

From Fear to Confidence: Emotional Intelligence, Social Support and Caring Efficacy among Mothers of Preterm Babies

Vijayalakshmi Natarajan¹, Shankar Shanmugam Rajendran²,
Kannan Kasinathan³, Muthukumar⁴, Kalaimani Thangamani⁵,
Sowmiya Bellora Benedict⁶, Siva Ragavan⁷

^{1,5,6,7} Post Graduate Nurse, ² Principal, ³ Associate Professor, ⁴ Professor of Neonatology, College of Nursing, Madras Medical College, (Affiliated to The TN Dr MGR Medical University, Chennai, Tamil Nadu, India).

⁴ Professor of Neonatology, Madras Medical College, ICH & HC, Egmore

Abstract

Preterm birth changes motherhood abruptly, often placing the first days of bonding and learning inside a neonatal intensive care unit. This mixed-methods study assessed emotional intelligence and perceived social support among mothers of preterm babies and explored how they developed caring efficacy. An explanatory sequential design was used at the neonatal intensive care unit of the Institute of Child Health, Chennai. Quantitative data were collected from 60 mothers using a socio-demographic questionnaire, clinical profile, Emotional Intelligence Test and Multidimensional Scale of Perceived Social Support. Six mothers participated in semi-structured interviews. Data were analyzed using descriptive statistics, the Pearson correlation coefficient, the chi-square test, and thematic analysis. The mean emotional intelligence score was 91.53 ± 6.94 out of 125, representing 73.22% of the total score. Thirty-seven mothers (61.67%) had high emotional intelligence and 23 (38.33%) had very high emotional intelligence. The mean social support score was 64.42 ± 5.43 out of 84, representing 76.69%; 36 mothers (60.00%) reported high support and 24 (40.00%) reported moderate support. Emotional intelligence and social support showed a significant positive fair correlation ($r = 0.38, p = 0.01$). Emotional intelligence was significantly associated with education, employment and residence, while social support was associated with education, birth order and previous preterm experience. Interviews revealed four themes: emotional turmoil after preterm birth, social support, caring efficacy and learning in daily caregiving tasks. Mothers moved from shock and fear to confidence when practical teaching and family support were available for safer discharge planning.

Keywords: Infant, Premature, Emotional Intelligence, Social Support, Self-efficacy, Intensive Care Units

1. Introduction

Preterm birth remains one of the most demanding events in maternal and neonatal care. Global estimates reported 13.4 million preterm births in 2020, with little measurable improvement in the worldwide rate during the previous decade [1]. Prematurity is not only a neonatal survival issue; it is also linked with prolonged hospitalization, feeding difficulties, developmental vulnerability and a long period of emotional

uncertainty for families. The global burden is concentrated in low- and middle-income regions, where preventable morbidity and mortality are strongly influenced by access to timely and skilled neonatal care [2]. In a tertiary neonatal unit, these clinical risks are accompanied by maternal separation, economic strain and fear about survival, growth and feeding.

For mothers, the birth of a preterm infant often disrupts the expected transition into motherhood. Instead of immediate home-based caregiving, mothers encounter incubators, monitors, feeding tubes and repeated professional instructions. Evidence shows that mothers of infants admitted to neonatal intensive care units experience high levels of anxiety, depression, acute stress reactions and altered parental roles [3]. These emotional responses can affect attachment, breastfeeding, confidence and the ability to participate actively in care. When mothers feel excluded from bedside care, fear may persist even after the infant becomes clinically stable.

Emotional intelligence may help mothers recognize fear, regulate stress and respond more calmly to their infant's needs. A study among mothers of premature infants found that emotional intelligence was positively associated with breastfeeding self-efficacy and inversely associated with stress [4]. Social support is equally important. Mothers of preterm infants with stronger emotional and functional support report fewer depressive symptoms and better attachment during the first year after discharge [5]. During neonatal intensive care admission, spousal, family, and professional support can buffer psychological distress and promote family-centered care [6].

Caring efficacy is the practical expression of this emotional and social readiness. It includes confidence in handling a small baby, feeding, maintaining warmth, recognizing danger signs and asking for help at the right time. However, emotional intelligence, social support and caring efficacy are often studied separately. In clinical practice, these factors interact continuously. A mother who can regulate emotions may seek help more effectively; a mother who is supported may learn skills faster; and repeated guided practice can transform fear into caregiving confidence. This study assessed emotional intelligence and perceived social support among mothers of preterm babies, examined their relationship, identified selected associated variables and explored mothers' lived experiences in developing caring efficacy.

2. Materials and Methods

An explanatory sequential mixed-methods design was adopted. The quantitative phase used a descriptive survey design, and the qualitative phase used a phenomenological approach. The study was conducted in the neonatal intensive care unit of the Institute of Child Health, Chennai, for a period of 4 weeks. The quantitative sample included 60 mothers of preterm babies selected by non-probability convenience sampling. For the qualitative phase, six mothers were selected purposively after quantitative data collection to share detailed caregiving experiences. Mothers who had delivered preterm babies admitted to the neonatal intensive care unit, were willing to participate, and could understand Tamil or English were included. Mothers who were critically ill, had severe cognitive impairment, were participating in another study, or whose babies were critically ill during data collection were excluded.

Data were collected using a socio-demographic questionnaire, clinical variables sheet, Emotional Intelligence Test and Multidimensional Scale of Perceived Social Support. The Emotional Intelligence

Test measured self-awareness, emotion management, motivation, empathy and social skills on a five-point scale, with higher scores indicating better emotional intelligence. The Multidimensional Scale of Perceived Social Support measured perceived support from family, friends and significant others on a seven-point scale. The semi-structured interview explored daily care, emotional responses, support systems, confidence building and suggestions for better maternal support.

Quantitative data were analysed using mean, standard deviation, frequency, percentage, Karl Pearson correlation and chi-square test. Statistical significance was considered at p less than or equal to 0.05. Qualitative interviews were audio-recorded, transcribed verbatim, translated where required and analysed thematically through repeated reading, coding, category formation and theme development. Ethical approval and institutional permission were obtained. Written informed consent, confidentiality and voluntary participation were ensured throughout the study.

3. Results

Among the 60 mothers, 31 (51.67%) were aged 21-25 years and 27 (45.00%) were aged 26-30 years. Most mothers had a monthly family income below Rs.20,000 (52, 86.67%), 29 (48.33%) had higher secondary education, and 24 (40.00%) were homemakers. Nuclear families formed the largest group (35, 58.33%), and 37 mothers (61.67%) lived in urban areas. For 33 mothers (55.00%), the preterm baby was the first child. Previous experience with preterm birth was absent in 47 mothers (78.33%), and 58 (96.67%) had not attended parenting classes. These findings show that most participants were young mothers with limited prior exposure to premature infant care.

Clinically, 35 babies (58.33%) were born at 28-32 weeks of gestation and 20 (33.33%) at less than 28 weeks. Birth weight was below 1000 g in 29 babies (48.33%) and 1000-1499 g in 31 (51.67%). Normal vaginal delivery was reported by 27 mothers (45.00%), while 19 (31.67%) had caesarean section and 10 (16.67%) had emergency caesarean section. Most babies stayed in the neonatal intensive care unit for 1-2 weeks (36, 60.00%); feeding issues were reported for 37 babies (61.67%). Thus, the sample represented mothers caring for infants with considerable nutritional and developmental vulnerability.

Table 1: Summary of Key Quantitative Findings

Variable	Value	Interpretation
Emotional intelligence score	91.53 + 6.94 / 125 (73.22%)	High overall emotional intelligence
Level of emotional intelligence	High: 37 (61.67%); Very high: 23 (38.33%)	No mother scored low or moderate
Perceived social support score	64.42 + 5.43 / 84 (76.69%)	High overall perceived support
Level of perceived support	Moderate: 24 (40.00%); High: 36 (60.00%)	No mother reported low support
Correlation	r = 0.38, p = 0.01	Significant positive fair correlation
Major associated variables	EI: education, employment, residence; Support: education,	Statistically significant at p = 0.05

	birth order, previous preterm experience	
--	--	--

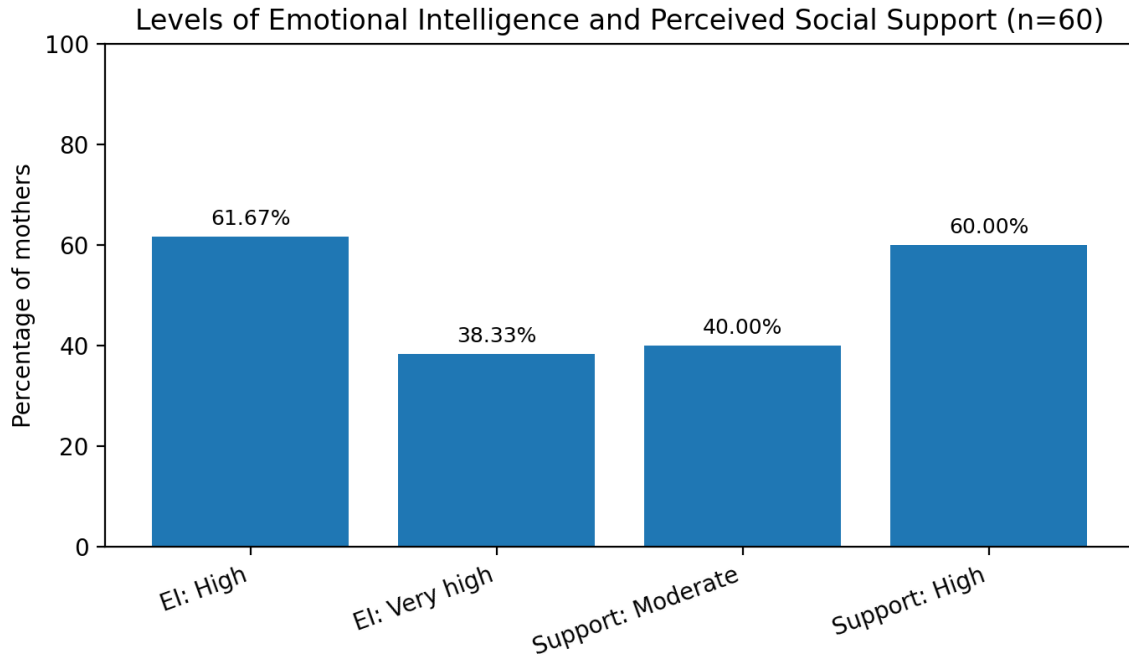


Figure 1: Levels of Emotional Intelligence and Perceived Social Support

The total emotional intelligence mean score was 91.53 ± 6.94 out of 125 (73.22%). Thirty-seven mothers (61.67%) had high emotional intelligence and 23 (38.33%) had very high emotional intelligence. The total perceived social support mean score was 64.42 ± 5.43 out of 84 (76.69%); 24 mothers (40.00%) had moderate support and 36 (60.00%) had high support. Emotional intelligence and social support showed a significant positive fair correlation ($r = 0.38, p = 0.01$). Emotional intelligence was significantly associated with education, employment and residence. Perceived social support was significantly associated with education, birth order and previous experience with preterm birth. None of the clinical variables showed a significant association with emotional intelligence or perceived support.

Thematic analysis generated four themes. Mothers described emotional turmoil after preterm birth through shock, fear, guilt, self-blame and comparison with term infants. Social support, especially from husbands and extended family, reduced fear and helped mothers continue daily care. Caring efficacy developed mainly through doctors' and nurses' explanations, practical demonstrations and repeated practice. Daily caregiving tasks initially created fear because the baby appeared tiny and fragile, but confidence increased gradually as mothers learned feeding, lifting, observation and comfort measures. Mothers also requested clearer emergency guidance, written instructions and awareness programmes before discharge.

4. Discussion

The present study found uniformly high or very high emotional intelligence among mothers of preterm babies and moderate-to-high perceived social support. The positive correlation between the two variables suggests that mothers who understand and regulate their emotions may also identify, accept and use

supportive relationships more effectively. This finding is clinically relevant because post-discharge studies show that social support is strongly associated with lower depression, anxiety and post-traumatic stress symptoms among mothers of preterm infants [7].

The association of education with both emotional intelligence and social support may reflect better access to information, communication confidence and ability to interpret professional guidance. Nurse partnership and social support have also been reported as contributors to discharge readiness among mothers of premature infants [8]. In this study, previous experience with preterm birth was significantly linked with higher perceived support, possibly because experienced mothers knew where to seek help and how to involve family members. The absence of significant clinical associations suggests that maternal emotional and social resources may depend more on personal and family context than on gestational age, birth weight or length of stay alone.

The qualitative findings explained the statistical results. Mothers entered the neonatal intensive care setting with shock, fear and self-blame, but support from spouses, relatives and staff helped them regain control. The five dimensions of maternal care ability described in previous qualitative work--maternal identity, infant needs, cognitive ability, technical ability and psychological ability--were reflected in the present themes [9]. Similar low-resource evidence also describes constant worry, feeding difficulties, communication gaps and social judgement among mothers of preterm babies [10].

The study further showed that caring efficacy was not a fixed trait; it developed through repeated practice and reassurance. Evidence on parents of premature infants indicates that resilience, coping and social support are closely connected to psychological growth after neonatal stress [11]. Training programmes for mothers with preterm infants have also improved maternal role adaptation and self-esteem [12]. The single-centre setting, brief data-collection period and small qualitative sample limit generalisation. Nevertheless, the findings support nursing interventions that combine emotional screening, family involvement, hands-on skill teaching, written guidance and post-discharge contact rather than relying only on verbal instructions at discharge.

5. Implications for Nursing Practice

Neonatal nurses can use these findings to identify mothers who may need additional emotional and practical preparation. Screening should include not only clinical readiness of the baby but also the mother's confidence, available support and understanding of daily care. Short bedside demonstrations on feeding, holding, temperature maintenance and danger signs should be repeated until the mother performs them confidently. Written instructions in Tamil or English, emergency contact information and follow-up calls can reduce uncertainty after discharge. Husbands and close relatives should be included in teaching sessions because family support directly shapes maternal confidence. A structured maternal support programme within the neonatal intensive care unit may strengthen emotional regulation, social support and caring efficacy together.

6. Conclusion

Mothers of preterm babies in this study demonstrated high emotional intelligence and moderate-to-high perceived social support. Both variables were positively correlated and supported the gradual development

of caring efficacy. Although mothers initially experienced fear, guilt and uncertainty, family support and practical guidance from healthcare professionals helped them gain confidence. Structured, family-centered neonatal nursing care is essential to strengthen maternal resilience and safe home caregiving.

7. Conflict of Interest

The authors declare no conflict of interest.

8. Acknowledgement

I offer my humble gratitude to the Almighty for blessing me with the wisdom, perseverance, and strength required to complete this study. I am deeply indebted to Prof. (Dr.) R. Shankar Shanmugam for his constant mentorship, constructive guidance, and unwavering support throughout my research journey. I sincerely acknowledge the faculty members for their valuable suggestions and continuous academic support. I extend my sincere appreciation to the hospital administration and staff for granting permission and providing the necessary cooperation for conducting this study. I am profoundly grateful to all the mothers who willingly participated and openly shared their experiences, without whom this study would not have been possible. Lastly, I express my heartfelt thanks to my family for their motivation, encouragement, and moral support at every stage of this work.

References

1. Ohuma EO, Moller AB, Bradley E, Chakwera S, Hussain-Alkhateeb L, Lewin A, Okwaraji YB, Mahanani WR, Johansson EW, Lavin T, Fernandez DE. National, regional, and global estimates of preterm birth in 2020, with trends from 2010: a systematic analysis. *The Lancet*. 2023 Oct 7;402(10409):1261-71.
2. Walani SR. Global burden of preterm birth. *International Journal of Gynecology & Obstetrics*. 2020 Jul;150(1):31-3.
3. Deshwali A, Dadhwal V, Vanamail P, Sagar R, Sharma A, Agarwal R, Malhotra N, Bharti J. Prevalence of mental health problems in mothers of preterm infants admitted to NICU: A cross-sectional study. *International Journal of Gynecology & Obstetrics*. 2023 Mar;160(3):1012-9.
4. Arshadi Bostanabad M, Hosseinzadeh M, Molazemi Z, Namdar Areshtanab H. Emotional intelligence and stress and their relationship with breastfeeding self-efficacy in mothers of premature infants. *BMC Women's Health*. 2024 Jan 3;24(1):15.
5. Leahy-Warren P, Coleman C, Bradley R, Mulcahy H. The experiences of mothers with preterm infants within the first-year post discharge from NICU: social support, attachment and level of depressive symptoms. *BMC pregnancy and childbirth*. 2020 Apr 29;20(1):260.
6. Kestler-Peleg M, Stenger V, Lavenda O, Bendett H, Alhalel-Lederman S, Maayan-Metzger A, Strauss T. "I'll Be There": informal and formal support systems and mothers' psychological distress during NICU hospitalization. *Children*. 2022 Dec 13;9(12):1958.
7. Haeusslein L, Gano D, Gay CL, Kriz RM, Bisgaard R, Vega M, Cormier DM, Joe P, Walker V, Kim JH, Lin C. Relationship between social support and post-discharge mental health symptoms in mothers of preterm infants. *Journal of reproductive and infant psychology*. 2023 May 27;41(3):260-74.



8. Yoon S, Park J, Lee H, Min A. Influence of partnerships with nurses and social support on readiness for discharge among mothers of premature infants. *Child Health Nursing Research*. 2019 Oct 31;25(4):417.
9. Tajalli S, Parvizy S, Ebadi A, Zamaniashiani F, Kenner C. Understanding the experience of the mothers' ability to take care of their preterm infants related to in-hospital and post-discharge: a qualitative content analysis. *BMC pediatrics*. 2025 Jan 29;25(1):72.
10. Telfer MR, Railton D. Treatment of post-traumatic nasal deformity. *British Journal of Oral and Maxillofacial Surgery*. 1994 Oct 1;32(5):334.
11. Wang F, Zhang S, Liu C, Ni Z. Post-traumatic growth and influencing factors among parents of premature infants: a cross-sectional study. *BMC psychology*. 2023 Nov 10;11(1):388.
12. Sohrabi M, Azizzadeh forouzi M, Mehdipour-Rabori R, Bagherian B, Nematollahi M. The effect of a training program on maternal role adaptation and self-esteem of mothers with preterm infants: a quasi-experimental study. *BMC women's health*. 2021 Aug 11;21(1):296.