

Using Colazzie Analysis: Experience of Mother with Premature Twins and Neonatal Intensive Care Unit

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Received November 24, 2023; Revised December 28, 2023; Accepted February 17, 2024

Cite This Paper in the Following Citation Styles

(a): [1] Sheela Upendra, Jasneet Kaur, Sheetal Barde, "Using Colazzie Analysis: Experience of Mother with Premature Twins and Neonatal Intensive Care Unit," *Universal Journal of Public Health*, Vol. 12, No. 2, pp. 271 - 276, 2024. DOI: 10.13189/ujph.2024.120211.

(b): Sheela Upendra, Jasneet Kaur, Sheetal Barde (2024). *Using Colazzie Analysis: Experience of Mother with Premature Twins and Neonatal Intensive Care Unit*. *Universal Journal of Public Health*, 12(2), 271 - 276. DOI: 10.13189/ujph.2024.120211.

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Abstract The most frequent, expensive, and devastating pregnancy problem is delivery occurring prior to the completion of 37 weeks of pregnancy. The major cause of infant death and a significant fraction of all birth-related short- and long-term illnesses is preterm birth. A descriptive phenomenological approach was adopted. Mothers of new-borns admitted to neonatal units, as well as having premature twins babies delivered before 37 weeks of gestation, were eligible to participate in the research. The mothers of premature children with congenital defects or severe illnesses were not included in the investigation. Up to data saturation, seven mothers were included in a purposeful sampling. Information was verified by reading the transcripts while listening to the audio after each tape was transcribed. Significant measures were made to safeguard the anonymity of participants and the information they submitted. By utilizing methods like reflexivity, triangulation, peer debriefing, and member checks, the validity and reliability of the data acquired were enhanced. The criteria of credibility, confirmability, dependability, and transferability were used to assure trustworthiness. The lived experiences of the participants are described under four themes namely: emotional state, parenting concern, need for Help and Desire. Under Emotional state – Uneasiness, Anxiety and unpreparedness, and fear of health issues of the new-born were the subthemes. Mother-baby relationship subtheme was under the parenting concern theme. Under the need for help theme, three subthemes emerged: need for help from the health team professional, need for help from family members, and spiritual support. Constantly monitoring the

babies was the subtheme under the Desire theme. Mothers of premature twins reported feeling anxious, fearful, and helpless for both babies and babies' admission at the NICU. Mothers required a lot of encouragement and support from the medical team to begin caring for their infants' basic needs.

Keywords Premature, Twins, Neonatal Intensive Care Unit, Mother, Experience, Colazzie Analysis

1. Introduction

The womb is the ideal environment for a baby's development. Babies that are born too soon have undeveloped organs that are not prepared to work in "the outside world". The most frequent, expensive, and devastating pregnancy problem is delivery occurring prior to the completion of 37 weeks of pregnancy. The major cause of infant death and a significant fraction of all birth-related short- and long-term illness is preterm birth. More than half of premature deliveries result from spontaneous preterm labour [1]. Preterm births are unplanned and sometimes distressing for the parents [2].

The development of the parents' mental images and expectations is abruptly interrupted by the baby's preterm delivery. Additionally, the possibility of the mother's and baby's critical conditions shocking the parents can make preterm birth a highly stressful or traumatic experience for both the mother and the father [3].

Mothers indicate that their expectations were not met, and that the experience of connecting with twins was challenging and took longer than expected. Both mothers and the professionals who work with them would benefit from having a better knowledge of the difficulties of connecting with twins [4].

Mothers who were holding their preterm for the first time reported conflicting feelings. Due to the emergency Neonatal Intensive Care Unit admission, they experienced emotional detachment. Mothers were concerned about the baby's unpredictability in life and held themselves responsible for an early delivery. They received assistance from their family despite having a difficult time paying for their prolonged stay in the Neonatal Intensive Care Unit (NICU) [5].

1.1. Objective

To describe the experiences of mothers with premature twins and Neonatal intensive care units.

1.2. Significance of Problem

A preterm birth can have a profound emotional impact on the whole family especially the mother. According to research, parents of preterm new-borns are more likely to struggle with their mental health than parents whose babies were born at term. People who go into preterm labor are more likely to have anxiety, sadness, helplessness, fear, confusion or post-traumatic stress disorder. It's crucial to get assistance when it appears that things are getting out of control.

Mothers of preterm twin's new-borns are more likely than mothers of full-term kids to face acute stress and mental health issues.

The risk of morbidity and death increases with an infant's prematurity. Parental uncertainty early in a child's life is exacerbated by the large range and difficulty of long-term results [6].

To comprehend mothers with early twins and find traits for future research, study results can enhance neonatology, neurology, and group psychotherapy. This helps us understand the effects on mothers better. The health care team may benefit from knowing more about the results and potential difficulties from this research. This study aims to give pertinent information to support future judgements on the effective approaches for educating mothers on mental health.

The planning and delivery of maternal and neonatal critical care services can be guided by research. But there hasn't been much research on parents' initial perceptions and responses to preterm birth.

When a baby is born, there is a separation from him/her, and the infant is put in an incubator; handling the infant calls for extreme caution. Since they must rely on Neonatal Intensive Care Unit staff for access to their child as well as information and instructions on how to care for him or her,

parents may feel as though their child is not truly theirs. The fact that very preterm children appear and behave quite differently from ordinary babies may hinder the growth of parent-child bonds. The parent-child attachment bond may suffer long-term harm as a result of the early abnormalities in parent-child interaction experienced by extremely preterm newborns as well as the posttraumatic stress experienced by the parents after the baby is born [7].

Particularly if there are issues with the delivery, the family may find the sudden arrival of a preterm new-born distressing and emotionally tax the mother and father. Despite the fact that many new-borns in serious condition can survive thanks to modern technologies in Neonatal Intensive Care Units [8].

Additionally, there haven't been any reported studies that specifically look at mothers' experiences when twins and prematurity conditions arise.

1.3. Purpose

This phenomenological study set out to investigate the mother's experiences with neonatal intensive care units and preterm twins. Mother's experiences, attitudes, views, and personal responses to the period she has been through were the focus of this study.

1.4. Research Question

1. What are the experiences of mothers who had prematurity twin pregnancy?
2. Explain your feeling when you first saw babies in the neonatal intensive care unit?

1.5. Rational for Qualitative Research Design

When a group or population with difficulties or issues has to be studied, qualitative inquiry is the most suitable method. The current study aimed to explore the experience of mother. In this study, data were gathered using semi-structured interviews and document collection, both of which are qualitative research techniques. Qualitative approaches promote high depth and detail in data collecting and offer a substantial quantity of information about a small number of individuals. The scope of the emerging data from this study, in the opinion of the researcher, accurately reflects the participants' actual experiences.

2. Methodology

2.1. Research Design

A descriptive phenomenological approach was adopted. The study population was made up of mothers whose babies were on admission at neonatal units with babies born before 37 weeks of gestation and twins were eligible to take part in the study. The study excluded mothers whose

preterm children had congenital abnormalities and/or were seriously unwell. Purposive sampling of seven mothers was continued until data saturation was reached. Mothers in the new-born units were contacted by the researchers, who described the study's nature and goal to them. Mothers who agreed to participate in the study were scheduled for one-on-one, in-depth interviews. Institutional Research Committee (IRC) approval was obtained before participants were asked to participate in this study. Participants who met the inclusion criteria were recruited requesting voluntary participation. Mothers were recruited until the point of theoretical saturation of data was met.

2.2. Tool and Technique

A demographic survey, a semi-structured interview, and a follow-up member check interview were all required of the participants. Semi-structured interviews were conducted, and each session lasted between 40 and 45 minutes. Participants were urged to express themselves freely and in their own terms. The researcher examined the need for a second contact at the conclusion of each interview to go over the meaning of the data and make sure the participants' stated experiences were accurately reflected. After seven interviews, the data saturation threshold was reached.

Every interview was recorded and then written down. Researchers carefully examined, categorized, and coded the interview-related data to search for themes and related ideas.

Demographic information obtained includes questions regarding age, educational status, parity, mode of delivery, gestational age and neonatal birth weights of both babies. The purpose of the interview questions was to learn more about the attitudes, views, and experiences of premature twin and neonatal intensive care units. The semi-structured interview guide, which is a schematic presentation of the questions or topics that the interviewer must cover, is the cornerstone of semi-structured interviews.

Interview guidelines are a useful technique for maximizing interview time since they serve to keep the interview focusing on the anticipated course of action while also thoroughly and systematically examining multiple replies [9]. By clarifying answers to the questions posed in the first interview and gathering any extra information relevant to the study, the member check in this study was utilized to assist increase the correctness, credibility, and trustworthiness of the research.

This study adopted Colaizzi's (1978) descriptive phenomenological methodology, which includes a recommended member check that takes place close to the conclusion of the research project and involves presenting the basic framework to participants and comparing the findings to their own experiences. The subjects of this study were given the opportunity to critically evaluate and remark on the results and evaluated to see whether a "true" or genuine portrayal of what they said during the interview

was created. This study utilized measures to minimize bias in the purposeful participant selection and interpretation of interview data, including member checks and peer debriefing approaches. The validity and reliability of the data obtained were improved through the use of techniques including reflexivity, triangulation, peer debriefing, and member checks.

2.3. Quality Control

The criteria of credibility, confirmability, dependability, and transferability were used to assure trustworthiness. To ensure the credibility and confirmability of the established themes, member and peer review of transcripts and themes were conducted. Through thorough field notes and descriptions of study procedures, dependability, and transferability were obtained.

3. Result

Section I: Demographic Variable

Table 1. Description of Demographic variables.

| Variables | Frequency | Percentage |
|---|-----------|------------|
| Age (years) | | |
| 19-25 | 01 | 14.3% |
| 26-30 | 06 | 85.7% |
| 31-40 | 0 | 0% |
| Parity | | |
| 01 | 01 | 14.3% |
| 02-05 | 06 | 85.7% |
| More than 05 | 0 | 0% |
| Mode of delivery | | |
| Normal vaginal delivery | 0 | 0% |
| Caesarean delivery | 07 | 100% |
| Gestational Age (Weeks) | | |
| 28 Weeks and less | 01 | 14.3% |
| More than 28 Weeks | 06 | 85.7% |
| Neonate Birth weight (first baby in kg) | | |
| Less than 2.5Kg | 07 | 100% |
| 2.5Kg | 0 | 0% |
| Neonate birth weight (Second baby in Kg) | | |
| Less than 2.5Kg | 07 | 100% |
| 2.5kg | 0 | 0% |

Themes generated through analysis were:

The lived experiences of the participants were described under four themes namely: emotional state, parenting

concern, need for help and desire:

Table 2. Themes and Sub-themes

| Themes | Sub-themes |
|--------------------------|---|
| Emotional state | Uneasiness |
| | Anxiety and Unpreparedness |
| | Fear of health issues of newborn |
| Parenting concern | Mother baby relationship |
| Need for help | Need for help from the health team professional |
| | Need for help from family members |
| | Spiritual support |
| Desire | Constantly monitor the babies |

Theme I: Emotional State

Uneasiness: The mothers were uneasy since they were unaware of the baby's development updates and were just sitting there clueless. The fear is growing since babies are so little and in incubators.

I believe that in some ways, I am still powerless since I am not sure what to do for my babies. (M03)

"Because I couldn't provide them with care, I felt helpless." (M06)

Anxiety and Unpreparedness: When mothers found preterm baby needed NICU care, the mothers were shocked and unprepared, especially after noticing the baby's short size and learning of unanticipated medical difficulties. Mothers of babies have higher levels of anxiety.

I feel anxious and unable to function on any work, this situation is really stressful and I cannot take any more. (M07)

Fear of health issues of new-born: While their premature neonates were in the NICU, mothers felt terror. Mothers were seen to be feeling fear and worry as they worried about the future health and potential difficulties of their babies.

I constantly and uncontrollably fear that my baby may develop new medical issues... (M01)

Theme II: Parenting concern

Mother baby relationship: Relationships between mothers and their babies require trust, safety, care, and respect. Mothers wanted to make sure their babies were in safe hands, in a safe atmosphere, and that their needs were being met with respect, having realistic expectations for them and establishing boundaries

Admission of my baby in Neonatal Intensive care unit disturbs the mother and baby bond (M02)

Theme III: Need for help

Need for help from the health care professional: In particular, nurses' emotional assistance was requested by mothers. They stated that they needed to feel as though the

members of the healthcare team understood and valued their anxiety and emotional distress rather than dismissing it or ignoring it as if it were unimportant or undesirable.

When the ICU nurse sat with me and explained the progress and the condition of my both babies and also supported by saying that she is also having twins and narrated her journey ... (M03)

Need for help from family members: Mothers described their spouses as pillars of strength during this critical period. Two mothers indicated that their maternal and paternal grandmothers offered assistance, especially after giving birth. Mothers occasionally experience additional help from family members, particularly the spouse.

There are moments when I feel that my spouse doesn't appreciate and understand my emotions; as a result, he prevents me from expressing my opinions. (M04)

Spiritual Support: Positive neonatal intensive care unit surroundings, parental support, and a network of spiritual support were constructive factors that helped to provide assistance to mothers of premature twin babies.

Even occasionally, I feel as though God is testing me and not paying attention to my prayers (M06)

God is my strength and my savior. He is with them even if I am not with my babies (M02).

Theme IV: Desire

Constantly monitor the babies: Few mothers thought that professionals had given them little attention or seemed to minimize their emotional issues. They emphasized that infants were in the NICU and expressed a desire to be with infants since they believed their current emotional struggles as parents persisted.

It is really unfair that NICU staff are not allowing parents to be with their newborns all the time at this point, since I firmly believe the baby needs me. (M03)

4. Discussion

The study's results showed that women described preterm birth as traumatic and the surroundings of the neonatal intensive care unit as scary and foreign. These mothers described feeling powerless, nervous, and apprehensive.

It might be challenging to establish contact between mother and child when the infant requires treatment in a neonatal intensive care unit (NICU). The most challenging part for mothers when their newborn child is hospitalized in a NICU is determined to be being separated from the infant [10].

The most crucial steps in helping mothers manage the stress of having their child hospitalized in the NICU are to pay attention to them, communicate with them about their needs, and inform them, preferably at the outset of their stay, and of the types of support that are available to them.

In the setting of a newborn facility, women find it especially difficult to control their expectations and form a feeling of their own motherhood. Clear communication and close relationships with family and staff were shown to be crucial in assisting moms in managing their stay in the hospital. In order to meet their specific demands, mothers emphasized the value of knowledge and used a range of information-seeking strategies [11].

All of the women spoke about how tough it was to become mothers, crying over premature births and taking care of both babies. Because everything seemed to happen so rapidly and the young ones were so little and premature.

Mothers saw a gap between the anticipated and actual assistance provided by medical staff. Although the medical staff saw the need for mothers' assistance, it was not their top concern, and they believed that the workload prevented mothers from providing care in the Neonatal Intensive Care Unit [12].

5. Implications for Practice and Education

Experiencing a premature birth with twins is incredibly challenging and has a strong emotional impact. For these women to complete this challenging journey, it is essential to offer them emotional support, resources, and information. Early intervention programs and developmental evaluations can also assist in addressing any possible developmental issues or concerns.

6. Conclusions

The Mothers of premature twins in the NICU have extensive needs for emotional support, which differ from family to family. It should be acknowledged that addressing these demands is a crucial problem that the NICU and its staff must overcome.

The study demonstrated mothers of premature twin's baby reported feeling anxious, fearful, and helpless for both babies and babies' admission at the NICU. Mothers required a lot of encouragement and support from the medical team to begin caring for their infants' basic needs. Parents would want professional assistance to balance these responsibilities with their desire to be close to their hospitalized infant, and such assistance necessitates a realistic knowledge of how much time parents are capable of spending at the NICU. Maybe there should be more emphasis on the quality of the time parents spend with their NICU baby than quantity.

Mothers were unprepared for the baby's early birth. They therefore faced issues including emotional distance and financial difficulty as a result of the emergency NICU stay. Therefore, health team members should focus more on easing mothers' concern by keeping them updated on the development of the child.

Further, the study concluded that although a mother-child attachment cannot be formed in the NICU, it can be achieved with the support of committed NICU health professionals who are committed to altering normal NICU nursing practice to take mothers' feelings into account.

Acknowledgements

I thank the coinvestigators for their expertise and assistance throughout the study. I also thank the hospital authority for permission and I also would like to thank the participants who helped us to share the experience.

Conflict of Interest

There is no conflict of interest.

Ethical Consideration

The Institutional Research Committee (IRC) gave its approval for this study to be carried out (IRC No SCON/07-19/02/2023). Both verbal affirmation and informed consent were used to notify research participants of the steps taken to preserve their privacy. Results from either individual or aggregated data cannot be traced back to a specific person. An ID tag that conceals the participant's identity was embedded into every piece of data that was gathered. This code cannot be identified by the participants' first names, last names, ages, or sexes. There is no information in the demographic questionnaire that might be used to identify any reader or user of the data. Additionally, the research subjects were informed of their ability to terminate the interview or leave the study at any moment.

Funding

Self-funding.

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