

Unfolding Motherhood: Birth Experience, Mood and Bonding

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Abstract

Childbirth is a transformative experience, especially for primipara (first-time) mothers who may face heightened emotional and psychological challenges. Globally, maternal mood disturbances and impaired mother-infant bonding pose risks to both maternal mental health and infant development. This study explores the childbirth experiences of primipara mothers and examines the interplay between mother-infant bonding and postpartum mood status, emphasizing the role of family support and nursing care in fostering positive outcomes.

Objectives: The study aimed to explore maternal childbirth experiences of primipara mothers, assess levels of mother-infant bonding and postpartum mood status, examine the correlation of mother-infant bonding and postpartum mood status, examine the association between bonding and mood with demographic and obstetric variables and Integration of qualitative and quantitative findings

Materials & Methods: A mixed-methods design with an exploratory sequential approach was used. Data were collected at the Institute of Obstetrics and Gynaecology, Chennai. Tools included a semi-structured interview guide, the Mother-Infant Bonding Scale (MIBS), and the Positive and Negative Affect Schedule – Short Form (PANAS-SF). Data were analysed thematically and statistically using SPSS, ensuring rigor, triangulation, and ethical compliance.

Results: A majority of mothers (43.33%) were aged 21–25 years, and 56.67% had low-income status. Most (93.34%) had term deliveries, 98.33% attended antenatal care, and all practiced exclusive breastfeeding. Qualitative findings revealed key emotional themes: anxiety, distress, and critical support from nurses and families. Quantitatively, 80% of mothers demonstrated high bonding, and 76.78% had moderate postpartum mood levels. None scored low in either domain. A statistically significant negative correlation was found between bonding and postpartum mood ($r = -0.42$, $p = 0.01$), indicating that stronger bonding was associated with fewer mood disturbances. Significant associations were found between

bonding and age, residence, and postnatal support; mood status correlated with age and education. Integration of findings highlighted that family support and maternal age critically influence bonding and emotional health.

Conclusion: Primipara mothers generally exhibit strong bonding and stable mood, supported by familial and professional care. Targeted interventions enhancing support systems can further improve maternal-infant outcomes and emotional resilience.

Keywords: Primipara mothers, Mother-infant bonding, Postpartum mood, Childbirth experience, Mixed-methods study

1. INTRODUCTION

Childbirth remains a crucial public health indicator, reflecting broader societal, economic, and healthcare dynamics. Primipara mothers often report deeply emotional and complex experiences. A qualitative study in a community health centre in Uttar Pradesh found that first-time mothers frequently experienced low self-esteem, shaped by feelings of self-blame, diminished confidence, and emotional ambivalence during labour (Bist et al., 2023).

In 2023, WHO reported approximately 134.3 million live births globally, with a crude birth rate of 17 per 1,000 population and a total fertility rate of 2.3 births per woman, signaling a steady decline toward replacement level. India recorded approximately 23.2 million births, maintaining its position as the country with the highest number of births globally.

2. NEED OF THE STUDY

The transition to motherhood, especially for primipara women, presents unique psychological and physiological challenges that significantly influence maternal and neonatal outcomes. Globally, postpartum mood disorders remain a leading concern, with recent meta-analyses estimating the prevalence of postpartum depression (PPD) at around 19.2%, reflecting a noticeable increase compared to previous years (Zhang et al., 2024).

3. STATEMENT OF PROBLEM

A mixed-method study to explore Maternal Child birth experience, Mother infant bonding and Postpartum Mood status among primipara mothers in selected Tertiary Care Hospital, Chennai

RESEARCH QUESTION

How do primipara mothers perceive and describe their childbirth experience, including physical, emotional, and psychological aspects?

DELIMITATION

- The study was conducted only in primipara mothers
- Conducted in a single setting i.e. IOG, Chennai
- Data was collected based on self-reported questions

4. MATERIALS & METHODS

In this study a mixed-methods design with an exploratory sequential approach was used. Non-probability purposive sampling technique was used in qualitative part and Non-probability Convenience sampling technique was used in quantitative part. The qualitative phase involved phenomenological interviews with six primipara mothers; it used a descriptive design with 60 participants. Data were collected at the IOG, Chennai. Tools included a semi-structured interview guide, the Mother-Infant Bonding Scale (MIBS), and the Positive and Negative Affect Schedule – Short Form (PANAS-SF). Data were analysed thematically and statistically using SPSS, ensuring rigor, triangulation, and ethical compliance.

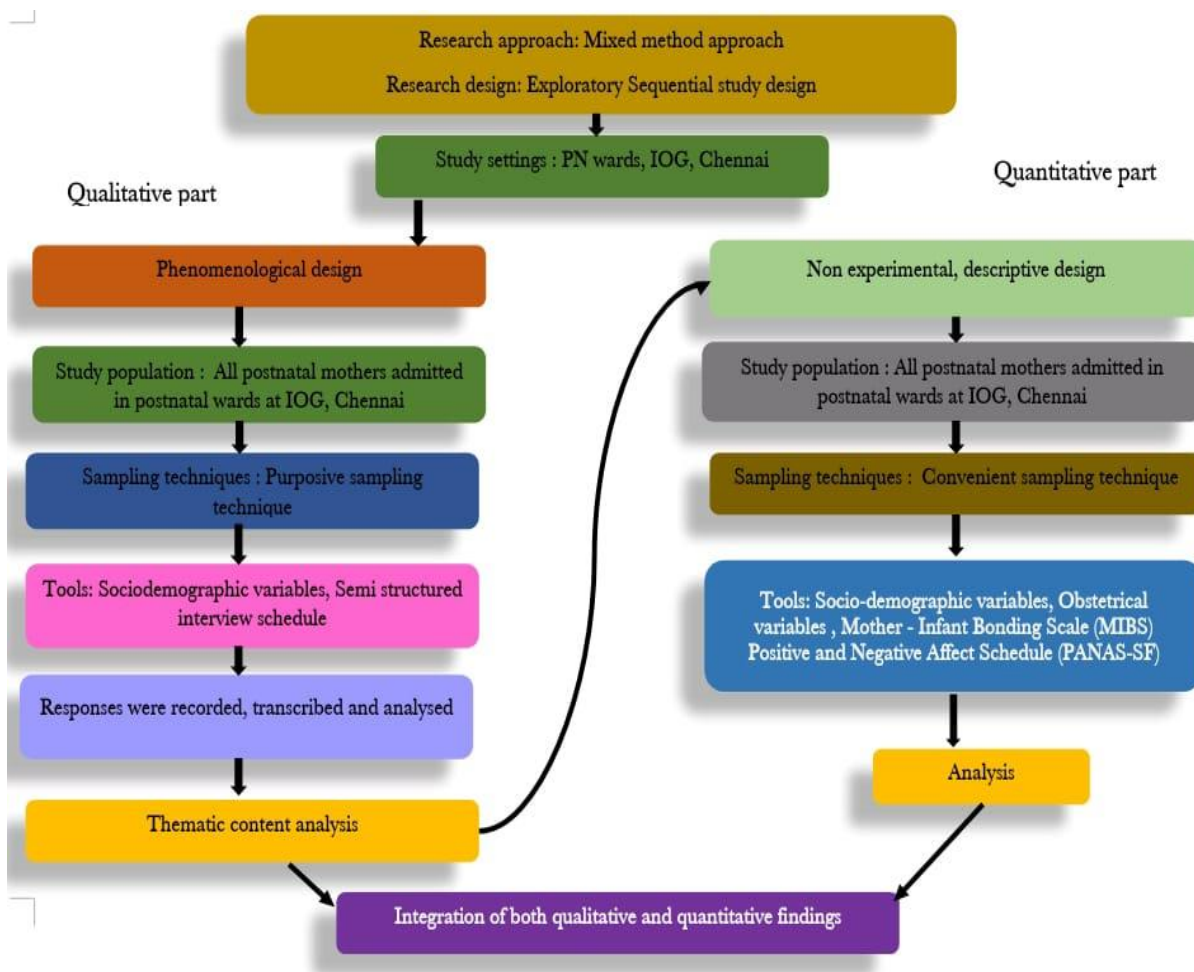
5. ETHICAL CONSIDERATION

Ethical approval was obtained from the Institutional Ethics Committee of Madras Medical College, Chennai. Permission was also taken from the Director of IOG, Chennai. Informed written consent was collected from all participants after explaining the purpose of the study. All steps were taken to ensure the rights, safety, and dignity of the participants were respected.

6. SCHEMATIC REPRESENTATION OF THE STUDY

ORGANISATION OF DATA

SECTION I:



It deals with the Sociodemographic and obstetrical variables of the primipara mothers in the qualitative part

SECTION II:

It deals with the maternal childbirth experiences of primipara mothers

SECTION III:

It deals with the Sociodemographic and obstetrical variables of the primipara mothers in the quantitative part

SECTION IV:

It deals with the level of mother infant bonding and postpartum mood status among primipara mothers

SECTION V:

It deals with the correlation of the mother-infant bonding and postpartum mood status among primipara mothers

SECTION VI:

It deals with the association of the level of mother-infant bonding and postpartum mood status with selective demographic and obstetrical variables.

Table 1. SOCIODEMOGRAPHIC VARIABLES OF THE STUDY PARTICIPANTS IN QUALITATIVE PART

Participants	Age in yrs	Education	Occupation	Family Income	Type of Family	Gestational Age	Breastfeeding Status	Mode of Delivery	Mode of Conception	Baby's Gender
Participant 1	3 yrs	.A	Private	Rs. 20000	Nuclear	8 wks	BF	Normal	Natural	Male child
Participant 2	6	Sc	Home maker	Rs.15000	Joint	9 wks	BF	SCS	Natural	Female child
Participant 3	8	Sc	Private	Rs.15000	Joint	7 wks	BF	Normal	Natural	Male child
Participant 4	9 yrs	A	Home maker	Rs. 20000	Nuclear	8 wks	BF	Normal	Natural	Female child
Participant 5	10 yrs	2 th STD	Home maker	Rs.15000	Nuclear	4 wks	BF	Normal	Natural	Male child
Participant 6	3 yrs	.E	Home maker	Rs.15000	Joint	5wks	BF	SCS	Natural	Female child

Table 2. THEMES, SUBTHEMES AND NARRATIONS

S.NO	THEMESSS	SUB THEMES	NARRATION
1.	INITIAL PHASE	First-time Anxiety	Anxiety is common in first-time mothers, affecting emotional well-being, bonding, and birth experience. Perinatal anxiety requires early recognition, support, and care
		Desire for Normalcy	Normal delivery is a natural yet challenging process for first-time mothers. Preparation and education enhance positive experiences and satisfaction.
		Disappointment	Mothers and families often expect a healthy baby, normal delivery, and maternal well-being. Unmet expectations can cause significant disappointment and emotional distress.
2.	DISTRESSS	Pain Management	Labor pain is especially intense for first-time mothers due to inexperience. Effective pain management, tailored to individual needs, along with emotional support and education.
		Fear	Fear inevitable, especially labor pain; negative stories, lack of knowledge heighten fear, slowing intensifying pain, complicating birth. Need education, support, pain-management awareness for empowered decisions.
3.	SUPPORT	Hospital care	Hospital care is crucial for first-time mothers during labor. Supportive staff, clear communication, and involvement in decision-making empower mothers, ease fears, and improve outcomes.
		Positive interaction	Positive interaction during labor reduces stress and enhances the childbirth experience for first-time mothers. Kind communication and

			emotional support from hospital staff improve labor progress, strengthen mother-infant bonding, and support postpartum mental well-being.
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Table 3: DEMOGRAPHIC VARIABLES OF THE PRIMIPARA MOTHERS

Demographic variables		primipara mothers(n=60)	%
Age of the mother (in years)	21-25 years	26	43.33%
	26-30 years	23	38.34%
	31-35 years	9	15.00%
	>35 years	2	3.33%
Educational Qualification	Informal education	0	0.00%
	Primary education	5	8.33%
	Higher Secondary education	25	41.67%
	Graduate and above	30	50.00%
Occupation of the mother	Unskilled	34	56.67%
	Semi-skilled	7	11.67%
	Skilled	11	18.33%
	Profession	8	13.33%
Monthly Family Income	Less than Rs.10,000	8	13.33%
	Rs.10,001 – Rs.20,000	34	56.67%
	Rs.20,001 – Rs.30,000	15	25.00%
	Above Rs.30,001	3	5.00%
Mother's Residence	Rural	18	30.00%
	Semi-Urban	16	26.67%
	Urban	26	43.33%
Religion	Hindu	47	78.33%
	Muslim	4	6.67%
	Christian	9	15.00%
Postnatal Support System (Presence of caregiver)	Mother/Mother-in-law	53	88.33%
	Other relatives	7	11.67%
	Friends	0	0.00%
	No support	0	0.00%

Table 3 presented the demographic variables of primipara mothers (n=60). The majority of the mothers were aged between 21-25 years (43.33%) and most had attained graduate-level or higher education (50.00%). A significant proportion were engaged in unskilled occupations (56.67%) and had a monthly family income ranging from Rs.10,001 to Rs.20,000 (56.67%). The highest number of

participants resided in urban areas (43.33%) and followed the Hindu religion (78.33%). Regarding postnatal support, the majority were supported by their mother or mother-in-law (88.33%).

Table 4: OBSTETRIC VARIABLES OF THE PRIMIPARA MOTHERS

Obstetric variables		primipara mothers(n=60)	%
OB1 Gestational Age at Delivery	Preterm	2	3.33%
	Term	56	93.34%
	Post-term	2	3.33%
Mode of Delivery	Normal vaginal delivery	35	58.33%
	Assisted vaginal delivery	1	1.67%
	Caesarean section	24	40.00%
Baby's Gender	Male	24	40.00%
	Female	36	60.00%
Type of antenatal Care	Regular antenatal visits	59	98.33%
	Irregular antenatal visits	1	1.67%
	No antenatal care	0	0.00%
Breastfeeding Status	Exclusive breastfeeding	60	100.00%
	Mixed feeding (breastmilk + formula)	0	0.00%
	Formula feeding only	0	0.00%
Planned or Unplanned Pregnancy	Planned	55	91.67%
	Unplanned	5	8.33%
Mode of Conception	Natural conception	60	100.00%
	Assisted reproductive technology (IVF/IUI)	0	0.00%

Table 4. described the obstetric variables of primipara mothers. Most mothers delivered at term (93.34%) and had normal vaginal deliveries (58.33%). A higher proportion gave birth to female babies (60.00%). Nearly all mothers had regular antenatal visits (98.33%) and exclusively breastfed their babies

(100.00%). The majority of pregnancies were planned (91.67%) and all were conceived naturally (100.00%).

SECTION IV:

Table 5: EACH STATEMENTWISE MOTHER-INFANT BONDING SCORE

	statements	VERY MUCH		A LOT		A LITTLE		NOT AT ALL	
		n	%	n	%	n	%	n	%
1	Loving	53	88.33%	6	10.00%	1	1.67%	0	0.00%
2	Resentful	51	85.00%	6	10.00%	2	3.33%	1	1.67%
3	Neutral or felt nothing	25	41.67%	11	18.33%	18	30.00%	6	10.00%
4	Joyful	48	80.00%	10	16.67%	1	1.67%	1	1.67%
5	Dislike	57	95.00%	1	1.67%	1	1.67%	1	1.67%
6	Protective	37	61.67%	22	36.67%	1	1.67%	0	0.00%
7	Disappointed	54	90.00%	4	6.67%	0	0.00%	2	3.33%
8	Aggressive	3	5.00%	10	16.67%	22	36.67%	25	41.67%

Table 5 showed that most primipara mothers experienced strong positive emotions toward their infants. The majority felt loving (88.33%), joyful (80.00%), protective (61.67%), and not resentful (85.00%) or disappointed (90.00%). Negative emotions like dislike and aggression were rare, though a few expressed neutrality or slight aggression. Emotional support and understanding were crucial, as some mothers felt overwhelmed.

Table 6: EACH STATEMENTWISE PERCENTAGE OF MOTHER-INFANT BONDING SCORE

	statements	Maximum score	Mean	SD	of mean score
1	Loving	3	.13	.39	4.33%
2	Resentful	3	.22	.58	7.33%

Table 7: PERCENTAGE OF MOTHER INFANT BONDING SCORE

	Max score	Mean bonding score	% of mean score
score	24	4.50±1.47	18.75%

Table 7 indicated that the maximum possible mother-infant bonding score was 24, while the mean bonding score among participants was 4.50 with a standard deviation of ±1.47. The percentage of the mean score was 18.75%.

Table 8: Positive and Negative Affect Schedule score

	Statements	1		2		3		4		5	
		n	%	n	%	n	%	n	%	n	%
1	Interested	0	0.00%	1	1.67%	13	21.67%	19	31.67%	27	45.00%
2	Distressed	48	80.00%	6	10.00%	1	1.67%	4	6.67%	1	1.67%
3	Excited	0	0.00%	4	6.67%	6	10.00%	8	13.33%	42	70.00%
4	Upset	50	83.33%	3	5.00%	5	8.33%	0	0.00%	2	3.33%
5	Strong	4	6.67%	15	25.00%	18	30.00%	8	13.33%	15	25.00%
6	Guilty	49	81.67%	6	10.00%	3	5.00%	1	1.67%	1	1.67%
7	Scared	22	36.67%	19	31.67%	6	10.00%	7	11.67%	6	10.00%
8	Hostile	43	71.67%	9	15.00%	6	10.00%	0	0.00%	2	3.33%
9	Enthusiastic	1	1.67%	1	1.67%	7	11.67%	8	13.33%	43	71.67%
10	Proud	6	10.00%	1	1.67%	6	10.00%	16	26.67%	31	51.67%
11	Irritable	50	83.33%	4	6.67%	3	5.00%	2	3.33%	1	1.67%
12	Alert	19	31.67%	11	18.33%	7	11.67%	15	25.00%	8	13.33%
13	Ashamed	42	70.00%	10	16.67%	4	6.67%	2	3.33%	2	3.33%
14	Inspired	4	6.67%	11	18.33%	19	31.67%	7	11.67%	19	31.67%
15	Nervous	40	66.67%	11	18.33%	3	5.00%	4	6.67%	2	3.33%
16	Determined	29	48.33%	8	13.33%	7	11.67%	5	8.33%	11	18.33%
17	Attentive	15	25.00%	3	5.00%	4	6.67%	14	23.33%	24	40.00%
18	Jittery	45	75.00%	5	8.33%	3	5.00%	3	5.00%	4	6.67%

19	Active	9	15.00%	19	31.67%	19	31.67%	7	11.67%	6	10.00%
20	Afraid	36	60.00%	9	15.00%	5	8.33%	6	10.00%	4	6.67%

Table 8 revealed that most primipara mothers reported high levels of negative emotions such as distress (80.00%), upset (83.33%), guilt (81.67%), irritability (83.33%), and nervousness (66.67%). Positive emotions like excitement (70.00%), enthusiasm (71.67%), and pride (51.67%) were also present. Feelings of fear, hostility, and being jittery were notable, indicating a mixed emotional state during the postpartum period.

Table 9: Positive and Negative Affect Schedule score

sno	statements	Maximum score	Mean	SD	% of mean score
1	Interested	4	4.20	.84	58.67%
2	Distressed	4	1.40	.94	61.67%
3	Excited	4	4.47	.93	62.00%
4	Upset	4	1.35	.90	65.00%
5	Strong	4	3.25	1.27	63.33%
6	Guilty	4	1.32	.79	64.00%
7	Scared	4	2.27	1.34	61.67%
8	Hostile	4	1.48	.93	58.33%
9	Enthusiastic	4	4.52	.89	60.67%
10	Proud	4	4.08	1.27	59.67%
11	Irritable	4	1.33	.86	63.00%
12	Alert	4	2.70	1.48	64.33%
13	Ashamed	4	1.53	1.00	56.00%
14	Inspired	4	3.43	1.29	62.67%
15	Nervous	4	1.62	1.08	59.33%
16	Determined	4	2.35	1.58	61.67%
17	Attentive	4	3.48	1.64	59.33%
18	Jittery	4	1.60	1.21	62.00%
19	Active	4	2.70	1.17	62.00%
20	Afraid	4	2.21	1.30	60.00%

TOTAL	80	51.30	9.06	64.13%
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Table 9 showed the affect among primiparous mothers. Mean percentages indicated elevated negative emotions: upset ranked highest at 65.00%, followed by alertness (64.33%), guilt (64.00%), strong feelings (63.33%), and excited (62.00%). Distress, nervousness, and determined responses all exceeded 59%. Positive affects such as enthusiasm (60.67%), pride (59.67%), and interest (58.67%) remained moderate. Hostility and shame scored lowest among negatives. The overall mean score reached 64.13%, reflecting predominately moderate-to-high emotional activation.

Table 10: LEVEL OF MOTHER-INFANT BONDING SCORE

Level of bonding score	No. of patients	%
Low	0	0.00%
Moderate	12	20.00%
High	48	80.00%
Total	60	100.00%

Table 10 showed that the majority of primipara mothers (80.00%) had a high level of mother-infant bonding, while 20.00% demonstrated a moderate level. None of the participants exhibited a low bonding score.

7. NURSING IMPLICATION:

NURSING PRACTICE:

- Nurses should provide emotional support to first-time mothers to reduce anxiety and fear during childbirth.
- Encouraging and guiding mothers in breastfeeding and skin-to-skin contact can improve bonding with their newborns.
- Using both emotional support and medical care together can help first-time mothers adjust better after childbirth.

NURSING EDUCATION:

- Curricula must emphasize the importance of mother-infant bonding and the nurse’s role in promoting it through early interventions.
- Simulation and case-based learning should be used to help students understand real-life childbirth experiences and emotional responses.
- Courses should cover evidence-based practices like skin-to-skin contact and breastfeeding support that enhance bonding.

NURSING MANAGEMENT:

- Nursing managers should ensure adequate staffing in maternity wards to provide personalized care and emotional support to primipara mothers.

- Policies must be developed to include routine screening for postpartum mood disorders as part of standard care.
- Nursing managers should facilitate collaboration between maternity nurses and mental health professionals for early intervention.

NURSING RESEARCH:

- Qualitative studies can be conducted to gain deeper insights into first-time mothers' emotional experiences during labor.
- Comparative studies can evaluate different models of care and their impact on bonding and mood status.
- Nursing research should investigate barriers to postnatal mental health screening and ways to overcome them.

RECOMMENDATIONS:

- Long-term follow-up studies can be done to see how bonding and mood affect child growth.
- Educational programs for first-time mothers can be developed and tested for their usefulness.
- Technology-based support like mobile apps or videos can be explored to guide new mothers.

LIMITATIONS:

- The study was limited to a single hospital i.e. IOG, Chennai
- The sample size was small i.e. 60 primipara mothers
- Only primipara mothers were included in the study

8. CONCLUSION:

The study concluded that primipara mothers experience a range of emotional and psychological challenges during childbirth, including anxiety, fear, and distress. However, supportive care from nurses and family members significantly improved their emotional well-being and mother-infant bonding. A moderate negative correlation between postpartum mood status and bonding highlighted the need for emotional support and early mental health screening. Sociodemographic factors like age, education, and family support played a vital role in influencing bonding and mood. The integration of qualitative and quantitative findings emphasized the importance of holistic, empathetic nursing care in improving maternal outcomes.

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