

# Innovations

## Experiences of Preterm Infant Mothers Regarding Hospitalization in the Neonatal Intensive Care Unit (NICU)

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### Abstract:

*Background: The neonatal period of new born infant is considered from birth to 28 days. Admission of the new-born infant in Neonatal Intensive Care Unit (NICU) leads to a stressful situation for parents resulting in escalating feelings of anxiety and distress.*

*Method: Total of 50 mothers were interviewed through self- developed questionnaire regarding their experiences of hospitalization in NICU by convenient sampling.*

*Result: 48 % mothers know the reasons behind admitting their child to neonatal ICU informed to them by medical personnel out of them only 28% mothers were made aware of the treatment that their child had received , Out of all mothers, 66% mothers mentioned that it was disturbing to see the appearance of their child in the NICU setup while 34% did not find it disturbing. 88% women were allowed and instructed to handle their baby in the NICU while 12% were not as the child would be critical, handling by mother would be difficult for herself to see her child with many cables or in post-surgical cases handling would be restricted.*

*Conclusion: All these mothers experience disturbed seeing their neonate inside the NICU while most of them were disturbed by their appearance along with heightened feelings of fear, stress and anxiety.*

**Key words:** *Mother's experience, NICU, Preterm, anxiety, caregiver stress, Hospitalization*

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**Introduction:**

The neonatal period of new born infant is considered from birth to 28 days. These 28 days of life are considered very crucial as the neonate is at an increased risk to survival. The neonates who are in need of intensive medical observation or care in these initial days are admitted to a special medical unit known as the Neonatal Intensive Care Unit- NICU. Those neonates who are born preterm that is before 37 weeks of gestational age, or those who have a low birth weight, twins, triplets and multiples who need early care, respiratory problems, cardiac problems, septic infections, birth defects and high risk neonates were admitted in NICU.<sup>1,2</sup>

Admission of the new-born infant in Neonatal Intensive Care Unit (NICU) leads to a stressful situation for parents resulting in escalating feelings of anxiety and distress. The initial encounter of the parents with their new-born maybe observing the infant in an isolated environment including incubators attached to multiple intravenous lines, respiratory support and leads attached to cardiac monitoring units. Because of the fragile state of the new-born, the parents usually may not touch or hold the infant. Also, because the emergency conditions that surround the mothers experience during labour and delivery, a cycle of negative emotions surface their psychological state like guilt, sadness, feelings of insufficiency, and the fear of losing their infant.<sup>3</sup>

By observing all this or the NICU for the first time the parents experience vivid emotions such as anxiety, uncertainty, stress, depression, mood swings, social isolation, difficulty in sharing their experience, sometimes also lack of support, helplessness and low self-esteem.<sup>4</sup> The physical environment of the ICU, noisy equipment, different chemical odours, monitoring devices, ward warning sounds, and ventilators can be intimidating to parents.

One reason among the most common reasons of NICU admission includes preterm birth which can be a stressful experience for them due to the unexpected or untimed delivery and the admission to the neonatal medical ICU. Premature birth can negatively affect the parent by reducing their self-esteem and confidence as premature babies are at risk of growth retardation and poor development due to poor mother-child bond, depression, anxiety, and fear of losing the child.<sup>5</sup> So, it is most important to assess the experiences of preterm infant mothers regarding their stay in NICU.

**Material and Methodology:**

The proposed study was forwarded to Ethics Committee for approval, Upon Ethical approval, this Cross-sectional study was conducted. Total of 50 mothers were interviewed through self- developed questionnaire by convenient sampling.

**Inclusion criteria:**

- Mother's Age: 18 to 45 years.
- Mothers of neonate who have been admitted to NICU and referred for early physiotherapy.

**Exclusion criteria:**

- Mothers with hearing deficits.
- Mothers whose neonate is not referred for early physiotherapy intervention.
- Mothers who are unwilling to participate.

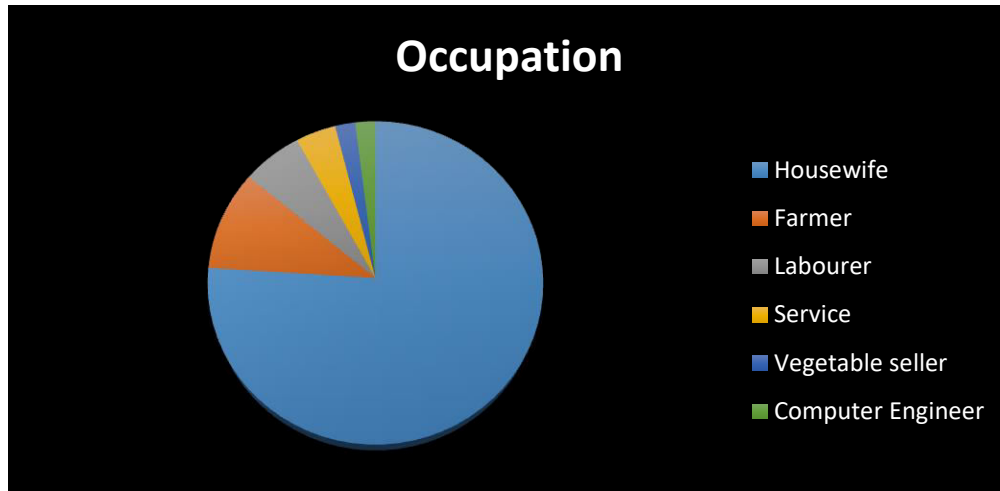


**Figure 01: Investigator with participant administering the questionnaire.**

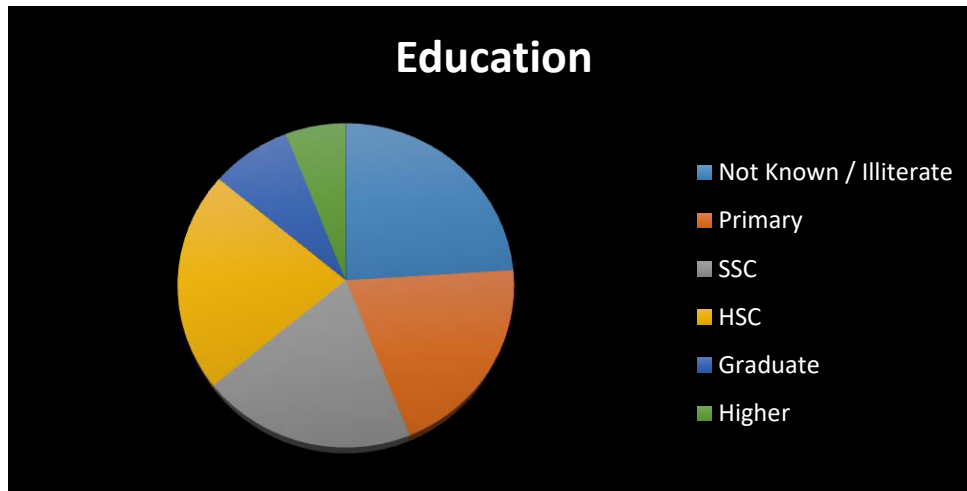
**Results**

The total Participants included were 50 mothers and the mean age of mothers were 25 years.

Baseline measurements of all participant's demographic details including distribution and cumulative percentages of all the mothers' occupation and education is as shown figure 2, 3.



**Figure 02: Frequency distribution of Occupation of participants**



**Figure 03: Frequency-wise distribution of participants' literacy level.**

**Table 1: Frequency and percent of Reasons regarding child's NICU admission.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	43	86.0	86.0	86.0
No	7	14.0	14.0	100.0
Total	50	100.0	100.0	

**Table 2: Frequency and percent of awareness of mother of the treatment their child would receive in NICU.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	14	28.0	28.0	28.0
No	36	72.0	72.0	100.0
Total	50	100.0	100.0	

**Table 3: Frequency and percent of mothers who were permitted to see and felt disturbed on seeing their child in the NICU?**

		Frequency	Percent	Valid Percent	Cumulative Percent
mothers were permitted to see their child	Yes	49	98.0	98.0	98.0
	No	1	2.0	2.0	100.0
mothers who disturbing when seeing child in NICU.	Yes	33	66.0	66.0	66.0
	No	17	34.0	34.0	100.0

**Table 4: Frequency and percent of mothers who were allowed/instructed to handle the baby and felt challenged while handling the baby in NICU.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Allowed to handle baby	Yes	44	88.0	88.0	88.0
	No	6	12.0	12.0	100.0
Mothers felt challenged handling	Yes	32	64.0	64.0	64.0
	No	18	36.0	36.0	100.0

**Table 5: Frequency and percent of mothers who felt that they had spent enough time with the baby because of that the bond with their baby was affected.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Spent Enough time	Yes	35	70.0	70.0	70.0
	No	15	30.0	30.0	100.0
Mothers' bond with their babies was affected	Yes	26	52.0	52.0	52.0
	No	24	48.0	48.0	100.0

**Discussion**

The present study was conducted to explore the experiences of mothers whose neonate were admitted in the Neonatal intensive care unit. In this study, mean age of females was 25.7 years with a standard deviation of 7.69 years, ranging from minimum age of 18 years and maximum 36 years, which appropriately falls in to the reproductive age category of females given by World Health Organization.<sup>6</sup> Among 50 mothers few mothers had owned jobs like computer engineer, teacher, ASHA and primary healthcare worker and others were housewives, farmers and labourers by

occupation (figure 01). From 50 mothers few of them had obtained primary and secondary education and majority number of females being illiterate (figure 02), many were found to be not having knowledge of their own accurate age, expected date of delivery and date of birth of their own child.

After that in the study we found from mothers the reasons behind admitting their child to neonatal ICU informed to them by medical personnel which were, 48 % of neonates being low birth weight (LBW), 42% were premature, 18 % had respiratory issues out of which many were later, on investigations found to be Multi inflammatory syndrome in neonates (MIS-N) Covid IgG positive, 18 % had an absent birth cry, 4% had pneumonia, 4% had respiratory distress syndrome, 4% had birth asphyxia 4% had neonatal convulsions, 4% had trachea-oesophageal fistula, 2% had meconium aspiration syndrome (MAS) , 2% had patent ductus arteriosus (PDA), 2% had congenital talipesquinovarus (CTEV), and other 2% had septic infections and fetal distress and 14% had no knowledge about the admission in NICU(Table 1) .

In this study, it was observed that only 28% mothers were made aware of the treatment that their child had received which were reported as for weight gain, oxygen support, incubation, blood transfusion and surgery and 72% mothers found to be unaware of what treatment their child would receive inside the NICU (Table 2).

In a study done by turner et al, they reported that one of the caregiver had mentioned that communication with NICU professionals made them positive, confident and felt supportive through education and information after having interactions with them.<sup>7</sup> It was also observed that 98% mothers had visited NICU to see their child and 2 % denied that they did not visited the NICU to see their child initially but later in last few days they had visited (Table 3). In a previous study by smith et al, they discussed that mothers going and seeing their child grow daily and seeing them get bigger helped them cope better. This had also helped them being better at feeding their baby and they felt good when their baby started to respond to them in their own way. Hence, it was necessary for them to see their child daily.<sup>8</sup>

Out of all mothers, 66% mothers mentioned that it was disturbing to see the appearance of their child in the NICU setup while 34% did not find it disturbing (Table 3). On the similar grounds in another study, in their semi structured interview one of the mothers stated that she did not feel that she was holding her own child while actually holding him as she was quite tense that what if the tubes or cables move and she was also afraid to move the child's head to look at him content-fully as it would upset the arrangement of respiratory tubes.<sup>7</sup> In one study, participants had mentioned to be felt overwhelmed seeing the NICU, many tubes, respirators and innumerable small cables and they were also found to be fearful to hurt their child.

Owing to this, the biggest fears of the mothers they said was to touch their child, get attached to the child and then leave the child alone and go out of the NICU as they were not allowed inside for long time.<sup>8</sup>

During the visits by the mother, they also mentioned that continuous sound of the monitors also scared them to a greater extent.<sup>9</sup> 88% women were allowed and instructed to handle their baby in the NICU while 12% were not as the child would be critical, handling by mother would be difficult for herself to see her child with many cables or in post-surgical cases handling would be restricted (table 4). Out of which 36% mothers found it challenging to handle the baby in the NICU setup while 64 % did not (table 4). Similarly, in a qualitative study, they had also found that the parent felt lack of self-confidence as the preterm birth of their child possessed many challenges to them specially for the primigravida parents.<sup>10</sup>

It was observed in our study that 70% women thought that they had spent enough time with their child in the NICU. Whereas 30% felt that they got lesser time to spend with their baby (table 5). There is an existing knowledge that the woman creates contact with her child during the pregnancy and the desire to be a mother promotes the beginning of a maternal-child relationship. To experience early contact during babyhood also promotes the feeling of attachment to the child. Fortunately, this attachment is not just developed during the first week, it progresses throughout the whole first year of the child.<sup>11, 12</sup> However, various studies have found that, starting motherhood with a sick child is a difficult task. The mother's anxiety about the child's health makes the attachment process more complicated. The interaction between mother and child becomes dependent on the health of the child. The mothers often were found turn off their emotions as a strategy to handle the situation and to protect themselves against a possible loss.<sup>13</sup> Parents whose children are admitted in the NICU are often in a very critical state of mind. The hospital environment is unfamiliar and the meeting with their sick child can also be terrifying. The delivery has often been traumatic and the parents have often missed the early skin-to-skin contact with their child.<sup>14,15</sup>

When the child is given care in the NICU, the mother experiences difficulties in establishing a close relationship with her child.

Overall, this study is one of the few studies conducted in developing countries and at the same time to be mindful of the emotional trauma that mothers, fathers and caregivers endure when their child is admitted to the NICU.



## **Conclusion**

The purpose of this study was to assess the experiences of mothers whose neonate is admitted to the NICU and referred for early physiotherapy intervention. All these mothers accompanied their neonate inside the NICU while most of them were disturbed by their appearance along with heightened feelings of fear, stress and anxiety.

They handled their child inside by spending enough time in the NICU with their sick neonate but most of them found it challenging to do so with a feeling of a disrupted bond with the neonate due to such unexpected admission which made the mother feel distanced due to the transition of the newborn from her lap to the glassed box.

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