

“A MIXED METHOD STUDY TO UNDERSTAND LACTATION FAILURE AMONG LACTATING MOTHERS IN SELECTED URBAN AREAS OF PUNE CITY.”

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ABSTRACT

Lactation failure, driven by socio-economic pressures, workplace demands, and inadequate support, impacts maternal and child health. Limited public health resources and cultural norms further hinder breastfeeding success. **Aim of the study:** This study aims to understand the factors contributing to lactation failure among mothers in selected urban areas of Pune using mixed-method research. It seeks to identify challenges and recommend interventions to improve breastfeeding support. **Methodology:** This mixed-method study focused on lactating mothers in Pune experiencing breastfeeding difficulties. Using non-probability purposive sampling, structured questionnaires were employed to assess prevalence, demographic factors, and related breastfeeding challenges. **Result:** The study highlights that lactation failure primarily affects young mothers aged 21-30, with varied educational backgrounds, most being homemakers. The majority had one child, and normal deliveries were more common, though a significant number underwent caesarean sections. Breastfeeding challenges typically emerged within 13 months, influenced by factors such as feeding techniques, ineffective latching, maternal discomfort, breast engorgement, and inadequate dietary support. Additionally, maternal anxiety, stress, and lack of antenatal education contributed to breastfeeding difficulties, emphasizing the need for enhanced lactation support and interventions. **Conclusion:** The study concluded that workplace interventions, prenatal education, emotional support, and lactation guidance are essential to improving breastfeeding success. It emphasized the need for high-quality research and structured policies to address maternal, neonatal, and psychological challenges in lactation.

Key words: (Mixed method, understanding, lactation failure, lactating mothers, urban areas.)

INTRODUCTION

Breastfeeding is ideal method for providing them nutrients, offering numerous benefits to both the mother and child. It helps to reduce infant illness and death by providing essential nutrients, antibodies, and protection against infections. The World Health Organization and UNICEF advocate for exclusive breastfeeding during the first six months of life, followed by continued breastfeeding with complementary feeding for up to two years or further. However, many mothers face challenges in initiating and maintaining breastfeeding, resulting in lactation failure. This issue is particularly concerning in many areas, where socio-economic pressures and lifestyle changes often

hinder breastfeeding practice.

The several factors contribute to lactation failure, including socio-economic pressures, workplace demands, insufficient lactation support, and cultural norms that may not prioritize breastfeeding, these challenges are compounded by limited public health resources and lack of community support systems. This study seeks to bridge this gap by examining the prevalence and causes of lactation failure among mothers in selected urban areas, offering critical insights for targeted policy and program interventions.

NEED FOR THE STUDY

Lactation failure remains a significant challenge for many mothers, particularly in urban areas, where socioeconomic, cultural, and lifestyle factors can negatively impact breastfeeding practices. In Pune, urbanization has led to changes in family structures, work environments, and maternal stress levels, exacerbating these issues. Despite the recognized benefits of breastfeeding, there is insufficient understanding of the barriers contributing to lactation failure in this population. This study aims to address this gap by exploring the factors influencing lactation failure and identifying strategies for targeted interventions.

While there is considerable research on breastfeeding barriers and lactation challenges globally, there is limited data specific to urban areas in India, particularly Pune city. The socio-economic, cultural, and environmental factors unique to this population remain underexplored, leaving a gap in understanding the determinants of lactation failure and the effectiveness of existing interventions.

Key influencing factors include maternal knowledge, family support, and delivery type, while early hospital recommendations for top feeding contribute to mixed feeding practices. Despite global guidelines favoring exclusive breastfeeding, hospital practices often discourage mothers from continuing it. The findings highlight the importance of antenatal counseling, breastfeeding education, and supportive hospital policies to improve breastfeeding rates and infant nutrition.

AIM OF THE STUDY

This study aims to understand the factors contributing to lactation failure among mothers in selected urban areas of Pune using mixed-method research. It seeks to identify challenges and recommend interventions to improve breastfeeding support.

MATERIAL AND METHODS

This mixed-method study investigated breastfeeding difficulties among lactating mothers in Pune, aiming to identify key factors contributing to lactation failure. A non-probability purposive sampling technique was employed to select participants, ensuring representation of mothers facing challenges in breastfeeding. Structured questionnaires were used to gather quantitative data, assessing prevalence, demographic characteristics, and specific breastfeeding-related concerns. The study explored maternal stress, feeding techniques, neonatal factors, and socio-cultural influences affecting lactation. Findings provided insights into common issues such as ineffective latching, inadequate support systems, and workplace constraints. By analyzing these factors, the research aims to propose targeted interventions to improve breastfeeding success rates among urban mothers.

RESULT

Demographic data of lactating Mothers

Table 1. Demographic data of lactating Mothers

n=30.

Sr. No	Variables	Frequency	Percentage	Frequency	Percentage
1	Age				
A	18-20 years	15	50%	00	00.00%
B	21-30 years	10	33.33%	12	100%
C	31-40 years	05	16.66%	00	00.00%
D	Above 40 years	00	00.00%	00	00.00%
	Total	30	100%	12	100%
2	Educational Qualification				
A	No Formal education	0	00.00%	00	00.00%
B	Primary Education	8	26.66%	01	08.33%
C	Higher Secondary Education	9	30%	03	25.00%
D	Graduate	5	16.66%	04	33.33%
E	Any other field	8	26.66%	04	33.33%
	Total	30	100%	12	100%
3	Employment Status				
A	Employed full time	10	33.33%	04	33.33%
B	Employed part time	05	16.6%	00	00.00%
C	Homemaker	15	50%	08	66.66%
	Total	30	100%	12	100%
4	Number of Children				
A	1	15	50%	10	83.33%
B	2	12	40%	02	16.66%
C	3	03	10%	00	00.00%
D	4 and more than 4	00	00%	00	00.00%
	Total	30	100%	12	100%
5	Type of Delivery				
A	Normal Vaginal Delivery	18	60%	07	58.33%
B	Caesarean section	12	40%	05	41.66%

C	Instrumental delivery	00	00%	00	00.00%
	Total	30	100%	12	100%
6	How long have you been breastfeeding your child?				
A	Less than 1 month	0	00.00%	00	00.00%
B	1-3 months	18	60%	06	50.00%
C	4-6 months	10	33.33%	06	50.00%
D	More than 6 months	02	6.66%	00	00.00%
	Total	30	100%	12	100%

Table 1 is interpreting the demographic profile of the lactating mothers (n=30) revealed that half of the participants were between 18–20 years of age, one-third were in the 21–30 years group, and a smaller proportion (16.66%) were between 31–40 years, with none above 40 years. All participants had some level of education, most commonly higher secondary (30%) and primary education (26.66%), with an equal share (26.66%) in other fields and 16.66% being graduates. Employment status showed that homemakers constituted half of the sample, while 33.33% were employed full time and 16.6% part time. With respect to parity, half of the mothers had one child, 40% had two, and only 10% had three, with none reporting four or more children. Normal vaginal delivery was more frequent (60%) than caesarean section (40%), while instrumental deliveries were absent. Breastfeeding duration was concentrated in the 1–3 month (60%) and 4–6 month (33.33%) categories, with very few extending beyond six months (6.66%).

Among the subgroup experiencing lactation failure (n=12), all were concentrated in the 21–30 year age group, highlighting this as a particularly vulnerable period for breastfeeding difficulties. Education did not appear to offer a protective effect, as cases were spread across higher secondary (25%), graduate (33.33%), and other fields (33.33%), with even primary education represented (8.33%). Homemakers were more commonly affected (66.66%) compared to their overall proportion, while full-time employees accounted for 33.33% and no cases were reported among part-time workers. A striking finding was that the majority of affected mothers were primiparous (83.33%), with only 16.66% having two children and none with three or more, suggesting first-time motherhood as a strong risk factor. The type of delivery showed no major difference between groups, with both normal vaginal delivery (58.33%) and caesarean section (41.66%) represented. Importantly, all lactation failures occurred within the first six months postpartum, equally divided between 1–3 months and 4–6 months, underscoring the early postpartum period as the most critical window for intervention. This analysis suggests that younger primiparous mothers, particularly homemakers in the 21–30 year age group, are more susceptible to breastfeeding difficulties. The clustering of cases within the first six months points to the need for intensive lactation support immediately after

delivery, with emphasis on early follow-up, skill-based education, and counseling tailored for first-time mothers.

Findings of thematic analysis

Table 2: Demographic data of lactation failure

SN. NO	VARIABLE	FREQUENCY	PERCENTAGE
1	Age		
A	18-20 years	00	00.00%
B	21-30 years	12	100%
C	31-40 years	00	00.00%
D	Above 40 years	00	00.00%
	Total	12	100%
2	Educational qualification		
A	No formal education	00	00.00%
B	Primary education	01	08.33%
C	Higher secondary education	03	25.00%
D	Graduate	04	33.33%
E	Any other field	04	33.33%
	Total	12	100%
3	Employment status		
A	Employed full time	04	33.33%
B	Employed part time	00	00.00%
C	homemaker	08	66.66%
	Total	12	100%
4	Number of children		
A	1	10	83.33%
B	2	02	16.66%
C	3	00	00.00%
D	4 and more than 4	00	00.00%
	Total	12	100%
5	Type of delivery		
A	Normal vaginal delivery	07	58.33%
B	caesarean delivery	05	41.66%
C	Instrumental delivery	00	00.00%
	Total	12	100%
6	How long have you been breastfeeding your child?		
A	Less than 1 months	00	00.00%
B	1-3 months	06	50.00%
C	4-6 months	06	50.00%
D	More than 6 months	00	00.00%
	Total	12	100%

Table 2 describing the thematic analysis of lactation failure among mothers reveals several key challenges affecting breastfeeding success:

1. **Improper Holding & Latching** – Many mothers struggled with correctly positioning their babies, leading to inefficient feeding. Pain from C-sections further complicated proper latching and holding.
2. **Premature Birth Challenges**– Mothers of premature infants faced additional difficulties due to weak sucking reflexes and medical interventions like phototherapy, impacting breastfeeding initiation.
3. **Breast Engorgement & Nipple Issues** – Heaviness, improper nipple growth, soreness, and cracked or inverted nipples resulted in discomfort and reduced breastfeeding frequency.
4. **Improper Breastfeeding Techniques & Lack of Awareness** – Many mothers lacked proper guidance on positioning and feeding, leading to ineffective milk transfer.
5. **Insufficient Milk Production** – Worries about low or inconsistent milk supply led mothers to seek various interventions, including Ayurvedic remedies, food supplements, and tonics.
6. **Uncertainty About Feeding Duration** – Lack of awareness regarding appropriate breastfeeding duration resulted in inconsistent feeding schedules.
7. **Dietary & Supplementary Support** – Mothers incorporated Shatavari, protein powder, and fortified food to enhance milk production, influenced by cultural and nutritional beliefs.
8. **Antenatal Education & Support** – Participation in ANC classes and Garbha Sanskar sessions improved maternal confidence and preparedness for breastfeeding.
9. **Maternal Anxiety & Stress** – Psychological distress, concerns over milk sufficiency, and infant feeding patterns negatively affected lactation, highlighting the importance of emotional support.
10. **Adjustments in Feeding Schedules** – Fluctuating milk supply forced mothers to modify feeding routines, impacting breastfeeding consistency.

These findings emphasize the need for enhanced lactation education, antenatal training, dietary guidance, emotional support, and structured healthcare interventions to improve breastfeeding outcomes for mothers and infants.

On the basis of theme factors identified leading to lactation failure are challenges in feeding technique, ineffective latching, maturity of the baby, maternal related to discomfort, breast engorgement pain, improper breastfeeding, dietary and supplementary support, antenatal education and awareness maternal anxiety and stress change in feeding duration.

DISCUSSION

The study can be discussed with Priyanka Mittal et al Breastfeeding: Etiological Factors in Lactation Failure. The study "Breastfeeding: Etiological Factors in Lactation Failure", examines various causes contributing to lactation failure among mothers and emphasizes the importance of breastfeeding for infant health and development. It highlights that successful breastfeeding requires a combination of maternal effort, societal support, and healthcare guidance. The research adopts a prospective observational approach, gathering

data from lactating mothers through structured questionnaires and interviews to identify challenges such as maternal stress, improper latching, workplace constraints, and socio-cultural influences. The findings reveal that many mothers experience breastfeeding difficulties due to factors like breast engorgement, nipple pain, and insufficient milk production, while prenatal education and healthcare interventions play a crucial role in improving breastfeeding outcomes. The study concludes that breastfeeding success is not solely dependent on maternal ability but requires collective support from families, communities, and workplaces. It emphasizes the need for comprehensive prenatal education, structured healthcare policies, and workplace support systems to enhance breastfeeding rates and reduce lactation failure, ultimately benefiting maternal and child health.

The present study “**A Mixed-Method Study to Understand Lactation Failure Among Lactating Mothers in Selected Urban Areas of Pune City**” investigates the prevalence and contributing factors of lactation failure in urban settings. Using a combination of **quantitative surveys and qualitative interviews**, the research examines maternal challenges, breastfeeding techniques, socio-economic influences, and healthcare support. Findings highlight key barriers such as **improper latching, maternal stress, workplace constraints, inadequate lactation education, and insufficient milk production**. Additionally, **premature births, breast engorgement, and dietary gaps** were identified as contributing factors. The study emphasizes the **need for enhanced prenatal education, healthcare interventions, and workplace policies** to support breastfeeding mothers, aiming to improve lactation success and infant health outcomes.

CONCLUSION

The findings emphasize that successful breastfeeding requires maternal awareness, healthcare support, societal interventions, and workplace accommodations. Major contributors to lactation failure include improper latching, maternal stress, lack of antenatal education, workplace demands, and inadequate milk production. Addressing these barriers is essential for improving breastfeeding outcomes among urban mothers.

- Breastfeeding difficulties are prevalent due to improper holding and latching, leading to feeding inefficiency.
- Premature births pose additional challenges, often requiring medical intervention for successful breastfeeding.
- Breast engorgement, nipple pain, and anatomical issues like inverted or cracked nipples contribute to lactation failure.
- Lack of breastfeeding education results in incorrect feeding techniques, affecting milk transfer.
- Maternal anxiety, stress, and socio-economic constraints significantly impact breastfeeding duration and success.
- Dietary interventions and supplements play a role in supporting lactation, but alone they are not sufficient.
- Workplace challenges and insufficient maternity leave hinder breastfeeding continuity for working mothers.

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