for each time slot.