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ORIGINAL RESEARCH

Implementation of Family Centered Care for Neonates Admitted in a Special Care Baby Unit in Sierra Leone

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Purpose: To assess the feasibility of implementing family centered care and the impact this would have on parental satisfaction in a special care baby unit in Sierra Leone.

Patients and Methods: A cross-sectional, mixed methods study was conducted at the Rokupa Government Hospital, Sierra Leone. 16 nursing staff of the Special Care Baby Unit and 7 caregivers of neonates admitted in the unit participated in the study. Quantitative data on feasibility was obtained from nursing staff using a five-point Likert scale administered to staff before and after implementation of family centered care in the unit. Qualitative data on perception of impact was obtained through focus group discussions for caregivers whose neonates had received family centered care and a control group who had received standard unit care. Quantitative data was analyzed using univariate analysis and thematic analysis was undertaken for qualitative data.

Results: Before implementation, most nursing staff felt implementation of family centred care was not feasible (87.5%) and more than half of nursing staff either strongly agreed or agreed with each of the negative statements regarding the practice of family centred care indicating a generally negative perception. After implementation there was improvement in nursing staff perception of family centred care, however the majority still doubted the continued feasibility of this practice (68.8%). Qualitative discussions with caregivers demonstrated that caregivers whose babies received family centered care were less distressed and more satisfied during the period of admission than those who received routine care.

Conclusion: Family centered care improved the experiences of caregivers in the unit. Nursing staff also demonstrated a better understanding of the benefits of family centered care after it was implemented. Concerns regarding understaffing and the unit being too small to accommodate caregivers and staff at the same time need to be addressed. There is need to integrate family centered care into hospital policy.

Keywords: family centered care, neonates, nursing care, Sierra Leone

Introduction

Family centered care (FCC) is an approach in planning, delivering and evaluating healthcare based on partnerships between healthcare professionals and the families of patients,[1] it recognizes that there is a need to redirect the focus of clinical care back to the patient and family and not only on the disease.[2] FCC compels health workers to recognize and respect the needs, perspectives and choices of the family and goes beyond simply allowing them into the hospital ward.[3] In pediatrics, clinicians must recognize that the family plays an important role providing support for a sick child. By listening to parents, pediatricians can gain important information that enhances clinical decisions[4] and helps build better and friendlier health systems.[5] Availability of health providers who regularly share information with parents about the child's health condition significantly boosts parental satisfaction and confidence. When clinical updates are not provided by healthcare workers, most parents feel the needs of their children are ignored.[6]

In African healthcare settings there are significant barriers towards the practice of FCC. Some cultures for example forbid male relatives from taking part in the care of a sick child.[7] In Sierra Leone childhood sickness may be attributed to

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witchcraft from family members so parents may feel uncomfortable with visitation from extended family members. There are also barriers within the hospital settings; a study conducted in a tertiary hospital in Ghana described strict visitation policies where mothers of preterm babies were only allowed to see their babies at fixed times during the day.[8] Even when such restrictive policies are not enforced there are still challenges. For example, a study conducted in a hospital where mothers were granted unrestricted access to their babies describes mothers having to sleep out in the open on clothes they spread on the ground at night as the hospital only provided six mattresses for mothers of admitted neonates.[9] This is in sharp contrast to higher income countries like Germany where facilities have an ideal supportive environment for FCC practice with caregivers having full visitation rights as well as having access to a relaxation room and parental classes to support them in caring for their newborns.[10]

Facilities that practice FCC demonstrate benefits including higher discharge weight of infants, shorter length stays in hospital and lower re-admission rates compared to facilities that have not implemented a FCC approach.[11] Despite these benefits, the provision of FCC is inconsistent or lacking in many settings.[12] Sierra Leone for example has no stated policy or institutional guidelines for the implementation and practice of FCC in neonatal units nationwide.

Implementing change goes beyond proposing an effective solution. The solution needs to be developed, tested and adjustments are often required before change can be reinforced into practice.[13] This is particularly important for resource deprived settings to ensure that an overzealousness to improve quality does not lead to failure and wasting of already scarce resources.[14] By carrying out a small test of change in the Rokupa Government Hospital, the author set out to determine if the implementation of FCC would result in improved satisfaction for patients admitted at the Special Care Baby Unit (SCBU) and if the nursing staff would have a favorable perception to its implementation and practice.

While many studies have followed the process of implementing FCC in facilities with no previously stated guidelines or policy regarding FCC practice, very few of these studies have been done in West Africa. West Africa lags behind despite improvements in health outcomes in other regions due to its weak health systems which are often under resourced with severe healthcare staff shortages that affect the delivery of quality care.[15] This study therefore presents a unique opportunity to understand the challenges that FCC implementation may pose in a country where outdated healthcare practices, inadequately trained staff and poorly equipped facilities contribute to cause one of the highest neonatal mortality rates globally.[16] It would also provide useful insight on the feasibility of FCC practice in very low resource settings.

Materials and Methods

Setting and Participants

The Rokupa Government hospital is in the Western Area Urban district, Freetown, Sierra Leone. It serves a population of 27,460 people and provides a full range of comprehensive emergency obstetric and newborn care.[17] The special care baby unit (SCBU) of the hospital provides level 2 care for newborns.[16] It has a six-bed capacity and was established in 2019.

The study population comprised of caregivers of neonates who were admitted at the SCBU of Rokupa Government Hospital and members of the nursing staff assigned to the SCBU of the hospital.

Caregivers whose neonates were projected by the admitting physician as needing to spend at least one week in admission at the unit and who consented to participate in the study were recruited. Caregivers who (a) did not consent to participate, (b) were clinically unstable and unable to provide care for their neonates and (c) had babies who were critically ill and clinically unstable were excluded from the study. Only one caregiver for each neonate who was identified as the primary caregiver was included in the study.

All nurses who worked at the SCBU of the hospital and had worked in the unit for a minimum of six months prior to the study were invited to participate in the study. Notably the hospital does not have any nursing staff dedicated to the SCBU as all the nursing staff in the pediatric department of the hospital rotate randomly across three pediatric wards including the SCBU. This translated to all the sixteen nursing staff in the department being recruited for the study since they all met the inclusion criteria and consented to be a part of the study.

Research Design

An explanatory mixed-methods study combined quantitative surveys with the nursing staff at the SCBU and qualitative focus group discussions with caregivers of neonates that had been admitted at the unit.

Two quantitative surveys were done with the nursing staff; one was done before, and the other was done after the implementation of the FCC approach for selected infants in the unit. Two sets of qualitative focus group discussions were also conducted; one was conducted with caregivers whose neonates had received FCC and the other set of discussions was done with a control group of parents whose babies had received routine unit care.

The PDSA (plan-do-study-act) model was employed to guide the FCC implementation process at the unit and assess the feasibility and potential benefits of incorporating FCC into permanent practice. The PDSA cycle tests for change by; planning to test the change (Plan), carrying out the test of change (Do), observing the effects of the change, learning from the consequences (study) and determining what modifications should be made to the test (Act).[13]

Plan

In this stage the objectives were set in accordance with the PDSA cycle:

1. Identify whether adopting FCC approach in the SCBU would be a feasible and sustainable change.
2. Analyze if FCC would improve parents perceived satisfaction with the care of their infants and their relationship with the nursing staff.
3. Determine perception of nurses to a family centered care approach.

To gauge the receptiveness of nurses to implementing a FCC approach, a descriptive cross-sectional survey with quantitative methods was done.

A structured questionnaire with a five-point Likert scale was used for data collection to gauge the initial perception of each individual staff to FCC before its implementation in the unit. The maximum score for each question was five indicating a very favorable perception while a score of one indicated a poor perception of this approach. A total of sixteen staff participated in this survey.

Do

The American Association of Pediatrics outlined strategies for effective FCC in hospital practice which includes the steps summarized below:

1. Conduct attending physician rounds with the family present.
2. Invite parents and guardians to be present with their child during medical procedures.
3. Share important information with children and families.
4. Encourage and facilitate family-to-family support and networking.

We used the above steps as a guideline in two separate training sessions conducted with the sixteen staff of SCBU who had participated in the initial survey. Training was entirely scenario based; staff were assigned to four different groups and asked to give their responses and reactions to different situations they might encounter in their interaction with caregivers of neonates within the unit. Each group's responses were then critiqued by the other groups to determine if they were in keeping with the steps for successful FCC implementation listed above. Feedback was also given by the author who conducted the training sessions.

In this stage eight neonate whose caregivers met the inclusion criteria earlier stated were also enrolled and randomized: Enrolment was done over a one-month period and all mothers who met the criteria for inclusion over this period were enrolled. Four of the babies were assigned to a control group and received standard care from the nursing staff as per routine unit practice. Four babies in the intervention group received care from staff guided by the

steps above and their caregivers were encouraged and supported to play an active role in their care. This continued until the last baby was discharged from the unit.

Study

The phase commenced after the last neonate was discharged from the unit and was done in two stages.

In the first stage the sixteen healthcare workers who had participated in the initial survey and had undergone the training exercises were given a questionnaire with the same set of questions utilizing the same five-point Likert scale they had completed in the plan stage of the study. Analysis of both the pre and post implementation responses to gauge perception by determining agreement level to both the positive and negative statements in the survey and was done using SPSS and the result displayed on charts.

The second stage was done with the caregivers of babies recruited into the study.

On discharge the contact number of each caregiver was recorded. Following the discharge of the last baby, the caregivers were contacted and invited to a series of focus group discussions (FGDs). One participant belonging to the control group did not respond and was excluded from the study. Therefore, four caregivers from the intervention group and three from the control group were recruited.

A semi structured topic guide containing prompt questions to elicit response was used. The topic guides were developed by the author and validated by an expert in Neonatology with experience working in a facility that practices FCC. Among the questions during the FGD were (a) What did it feel like to know your baby would be admitted at the SCBU; (b) What was it like interacting with the nursing staff while your baby was admitted at the SCBU; (c) Looking back, how would you describe your experience during the time your baby was admitted at the SCBU.

The discussions were held in the country's local language Krio at the hospital premises. A total of six focus group discussions were held, and there were three discussions for each of the two groups, i.e. the intervention and the control group. At this point, saturation was reached, and no new themes emerged.

Qualitative data analysis was done inductively by the author after translating and transcribing the recorded discussions. The process of coding began by reading the transcripts carefully and repeatedly to identify recurrent issues and develop initial codes. To decrease interpretation bias, another researcher who was completely detached from the research process was invited to independently re-read the transcripts and code data. Discussion between both researchers was done to ensure consistency and discuss discrepancies. From the coded data the researcher then formulated the themes for the study. Preliminary findings were shared with six of the participants of the focus group discussion who could be reached through their mobile phones. They were asked to validate whether the findings were an accurate representation of their experiences. No revisions were required after this, and the final themes were adopted.

Act

The results indicated that the majority of the staff perception to family centered care was improved after implementation of FCC in the facility and caregivers also derived benefits from their babies receiving FCC. With this compelling evidence the author intends to present their findings to the hospital board and make recommendations for the incorporation of FCC for all pediatric patients into hospital policy and propose further staff training to ensure staff are skilled and confident in providing FCC.

Ethical Approval

Ethical clearance (Ref No: 019/07/2023) was obtained from the Sierra Leone Ethics and Scientific Review Committee which is the national approved body for seeking ethical clearance for all health-related research involving human participants. As part of the prerequisite to obtain clearance from the committee, written consent to undertake this study was also obtained from the hospital management at Rokupa Government Hospital.

This study was conducted in accordance with the principles of the Declaration of Helsinki, and participants were assured of the confidentiality and anonymity of their responses.

All participants gave written informed consent to participate in the study and to have their anonymized responses published prior to their enrollment.

Results

Characteristics of Respondents

There were two sets of respondents.

The seven primary caregivers recruited for this study were all women and they were the mothers of the admitted neonates. All respondents were between the age of 23 and 38. No first-time mother was recruited, and they each had between 2 and 5 children. Six of the respondents were Muslims and there was only one Christian. Four of the respondents had no formal education and were either engaged in petty trading or were housewives, two had secondary level education and were also engaged in trading while one respondent who had attended university worked in a bank. Only one of the respondents had undergone a C-section delivery, the rest had spontaneous vaginal deliveries.

Among the nursing staff recruited for this study fifteen were females and there was only one male. They had worked in the SCBU between 8 months and three years which is when the unit was established in the hospital. One of the nurses in the study had a BSc in Nursing representing at least four years of study post-secondary education. Four had a diploma in Nursing (RN): 3 years study post-secondary education. Eight had a Certificate in Enrolled Community Health Nursing (SECHN): 2.5 years study post-secondary education and three were Auxiliary nurses (Maternal and Child Health Assistants) with 2 years study post-secondary education. Only seven of the nurses recruited in this study were paid staff, the other nine nurses were volunteers working without salaries.

Quantitative Findings

Figure 1 illustrates nursing perception before the implementation of FCC in the unit. There was a high percentage of agreement towards negative statements regarding FCC. Over 50% of staff strongly agreed or agreed with each of the negative statements. 87.5% of staff (14 of 16 respondents) believed FCC implementation would not be feasible due to limited human resource and structural challenges in the unit. Almost 70% of nursing staff agreed that it was important to involve parents in all aspects of baby's care and over 60% of nursing staff believed that FCC improves bonding and ensures a smooth transition to home care. 38% of staff believed having a parent present during resuscitation would not be beneficial for parents and could cause trauma and increased stress levels.

Figure 2 illustrates the perception of nursing staff after FCC was implemented in the unit. 68.8% of staff still believed that the unit lacked the resources for continued successful FCC implementation. Less than 40% of staff agreed with the two other negative statements regarding FCC suggesting a slightly improved overall perception of FCC among nursing

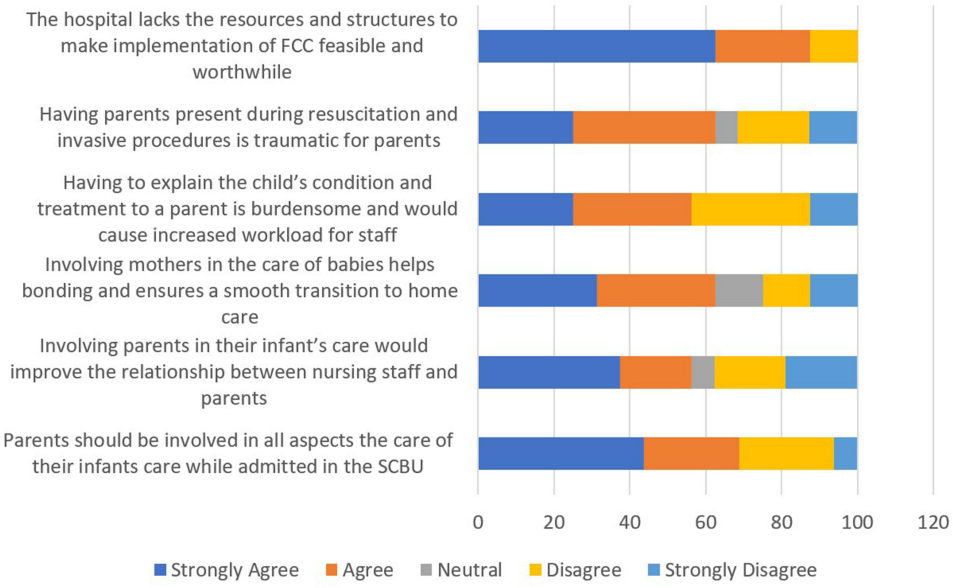

Figure 1 Perception of Nursing staff to FCC before the implementation of FCC in the unit.

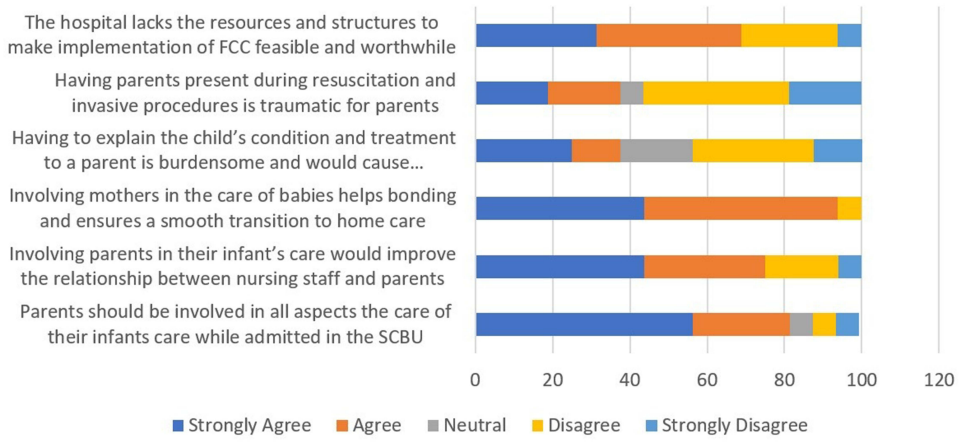

Figure 2 Perception of Nursing staff to FCC after the implementation of FCC in the unit.

staff in the unit. Over 90% of staff felt that FCC would lead to a smoother transition of patients into home care after discharge and over 80% felt it would be necessary to involve parents in all aspect of the baby's care. 75% of staff believed FCC improved the relationship between parents of admitted babies and nursing staff.

Qualitative Findings

The following themes were identified from the analysis of the interview.

Distress of Having a Child in SCBU

Intervention Group

> I could immediately sense that something was wrong when I did not hear my baby cry. The first thing I thought is that my baby was dead, but instead I was told that we had to be admitted at a special ward for babies. I cried but at least my baby was still alive so that made me feel better.

The respondents described vivid feelings of anxiety, depression, guilt and even some relief at being told that their baby would require hospitalization at the SCBU. A respondent who had had complications prior to delivery and had been informed about the possibility of the child spending some time in the unit after birth still had negative reactions to the reality of admission stating that "Nothing prepares you for this".

Though the reaction to being admitted with their neonates at the ward was overwhelmingly negative, the mothers had different outlooks with two stating that they were optimistic their babies would make a full recovery, while two stated that they were fearful and expected the worst.

Control Group

> I felt as if it was my fault, I had taken home a healthy baby and after three days the child had a fever. They told me I had not taken care of the cord. I felt so bad like I had made my baby sick.

The respondents of this group expressed similar feelings of distress at having a child admitted at the unit. The outlook in this group at the time of admission was however overwhelmingly positive with the mother stating that they were convinced their babies would recover and would receive quality care while at the unit.

Coping Strategies

Intervention Group

> As soon as I entered the unit I called my pastor, he gave me a psalm to read. I opened to that page and laid it on my child's cot. I immediately felt so much peace. I knew God was in control.

To cope with the challenges of having a sick neonate, parents had relied on the support of family and friends during the period of admission. All the respondents stated that being visited by relatives who brought food and other gifts had been very helpful in relieving their distress during this time. Religion paid an important role as the respondents all spoke about faith in God and prayers as key to keeping them optimistic that their baby would fully recover.

Control Group

> The nurses told me to believe God and assured me that I will only be in the unit a few days. Their encouragement helped me a lot. I could not eat at first, but my relatives brought food every day and would not leave until I had finished eating.

The parents in the control group also emphasized on the support of friends and family as key to coping through a difficult time. Religion was also a successful coping strategy with one parent stating that she fasted during her four days admission period and would only allow herself to drink water. In addition to religion and relatives they stated that reassurance for healthcare staff was important in helping them cope during the period of admission.

Parent Perceptions About the Attitude of Healthcare Staff at the Unit During Admission

Intervention Group

> The staff are wonderful people. From the moment I entered the ward until when we were discharged, they were all so caring and committed to my baby and I. They told me everything they were doing and took time to ask me how I was feeling. They wanted to know if I had any suggestions, but I did not really have any. I trusted them and was seeing improvements with my baby.

All the parents in this group expressed an overwhelming positive perception of the attitude of the staff in the unit. While they maintained that they trusted the staff and were satisfied with the care their babies received they were also grateful for the clear communications they had received regarding their baby's care which helped put them at ease. They also commented on being repeatedly asked if they had any objections to care commenting that while they were grateful for the thoughtfulness, they felt it was unnecessary as they strongly believe that doctors and nurses always know best.

Control Group

> The nurses in the ward work hard for our children and they are nice people. But sometimes they are so busy that I was hesitant to speak to them or ask them questions. It's not like they were rude to me or ever cut me off, but I felt like by talking to them I would distract them from their work.

The parents expressed complete confidence in the health care providers and were grateful to them. They spoke repeatedly about how hard the staff worked to ensure their baby's received quality care. They were however concerned that the staff were always so busy that they were unapproachable which meant they could not always ask them questions about the care their children were receiving. They however maintained that when they did speak to the staff, they found them to be courteous and supportive.

Parental Experience at the SCBU

Intervention Group

> I won't say I had a nice time because my baby was sick, but I was well taken care of and my baby received the best possible care and for that I am grateful

Overall, the parents were satisfied with the care their babies had received at the SCBU during admission. They stated that they were well supported and educated about caring for their babies during and after admission. One respondent stated that she had had a delayed onset of milk production but was supported and encouraged by the staff and has been able to exclusively breastfeed. All the mothers also stated that they had had unrestricted access to their babies which helped relieve their distress and helped them feel connected to their baby.

One respondent however expressed concern that the nurses expected them to do almost everything for their babies and while she appreciated the time it afforded her with her child, she also felt like the nurses were delegating their own duties on her.

Control Group

> I knew my baby was going to be fine, but I was stressed and worried all through the admission. I just wanted it to be over so I could take my baby home.

Respondents in the control group expressed that they were constantly on edge throughout the period even though they did not blame the staff for these feelings. They expressed satisfaction and gratitude for the care of their babies but did not speak favourably about their overall experience in the unit. They however all affirmed that the period of admission has not impacted their ability to bond with the baby after discharge.

One mother described being asked to leave the room because she was visibly distressed when nurses encountered difficulty in finding her baby's IV line after several attempts.

> I know they did it so I would not be upset, but the moment I left the room I started imagining the very worst things happening to my child. Hearing my child crying from outside the room was hard for me.

Discussion

Parents of babies in both the control and intervention group of this study described feeling distressed and anxious because of their neonate's admission in the SCBU. The admission of a sick child is potentially traumatic for the whole family,[5] however, parents of admitted neonates experience even greater anxiety, depression, and trauma when they are physically separated from their babies.[18] To cope with the stress, the parents in this study had relied on support from family, friends, and their religion. In another study conducted in the US, parents of babies admitted in NICU had used similar coping mechanism; relying on emotional support from loved ones and religion during this difficult time.[19] Another study examining coping strategies of parents with preterm neonates in Greece also found that religion was an important way parents coped with stress during admission.[20] Despite the success of these self-coping strategies Brelsford et al, emphasize the importance of empathy and receiving detailed information about their child's condition from healthcare providers in coping with the stress of having a neonate admitted in the SCBU.[21] This is because receiving clear communication from health practitioners and taking an active part in their infant's care helps parents to maintain a degree of control and calm which helps them cope during a very distressing period.[22,23] This was corroborated by this study which found that parents whose babies had received FCC were less distressed and more satisfied during the period of admission than those in the control group receiving routine care. The additional distress faced by caregivers with restricted access to their neonates was elaborated on by a mother in the control group who described vividly feelings of anxiety when asked to leave the room while nurses tried to secure IV access for her baby. McAlvin et al therefore recommends that patients be allowed into the ward during resuscitation and other invasive procedures, as parents feel less stressed when they are present to support their children. They further suggested that institutional policies ensure that the decision to be present during procedures is not left to the discretion of health staff.[24]

In the initial survey done over half of the nursing staff showed agreement to negative statements regarding FCC and a large percentage of the nurses believed that the hospital did not have the resources to successfully implement FCC. This negative perception remained a concern even after the implementation of FCC and many nurses still agreed with this negative statement. This is not unique to this study as barriers such as staff shortages and limited space can make the implementation of FCC especially difficult in low- and middle-income countries.[25] A similar observation was made in a NICU in India where initial implementation of FCC was met with reluctance by staff who were accustomed to working without consulting with parents and felt this would increase their workload in the unit. Some staff also expressed concern about infection spread if relatives did not follow infection prevention and control (IPC) measures.[26] This would affect the practice FCC in the Sierra Leone context where hospitals not only have poor infrastructure but also have limited access to clean water for handwashing and generally practice poor IPC measures.[27]

A study conducted in a teaching hospital in Amsterdam describes a restructuring to allow for a merging of maternal and neonatal wards to promote FCC and bonding between mothers and babies even when mothers were ill.[28] In another study conducted in Australia and Canada incentives such as transportation reimbursement and free parking spaces were provided for parents whose neonates were admitted at a SCBU. The hospitals under study also provided a lounge and private room and other amenities to parents to ensure a successful FCC implementation.[29] However these measures are capital intensive and may not be feasible in resource limited health care settings like Sierra Leone.

Barriers to successful FCC implementation were highlighted in a study conducted in Ghana where overworked staff who perceived caregivers to be "in their way" were reluctant to provide essential education to mothers and showed such disrespect to caregivers that some caregivers reported that they considered removing their sick infants from the unit.[30] These negative attitudes discourage rapport between caregivers and nursing staff as they are unwilling to initiate discussions with them. This was corroborated by our study as caregivers in the control group expressed concerns regarding the accessibility of the nursing staff who they felt were too busy to address their concerns. Parents of infants in NICU are generally in a subdued position and await signals from healthcare providers to guide their level of participation.[31] Therefore, staff should initiate and maintain open conversations with parents to the extent that parents should feel comfortable discussing with them on a personal level.[32] To reflect this, this study focused on training nursing staff to ensure they were equipped to lead the implementation of FCC care in the unit and guide participation from patients.

This is in contrast with another experimental study conducted in China by Lv et al, where it was the parents who underwent training, so they had the basic skills to ensure they could participation in their neonate's care.[11] While this approach ensures patients are confident and competent enough to participate in the care of their neonates, training parents may inadvertently result in a scenario where the responsibility of care for neonates is transferred to parents rather than the adoption of a more collaborative approach to care with nursing staff.[33] This concern was expressed by a parent in the intervention group in this study who felt that the nurses were neglecting their duties and shifting the responsibility of care to her.

Despite taking a different approach to FCC implementation, this study, and the study by Lv et al, both demonstrate the immense benefit of FCC to neonates and caregivers alike. A study conducted in a Turkish hospital also extensively describes the benefits of FCC implementation including shorter hospital length stay, higher discharge weight and improved maternal bonding for neonates receiving FCC.[34] Similarly, over 90% of nursing staff in this study agreed that FCC implementation improved maternal bonding in the implementation group. This may have contributed towards the improved perception of nursing staff towards FCC after the actual implementation exercise as evidenced by a lower percentage agreement with each of negative statements and higher agreement with the positive statements regarding FCC. Similar findings were seen in a study by Centintas et al, which also determined that education and training of nurses is essential for improving nursing perception to FCC.[35]

This is important as nursing staff hesitation towards practice of FCC due to a preference of established care models where parents take the role of non-participative visitors may derail FCC implementation.[36] Such hesitation precedes most change efforts no matter how positive, timely and necessary the change might be seen to be.[37] Kotter recommends that potential resisters participate in implementing a change to eliminate resistance.[38] Therefore the involvement of nurses in implementation of FCC during this study may help overcome resistance and ensure successful reinforcement into daily practice.

The study was subject to limitations. This study was done in only one of the facilities offering comprehensive neonatal care nationwide and featured a very small number of nursing staff and caregivers as participants. The findings of this study therefore cannot claim to give definitive results on FCC implementation in Sierra Leone. Further, more extensive research is required to properly understand nursing perception towards FCC implementation, barriers to successful FCC implementation and the effect of FCC implementation on parental satisfaction in the Sierra Leone context. The response of nurses and caregivers are also subject to desirability bias since the researcher who administered the questionnaire is a medical doctor, who despite working in another facility may have subconsciously influenced responses.

Conclusion

The findings suggest that there was an improvement in the perception of nurses to FCC approach in the unit after implementation was done. There is also evidence that FCC improved communication between caregivers and staff and result in better overall experiences for the caregivers whose babies received FCC while admitted at the SCBU of Rokupa Hospital. However, the nursing staff remained apprehensive about the feasibility of implementing FCC amid limited human resources and other organizational constraints.

While this study cannot be used as a definitive guide for the implementation of FCC in neonatal facilities, it elaborates on the benefits of the FCC approach despite barriers such as heavy workloads, understaffing and structural constraints that hinder its successful implementation in a resource setting. This suggests that implementation of FCC care approach in neonatal facilities is feasible in the Sierra Leone setting and there is the urgent need for hospital policies that support caregiver involvement in neonatal care.

The author of this study intends to share these findings and recommendations with the hospital management, it is her desire that further trainings would be conducted for nursing staff on FCC implementation and eventually FCC approach would be incorporated into hospital policy at the Rokupa Government Hospital. If this is achieved it could serve as a catalyst for change in the delivery of neonatal care in other facilities nationwide, with nursing staff and caregivers forming effective partnerships that ensure improved neonatal outcomes.

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Disclosure

The author reports no conflicts of interest in this work.

References

1. Griffin T. Family-centered Care in the NICU. *J Perin Neon Nurs*. 2006;20(1):98–102. doi:10.1097/00005237-200601000-00029
2. Masera G, Jankovich M, Beltrame F. L'Umanizzazione dell'Ospedale: l'esperienza della Clinica Pediatrica dell'Ospedale di Monza. In: Delle Fave A, Morsicano S, editors. *L'Umanizzazione dell'Ospedale Riflessioni ed esperienze. Milano: Franco Angeli*. 2004:115–1310.
3. Institute of patient and family centered care. Advancing the practice of patient and family centered care: how to get started; 2017. Available from: https://www.ipfcc.org/resources/getting_started.pdf. Accessed September 5, 2023.
4. Wertlieb D. American Academy of Pediatrics Task Force on the Family. Converging trends in family research and pediatrics: recent findings for the American Academy of Pediatrics Task Force on the Family. *Pediatrics*. 2003;111(6 Pt 2):1572–1587. PMID: 12777596.
5. Schor EL. American Academy of pediatrics task force on the family. Family pediatrics: report of the task force on the family. *Pediatrics*. 2003;111 (6 Pt 2):1541–1571. PMID: 12777595.
6. Abuqamar M, Arabiat DH, Holmes S. Parents' perceived satisfaction of care, communication and environment of the pediatric intensive care units at a tertiary children's hospital. *J Pediatr Nurs*. 2016;31(3):e177–84. PMID: 26803562. doi:10.1016/j.pedn.2015.12.009
7. Abukari AS, Schmollgruber S. Concepts of family-centered care at the neonatal and paediatric intensive care unit: a scoping review. *J Pediatr Nurs*. 2023;71:e1–e10. PMID: 37120388. doi:10.1016/j.pedn.2023.04.005
8. Apedani DB, Koduah A, Druye AA, Ebu NI. Experiences of mothers with preterm babies on support services in neonatal intensive care unit of a mission hospital in Ghana. *Int J Africa Nurs Sci*. 2021;15:100366. doi:10.1016/j.ijans.2021.100366
9. Lomotey AY, Bam V, Diji AK, Asante E, Asante HB, Osei J. Experiences of mothers with preterm babies at a mother and baby unit of a tertiary hospital: a descriptive phenomenological study. *Nurs Open*. 2019;7(1):150–159. PMID: 31871698; PMCID: PMC6917974. doi:10.1002/nop2.373
10. Jannes C, Miedaner F, Langhammer K, et al. Increased parental satisfaction by unrestricted visiting hours and developmentally supportive care in NICUs - results of a German multicenter study. *J Matern Fetal Neonatal Med*. 2020;33(11):1874–1880. PMID: 32216530. doi:10.1080/14767058.2018.1532499
11. Lv B, Gao XR, Sun J, et al. Family-centered care improves clinical outcomes of very-low-birth-weight infants: a quasi-experimental study. *Front Pediatr*. 2019;7:138. PMID: 31032240; PMCID: PMC6473064. doi:10.3389/fped.2019.00138
12. Harrison TM. Family-centered pediatric nursing care: state of the science. *J Pediatr Nurs*. 2010;25(5):335–343. PMID: 20816555; PMCID: PMC2965051. doi:10.1016/j.pedn.2009.01.006
13. Institute of healthcare improvement PDSA worksheet 2016. Available from: https://www.google.com/search?q=19.+Institute+of+healthcare+improvement+PDSA+worksheet+2016&oq=19.%09Institute+of+healthcare+improvement+PDSA+worksheet+2016&aqs=chrome.69i57.1182j0j7&sourceid=chrome&ie=UTF-8. Accessed October 7, 2023.
14. Auerbach AD, Landefeld CS, Shojania KG. The tension between needing to improve care and knowing how to do it. *New Engl J Med*. 2007;357 (6):608–613.
15. Adebisi YA, Alaran A, Badmos A. How West African countries prioritize health. *Trop Med Health*. 2021;49(87). doi:10.1186/s41182-021-00380-6

16. UNICEF 2016. Maternal, neonatal, child and adolescent health. Available from: https://www.unicef.org/sierraleone/maternal-neonatal-child-and-adolescent-health. Accessed April 24, 2023.
17. UNFPA Sierra Leone. Newly constructed rokupa hospital would improve quality of care and health outcomes of women and children in Sierra Leone; 2019. Available from: https://sierraleone.unfpa.org/en/news/newly-constructed-rokupa-hospital-will-improve-quality-care-and-health-outcomes-women-and. Accessed October 7, 2023.
18. Carter JD, Mulder RT, Bartram AF, Darlow BA. Infants in a neonatal intensive care unit: parental response. *Arch Dis childhood*. 2005;90(2):F109–F113.
19. Rihan SH, Mohamadeen LM, Zayadneh SA, et al. Parents' experience of having an infant in the neonatal intensive care unit: a qualitative study. *Cureus*. 2021;13(7):e16747. PMID: 34513371; PMCID: PMC8405361. doi:10.7759/cureus.16747
20. Malliarou M, Karadonta A, Mitroulas S, et al. Preterm parents' stress and coping strategies in a neonatal intensive care unit in a university hospital of central Greece. *Mater Sociomed*. 2021;33(4):244–249. PMID: 35210945; PMCID: PMC8812370. doi:10.5455/msm.2021.33.244-249
21. Brelsford GM, Ramirez J, Veneman K, Doheny KK. Sacred spaces: religious and secular coping and family relationships in the neonatal intensive care unit. *Adv Neonatal Care*. 2016;16(4):315–322. PMID: 27391569; PMCID: PMC5498099. doi:10.1097/ANC.0000000000000263
22. Heermann JA, Wilson ME, Wilhelm PA. Mothers in the NICU: outsider to partner. *Pediatr Nurs*. 2005;31(3):176–81, 200. PMID: 16060580.
23. Kirchhoff KT, Pugh E, Calame RM, Reynolds N. Nurses' beliefs and attitudes toward visiting in adult critical care settings. *Am J Crit Care*. 1993;2(3):238–245. PMID: 8364675.
24. McAlvin SS, Carew-Lyons A. Family presence during resuscitation and invasive procedures in pediatric critical care: a systematic review. *Am J Crit Care*. 2014;23(6):477–84; quiz 485. PMID: 25362671. doi:10.4037/ajcc2014922
25. Sivanandan S, Bethou A, Ramanujam S. Implementing family-centered care in the neonatal intensive care unit – a quality improvement initiative. *Indian J Pediatr*. 2021;88:872–878. doi:10.1007/s12098-020-03566-8
26. Sarin E, Maria A. Acceptability of a family-centered newborn care model among providers and receivers of care in a public health setting: a qualitative study from India. *BMC Health Serv Res*. 2019;19(184). doi:10.1186/s12913-019-4017-1
27. Kamara GN, Sevalie S, Molleh B, et al. Hand hygiene compliance at two tertiary hospitals in Freetown, Sierra Leone, in 2021: a cross-sectional study. *Int J Environ Res Public Health*. 2022;19(5):2978. PMID: 35270674; PMCID: PMC8910077. doi:10.3390/ijerph19052978
28. Stelwagen MA, van Kempen AAMW, Westmaas A, Blees YJ, Scheele F. Integration of maternity and neonatal care to empower parents. *J Obstet Gynecol Neonatal Nurs*. 2020;49(1):65–77. PMID: 31809695. doi:10.1016/j.jogn.2019.11.003
29. O'Brien K, Bracht M, Robson K. Evaluation of the Family Integrated Care model of neonatal intensive care: a cluster randomized controlled trial in Canada and Australia. *BMC Pediatr*. 2015;15(210). doi:10.1186/s12887-015-0527-0
30. Abukari AS, Schmollgruber S. Perceived barriers of family-centred care in neonatal intensive care units: a qualitative study. *Nurs Crit Care*. 2024. PMID: 38228405. doi:10.1111/nicc.13031
31. Wigert H, Hellström AL, Berg M. Conditions for parents' participation in the care of their child in neonatal intensive care – a field study. *BMC Pediatr*. 2008;8(3). doi:10.1186/1471-2431-8-3
32. Fenwick J, Barclay L, Schmied V. 'Chatting': an important clinical tool in facilitating mothering in neonatal nurseries. *J Adv Nurs*. 2001;33:583–593. doi:10.1046/j.1365-2648.2001.01694.x
33. MacKean GL, Thurston WE, Scott CM. Bridging the divide between families and health professionals' perspectives on family-centred care. *Health Expect*. 2005;8(1):74–85. PMID: 15713173; PMCID: PMC5060268. doi:10.1111/j.1369-7625.2005.00319.x
34. Albayrak S, Büyükgönenç LA. The impact of family-centered care interventions on neonatal and parental outcomes in a Turkish hospital. *Collegian*. 2022;29. doi:10.1016/j.colegn.2022.05.004
35. Çetintaş İ, Mutlu ENK, Semerci R, Kostak MA, Dinçkol RZ. The effect of family-centered care education on pediatric nurses' attitudes and clinical practices: nurse and parent perception. *J Pediatr Nurs*. 2023;73:e395–e400. PMID: 37827860. doi:10.1016/j.pedn.2023.10.006
36. Mirlashari J, Brown H, Fomani FK, de Salaberry J, Zadeh TK, Khoshkhou F. The challenges of implementing family-centered care in NICU from the perspectives of physicians and nurses. *J Pediatr Nurs*. 2020;50:e91–e98. PMID: 31300252. doi:10.1016/j.pedn.2019.06.013
37. Luke RA, Block P, Davey JM, Averch VR. A structural approach to organizational change. *J Appl Behav Sci*. 1973;9(5):611–635. doi:10.1177/002188637300900506
38. Kotter JP, Schlesinger LA Choosing strategies for change. Harvard Business Review; 2008. Available from: https://hbr.org/2008/07/choosing-strategies-for-change. Accessed July 3, 2023.