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Abstract

Purpose: The main objective was to explore the breastfeeding experiences of mothers with babies admitted to the Neonatal Intensive Care Unit (NICU) at University Teaching Hospital (UTH) Women and Newborn Hospital (WNBH), Lusaka, Zambia.

Methodology: A qualitative phenomenological transcendental (descriptive) design using unstructured in-depth interviews with mothers of babies admitted to the NICU at UTH Women and Newborn, Lusaka, Zambia was used to explore the experiences. All the interviews were recorded and then transcribed thereafter analysed using thematic analysis.

Findings: Findings revealed that breastfeeding in NICU was breastfeeding in a restricted environment as mothers had inadequate time for breastfeeding and bonding. Mothers perceived the NICU to be a painful and scary place. The breastfeeding support was perceived as good breastfeeding support while some mothers perceived the support as inadequate or no breastfeeding support. Nevertheless, mothers had alternative support options while breastfeeding in a restricted environment and the options included praying to God Almighty, strengthening oneself and peer support.

Unique contribution to theory, practice and policy: The study concluded that separation of mothers from their babies was a source of pain and NICU was not a conducive environment for breastfeeding. Mothers need more time with their babies so as to promote breastfeeding and bonding.

Keywords: Breastfeeding, Experiences, Small and Sick babies, Breastfeeding Support, Neonatal Intensive Care Unit.
1.0 BACKGROUND INFORMATION

Immediate and uninterrupted skin-to-skin (STS) contact and initiation of breastfeeding within the first hour after birth are important for the establishment of breastfeeding, and for neonatal and child survival and development (World Health Organisation (WHO), 2018). Human milk and breastfeeding are extremely important for sick or small neonates to reduce morbidity and mortality and support the best possible growth, development and overall outcome (WHO, 2020). Smith et al., (2017) examined the association of very early breastfeeding initiation and neonatal mortality; the findings revealed that infants who delayed to initiate breastfeeding had a 33% greater risk of neonatal mortality. Medical interventions significantly increase the risk of breastfeeding challenges that lead to delayed initiation and early cessation (WHO, 2018).

The WHO estimates that 30 million newborns every year require inpatient care as a result of being born preterm, with low birth weight or with a medical condition (WHO, 2019). Hilditch et al., (2019) argues that despite the small and Sick Babies often requiring inpatient care, neonatal intensive care is consistently associated with lower rates of breastfeeding initiation and duration and more uncertainty and stress.

Pinar and Erbaba (2020) explored Experiences of New Mothers with Premature Babies in Neonatal Care Units in Turkey and results revealed that mothers whose babies were admitted to NICU were unable to breastfeed and establish intimacy with their babies and to communicate effectively with health care providers. According to a systematic review on barriers and facilitators for early and exclusive breastfeeding in health facilities in Sub-Saharan Africa, results show that facility-based breastfeeding policies and guidelines are available however, challenges in implementation exist, especially at lower health service levels and other challenges identified include health facility infrastructure, supplies, overcrowding and lack of privacy during breastfeeding counselling that lowers the openness and comfort of mothers (Kinshella et al, 2021).

According to the admission register, NICU at Women and Newborn Hospital (WNBH), has an average of 375 admissions in a month. The NICU is faced with space constraints therefore a house commonly known as a mother’s shelter located about 200 metres is provided in which mothers are expected to stay while their babies are admitted to NICU (USAID Zambia, 2019). Lack of planning and design for breastfeeding, inconsistent advice, lack of knowledge or misinformation, personal bad experiences, lack of time, and facility policies all can compromise breastfeeding for mothers of small, sick and/or preterm infants (Maternal and Child Survival Program, 2019). With neonatal ward staff caring for the sick baby on the NICU, mothers may feel like outsiders (WHO and UNICEF, 2020) and the BF experience for these mothers may be negatively affected by the NICU environment (Ikonen, et al., 2015; Niela-Vilén et al., 2015). Hilditch et al., (2019) further argues that despite the small and Sick Babies often requiring inpatient care, neonatal intensive care is consistently associated with lower rates of breastfeeding initiation and duration and more uncertainty and stress.

Poggenpoel and Myburgh, (2017) explored lived experiences of parents of premature babies in the intensive care unit in a private hospital in Johannesburg, South Africa and results revealed
that Parents were traumatised by the fragility of their babies and the technology which surrounded them. Results further revealed that mothers reported feelings like distress, guilt, fear, frustration, envy, anger, jealousy and sadness. A mother’s breastfeeding (BF) experience plays an important role in the establishment and duration of breastfeeding (Yang, et al 2019). Through observations made while working in the NICU at WNBH Lusaka, mothers are not allowed to express breastmilk adjacent to their babies, instead a separate room is provided for expressing breastmilk. Restrictions have been put in place on visitations by providing a 2hourly/3hourly schedule for mothers which interferes with breastfeeding on demand and bonding. A negative BF experience is associated with reduced BF duration, inadequate milk supply and BF failure (Yang, et al 2019). Therefore, this study was aimed at exploring the breastfeeding experiences of mothers with babies admitted to NICU at the WNBH, Lusaka Zambia.

2.0 METHODOLOGY

2.1 Research Design

Qualitative phenomenological transcendental (descriptive) design was used to describe the experiences of mothers with babies admitted to NICU at UTH.

2.2 Study setting

The NICU at the UTH, WNBH was the study setting. Zambia has two University Teaching Hospitals namely; UTH and Levy Mwanawasa Medical University (LMMU). The NICU at UTH was purposively selected as it is the biggest NICU in Zambia. The NICU has a total bed capacity of 40 with an average daily census of over 80 babies. The unit has specialised doctors and provides tertiary care.

2.3 Data collection Instruments

Data was collected using semi-structured in-depth interview which enabled participants to tell their stories in their own way using their primary languages. The following questions were asked in the participant’s primary language; (1) What are your experiences of breastfeeding your baby in NICU? (2) What are your feelings of breastfeeding your baby in NICU? (3) What do you think of the breastfeeding support while breastfeeding your baby in NICU?

2.4 Study population

The study population comprised of mothers whose babies were small, premature or sick and admitted to NICU for more than 3 days at the time of the study. At the time of the interviews, mothers’ stay in NICU ranged from 3 days to 3 weeks. A total number of ten (10) mothers were interviewed.

2.5 Data analysis and Presentation

Colaizzi’s (1978) phenomenological method was used to uncover the genuine experience of breastfeeding in NICU. Firstly, bracketing of the researcher’s assumptions was ensured. Thematic analysis was used to analyse the data. The recordings were listened to and transcribed from local languages to English in order to acquire sense of the whole. Colour coding was done
by using similar colours for similar meanings, then significant statements and units of meaning were identified in the database from participants, and clustered into subthemes to form textural description (the what of the phenomenon). The subthemes were then synthesised into a description of the experiences of mothers with babies admitted to NICU. Imaginative variation was also used to create structural (the how) description. The descriptions were then combined to form the essence of the phenomenon (Moerer-Urdahl, and Creswell, 2004; Englander, 2012; Neubauer et al, 2019).

3.1 RESULTS

3.2 Participants and Infant Characteristics

Maternal age ranged from 18 years to 46 years. Only 2 mothers had attained tertiary education. However, 6 of the mothers had attained secondary education while 2 had attained primary education. As to parity, 4 mothers were primiparas while 6 were multiparas.

3.3 Themes

After data analysis, five (5) main themes which contribute to the understanding of the breastfeeding experiences of mothers with babies admitted to NICU were identified, namely; Breastfeeding in a restricted environment, Promotion of neonatal survival and breastfeeding, Good breastfeeding support, Inadequate or no breastfeeding support and Alternative support options while breastfeeding in a restricted environment.

3.3.1 Main Theme: Breastfeeding in a Restricted Environment

Breastfeeding in NICU reflected the lived experiences and feelings of mothers whose babies were admitted to NICU. This theme was constituted by four subthemes as expressed below;

3.3.1.1 Subtheme: Inadequate Time for Breastfeeding

This subtheme reflected the value mothers placed on breastfeeding. Most participants reported that time allocated to breastfeeding in NICU was inadequate. All the participants described the time to be inadequate because every time they were asked to leave NICU, the babies still wanted to breastfeed. Other participants felt that the time allocated was inadequate because they had to express breast milk which consumed some minutes from the 1 hour allocated to breastfeeding as stated below.

*Just when you want to breastfeed, you will be asked to leave because its time up and you leave the baby crying and the baby will keep on reducing weight meaning you have to remain in the hospital for a long period of time.*

*The duration depends on who is on duty that day, the time is so little to be with the baby.*

3.3.1.2 Subtheme: Uncomfortable NICU environment

This subtheme reflected the feelings that mothers felt while breastfeeding their babies in NICU. Some of the mothers described NICU to be painful although they had different reasons for such a description. For some participants it was because they couldn’t have enough rest, while others
it was because of not being able to breastfeed adequately. Meanwhile one participant felt being in NICU deprived her time to generate income to sustain her family.

This place is so painful; the timing of breastfeeding our babies. Just after a little time you have to come and breastfeed your baby. Meanwhile, some mothers described NICU as scary because of the equipment and the noise from the equipment (equipment in this case is the ventilator, resuscitaire, and Continuous Positive Airway Pressure (CPAP)).

One of the participant described the NICU environment as uncomfortable because she felt that the life of her baby was placed in her hands and she had the responsibility to feed the baby the right amount of breastmilk otherwise if she made any mistake, she felt that she could be responsible for her baby’s death.

it’s like your baby’s life has been put in your hands, so whatever you do if you make a mistake in whatever ml’s you have been told to feed the baby, if you overfeed the baby, if you feed the baby less actually the ball is in your hands that’s the feeling.

3.3.1.3 Subtheme: Staying away from the baby

This subtheme reflected the desire for mothers to be offered an environment similar to a home environment in which they could be with their babies throughout and be able to breastfeed on demand. Some of the participants described the staying away from the baby as painful and stressful because most of the time when they went back to NICU to breastfeed, they found their babies crying without anyone attending to them. Meanwhile, some of the participants described the staying away as stressful because of the distance and frequency of going to NICU to breastfeed. They described the experience as one that deprived them of rest as stated below;

I must rest there’s no resting coming from the ward walking up here every after 2hrs and that is kind of hectic but am trying my best and the milk is actually coming out.

This place is so painful, it’s not a comfortable place, we don’t sleep, every time we have to come and see our babies. We don’t sleep, we have to breastfeed our babies so often, once we breastfeed we have to leave and after a little while we have to come back again just like that such that we just sleep a little bit.

3.3.1.4 Subtheme: Expression of breastmilk away from the baby

This subtheme reflected the feelings and challenges mothers experienced while expressing breast milk away from their babies. One of the participants described the feeling as unpleasant while one participant highlighted the reason why they couldn’t be allowed to express adjacent to their babies as stated below;

The nurse asked me to go and express breast milk from a separate room away from my baby in order to prevent infections. Because if you express near the baby, microorganisms may go in the milk and may cause the baby to become sick. So the milk should be expressed from the room where we wash our hands from.
Expressing breast milk away from the baby limited the time that mothers spent with their babies because they had to spend some time expressing breast milk in the dressing room as highlighted by the following participant:

*Time allocated to breastfeed the babies is not enough, for instance when you are supposed to go in at 08:00hrs, you go in at 08:15hrs because you were expressing breast milk and you had challenges with milk production. Then at 08:35hrs you are asked to leave. So you have very little time with your child.*

### 3.3.2 Main Theme: Promotion of Neonatal Survival and Breastfeeding

The second theme was promotion of neonatal survival and breastfeeding. This theme reflected the desire that the mothers had in promoting survival of their babies. It also reflected the contributing factors to promotion of neonatal survival and breast milk production. The theme was informed by three subthemes namely: promotion of use of breastmilk, provision of formula milk and seeking for breastfeeding support

#### 3.3.2.1 Promotion of use of breast milk

This subtheme reflected the desire by the health care team to give every baby in NICU breastmilk and also the desire by the mothers to promote their child’s survival. Mothers were encouraged to express breastmilk and give it to their babies. Most of the participants reported that they were reprimanded if they did not express breastmilk.

*I was offered hot tea by my fellow mothers, and that’s what helped with milk production P9*

We are advised to start with breastfeeding before you give the milk in the cup as this promote milk production, because when you are just expressing some poles can clog and milk production will reduce but my baby is too weak to suck P6.

Mothers described being told the mls to feed their babies as one of the breastfeeding support. Meanwhile, one of the participant described being given drugs to promote milk production as breastfeeding support. Nevertheless, one of the participant was advised on how to hold the baby and the breast while breastfeeding however, the advice was given after 3 weeks of being in the hospital as stated below;

*I have been in the hospital for more than 3 weeks and its only today in the morning that some people came to teach us on how to breastfeed the babies, how to hold the baby while breastfeeding and how to hold the breast P7*

#### 3.3.2.2 Provision of formula milk

The subtheme reflected the desire for the survival of the babies. Some mothers perceived provision of formula milk as the only breastfeeding support offered in NICU. *The support has come from members of staff who provide formula milk P4*

Therefore, if the baby was not offered formula milk when the mother’s milk production is poor, the mother then considers breastfeeding support not being offered as stated below;
My baby was not given any support, they refused to give her formula milk, they said my baby was very small, you just have to produce breastmilk because that’s the only food your baby can take and it will help your baby grow P6

3.3.2.3 Subtheme: seeking for breastfeeding support

Participants had to find ways and means of improving milk production. Most of the participants learnt on measures to improve milk production from other experienced mothers who told them to drink black tea. Meanwhile, one of the participant had to ask from marketers across the hospital who advised her to drink kawawasha (tamarind), black tea and lemons as stated below;

After being counselled, I had to go across the road and asked those who were selling what I could do to have milk production and I was advised to buy kawawasha (Tamarind) and lemons P6

Basically my friends told me how to have a big volume of milk, like drinking munkoyo, maheu, a lot of friends and also buy a breast pump because just expressing the milk is not enough and other people they know where to press so that the milk can come out and that’s the challenge that I have, I don’t know how to do that P8

3.3.3 Main Theme: Good Breastfeeding Support

The theme reflected the positive perception and feelings mothers had towards the support offered to them while breastfeeding their babies. Two subthemes emerged, namely; 1) happy with the breastfeeding support 2) Unlimited support

3.3.3.1 Happy with the breastfeeding support

This subtheme reflected the satisfaction with the breastfeeding support offered in NICU. Some mothers were offered breastfeeding support and they were happy of the support offered to them as stated below;

I was happy with the breastfeeding counselling that we were given. If you follow the instructions your baby would grow properly P7

You need to ask the nurses like how many mls should I give the baby now? How many mls should I give the baby now? That was a good support P5

3.3.3.2 Subtheme: Unlimited support

The theme reflected how mothers appreciated the presence of the nurse during their absence as they attended to their babies during those periods in which they are not allowed to breastfeed. Nonetheless, mothers appreciated the provision of formula to their babies as stated below;

They gave my baby formula in an event that I delayed to go and breastfeed the baby (P1)

The support was okay because when you are not around, they will provide care to the babies P2
3.3.4 Main Theme: Inadequate or No Breastfeeding Support

This theme reflected the dissatisfaction with the breastfeeding support offered and the mistreatment of mothers while breastfeeding in NICU. The theme emerged from 2 subthemes namely; 1) the uncaring NICU nurse 2) Unstructured breastfeeding support

3.3.4.1 Subtheme: The uncaring NICU nurse

Some mothers described the nurses as rude as they could shout at mothers when they made mistakes; for example if they enter NICU without a gown or wearing a wrapper (chitenge). Some participants reported that NICU nurses were rude when asked for assistance. Meanwhile some nurses refused to provide information to the mothers as they felt that information pertaining to the child should only be given to the father as stated below;

*When you ask the response is really bad it’s even going to hurt you more, sometimes someone will just come we don’t deal with mothers we just want to deal with fathers, “once you know about the condition of your baby, what are you going to do about it?” will tell you when your baby gets better and that’s when we discharge you.*

P5

3.3.4.2 Subtheme: Unstructured breastfeeding support

One of the participant reported that the breastfeeding counselling was not given on time as she spent 3 weeks and did not receive any breastfeeding counselling from the nurses. The breastfeeding support would be more helpful if it would be offered on time. Some mothers were advised to breastfeed the baby before giving the baby the expressed breast milk or formula in order to promote milk production while other nurses advised mothers to give expressed breast milk before breastfeeding.

Additionally, another participant felt the instructions on mls to be given was not clear because some mothers did not know how to calculate the mls to give if a syringe which is not equivalent to the mls is provided as highlighted below;

*Some mothers are not learned, so when you are told today how to put 17mls and tomorrow they change to 21mls no one comes to teach you that you put 10mls and again 10mls and then 3mls to make 23mls.*

P8

3.3.5 Main Theme: Alternative Support Options While Breastfeeding in A Restricted Environment

The theme reflected the coping strategies which mothers resorted to while breastfeeding in the NICU and emerged from 3 subthemes namely; 1) strengthening oneself 2) praying to God Almighty 3) learning from other mother’s experience.

3.3.5.1 Subtheme: Strengthening oneself

This subtheme reflected the inner motivation and desire that the mother had to see her baby survive. It also reflected the limited options that mothers had with coping strategies. Mothers used their inner strength as women to withstand the challenges which they encountered while
breastfeeding their babies in NICU. Some of the participants had to strengthen themselves as they did not have support as highlighted by the following;

*I just strengthen myself and praying to God Almighty so that he can take care of my child* P1

**3.3.5.2 Subtheme: Praying to God Almighty**

The subtheme reflected the strong belief in Christ and also the limited alternatives the mothers had in coping with challenges. Praying to God and believing in God is what strengthen some mothers while breastfeeding in NICU as stated below.

*Pouring my heart to Jehovah the Almighty to give me the strength and the energy for the baby because the life is in my hands because I am the care giver* P1

**3.3.5.3 Subtheme: Learning from other mother’s experiences**

This subtheme reflected the strong belief in experience. Mothers believed those mothers who had passed through similar situations especially when it came to challenges with milk production. Most mothers were helped by fellow mothers who advised them to be drinking black tea and kawawasha (Tamarind) as stated below;

*I managed to cope, friends have helped me to give me comfort, encouragement and how to go about it. Basically my friends told me how to have a big volume of milk, like drinking munkoyo, maheu.* P1

*The only thing that helped me was what other people (experienced mothers) were saying that you have to take at least black tea.* P1

**4.0 DISCUSSION OF FINDINGS**

**4.1 Mothers Experiences of Breastfeeding**

**4.1.1 Breastfeeding in a Restricted Environment**

A mother’s success to breastfeeding in NICU depends upon the obstetric and NICU environment, and the knowledge and attitudes of those who care for her and her infant (Wight, 2015). The study findings revealed NICU at UTH to be a restricted environment for breastfeeding which possess a major challenge for mothers as it limits the time for bonding and breastfeeding. Similarly, Wight, (2015), contend that the physical environment of the neonatal ward may be a significant impediment to successful breastfeeding. It may be noisy, brightly lit, and intimidating, without much privacy, and with a perceived high stress level. Results revealed that the duration for breastfeeding during the interval was considered inadequate for breastfeeding consistent with the study findings by Endalkachew et al., (2022) who explored parental experiences in NICU in Ethiopia where the hospital had a limited visiting schedule and parents were challenged by strict visiting hours. Asking mothers to leave the NICU in order for nurses to work purely shows that mothers are perceived as hindrances to work in NICU. Additionally, it shows that nurses in NICU do not implement the guidelines for breastfeeding. Similarly Shattnawi (2017), who explored the Healthcare Professionals' Attitudes and Practices in Supporting and Promoting the Breastfeeding of Preterm Infants in
NICUs Jordanian hospitals findings reviewed that, despite health care providers knowing the benefits of breastfeeding, the actual implementation of breastfeeding policies within NICUs is problematic.

4.2 Perceptions on Breastfeeding Support

4.2.1 Good Breastfeeding Support

Some mothers viewed the breastfeeding support to be good, others were happy with the breastfeeding support which was being provided. Results further revealed that some mothers were happy with the communication on the amount of milk to be given to the babies while other mothers felt that the information was inadequate and unclear. The study findings are consistent with the findings by Niela-Vilén et al, (2015), which showed that mothers were satisfied with the breastfeeding counselling and they felt encouraged by their nurses.

4.2.2 Inadequate or No Breastfeeding Support

The study findings revealed that some of the mothers were dissatisfied with the BF support and nurses were too busy to assist mothers with BF as they focused more on very ill babies. Mothers further described the nurses as rude and not supportive, additionally, the support was limited and unstructured. Similarly, a study conducted in Uganda by Diji et al., (2016), revealed lack of BF support as one of the challenges that mothers experienced in NICU. The study findings also revealed that mothers were given contradicting advice. Similarly, Yang et al, (2019) revealed that some mothers felt that they received contrasting advice and counselling from the nurses while in NICU. Inconsistent advice, lack of knowledge or misinformation all can compromise BF for mothers of small, sick and/or preterm infants (maternal and child survival program, 2019).

4.2.3 Alternative Support Options While Breastfeeding in a Restricted Environment

The study findings revealed that mothers had coping strategies which helped them to breastfeed in a restricted environment. Some mothers turned to God Almighty for strength as they had limited options while some of the mothers had to find inner strength as they had limited or no support from the nurses or friends while others had peer support. Meanwhile a study by Pinar and Erbaba, (2020) revealed that mothers had to cope with the emotional stresses surrounding the neonatal ward experience through provision of milk to their infants. The difference in the results could be attributed to Zambian women perceiving provision of milk as a norm and not a coping strategy. According to yang et al, (2019), some mothers did not have the mental resources to be interested in breastfeeding while in hospital.

5.0 CONCLUSIONS

Findings revealed NICU to be a restricted environment for breastfeeding as it does not accord mothers adequate time for breastfeeding. Such an environment has an implication on breastfeeding and bonding. Findings further revealed NICU to be a painful place as the place could not allow mothers to breastfeed freely or rest. The place was also described as scarely
because of the equipment, alarms and the condition of the baby. Therefore mothers requested to be counselled before they entered the NICU.

The breastfeeding support was perceived as good by some mothers while others perceived the support to be limited and other mothers did not receive any support. Some mothers described the nurses to be rude. However, some mothers were able to receive peer support while others had coping strategies such as praying to God Almighty and some had inner strength. Therefore there is need to strengthen the breastfeeding support in NICU at UTH.

6.0 RECOMMENDATIONS

The Ministry should develop policies and guidelines or adopt the specific guidelines for small and sick babies which were developed by WHO and UNICEF (2018). All nurses who are assigned to work in NICU should have one week orientation on importance of breastfeeding in small and sick babies and oriented on breastfeeding counselling and support for mothers with small and sick babies. Mothers should be oriented on their expectations while their babies are admitted to NICU. A nurse should be assigned on a daily basis to orient mothers upon admission of their babies to NICU to enable them familiarise with the NICU rules and guidelines. Mothers should be guided and observed when measuring the required mils to ensure that the right mils are given to the baby.

7.0 FINANCIAL SUPPORT AND SPONSORSHIP

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8.0 REFERENCES


WHO and UNICEF, (2018) Implementation Guidance: Protecting, Promoting and Supporting Breastfeeding in Facilities Providing Maternity and Newborn Services – the revised Baby-


