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A Primi Mother's Unseen Battle: Navigating Breastfeeding Pain

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ABSTRACT

Background: Breastfeeding, while universally recognised as the optimal source of infant nutrition, can present significant challenges for new mothers, particularly primiparous mothers. Among the challenges, the most frequent and distressing is breastfeeding pain. If unaddressed, it can become a decisive factor for premature cessation of exclusive breastfeeding, with lasting implications for both mother and child. **Objective:** To determine the prevalence, characteristics, and associated factors of breastfeeding-related pain among primiparous mothers. **Methods:** A cross sectional study was carried out among 110 primiparous mothers in the maternity hospital, Coimbatore. The participants were chosen through simple random sampling and data collection was undertaken using a structured questionnaire and numeric visual analogue scale. To examine the associations, descriptive statistics was applied, followed by Pearson's chi square test with Cramer's V with statistical significance set at $p<0.05$. **Results:** Significant associations were found between breastfeeding pain and high breastfeeding frequency of 8 or more times per day (χ^2 =65.3, V=0.545, $p<0.001$), cradle position (χ^2=23.437, V=0.768, $p<0.04$), interference with daily activities (χ^2=26.731, V=0.679, $p<0.03$), musculoskeletal pain (χ^2=43.152, V=0.626, $p<0.005$), nipple pain (χ^2 =42.376, V=0.632, $p<0.01$).Severe pain was localized to the lumbar region and nipple. Pain reduction was reported with positional changes, notably side lying and football hold (χ^2=34.493, V=0.638, $p<0.001$). Common relief strategies used by the mothers were back massage (24.5%), rest (20.9%), lying down (16.4%), nipple cream (17.3%), warm compress (10.9%), medications (6.4%) and physiotherapy (3.6%). **Conclusion:** One of the multifaceted challenges is breastfeeding pain among primiparous mothers, strongly linked to feeding frequency, positioning, and musculoskeletal discomfort. Early ergonomic guidance, positional adjustments, and timely professional support are essential to improve maternal comfort and sustain breastfeeding.

Keywords: Primiparous mothers, exclusive breastfeeding, pain

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Introduction

Breastfeeding is widely promoted as the natural and best way to nourish newborns, providing vital nutrients and fostering a unique bond between mother and child. The pain of breastfeeding extends far beyond the breast. With every feed, a mother must crane her neck to maintain eye contact, straining muscles to ensure her baby is latched and sucking well. This repeated posture burden weighs heavily on new mothers, eroding their confidence and endurance, painful breastfeeding experiences are not just a physical struggle, they can lead to emotional distress, contributing to postpartum depression and feelings of guilt and inadequacy. Breastfeeding pain is a significant contributing factor to shorten the lactation duration, which can affect the mother-infant dyadic relationship negatively[1]. The World Health Organization advises only breast milk for the first six months; however, in practice many mothers discontinue or avoid breastfeeding often due to pain and discomfort associated with it[2].

Approximately 44% of Primipara mothers report experiencing musculoskeletal pain. The pain often goes unaddressed because it is not as immediately apparent as breast-related pain, but it can be debilitating for many mothers.[3,4] It results from the physical demands of holding the baby in various positions for prolonged periods and the lack of proper ergonomic support. Many new mothers struggle with poor posture, especially if they are not taught the right techniques for breastfeeding or do not have the right support equipment (such as pillow or supportive chairs). Breast-related pain is the more immediate and intense forms of discomfort mothers typically associate with breastfeeding. It includes nipple pain, engorgement, cracked nipples, and conditions like mastitis.[5,6,7]

For novice mothers, it can even trigger or worsen postpartum depression (PPD). Studies have shown a strong link between breastfeeding pain and health challenges.[7]

The physical and emotional pain associated with breastfeeding has a direct impact on the duration of breastfeeding. In many cases, primipara mothers experience significant pain and discomfort during the early weeks, which leads them to switch to formula feeding or stop breastfeeding altogether. Mothers who are discharged from the hospital without adequate breastfeeding technique are at a substantially higher risk of encountering difficulties, which often contribute to early cessation of breastfeeding[1,2,3].

Therefore, this study aimed to determine the prevalence of pain during breastfeeding among primipara mothers.

Materials and Methods

This cross-sectional descriptive survey included primipara mothers currently breastfeeding their babies during the first six months postpartum in the age group of 20-40 years. Primi mothers with known orthopaedic conditions that involved neck, spine, and extremity pain were excluded. The estimation of sample size was based on the reported prevalence of exclusive breastfeeding (EBF) as per Tamil Nadu NFHS 5, which was taken as 55.1%. Taking this prevalence of EBF with the permissible level of error as 10% and 95% confidence level, thus, the minimum required sample size was estimated to be approximately 105. To account for possible non-response or incomplete data, the final sample size was rounded up to 110.

Data was obtained at a private hospital in Coimbatore; informed consent was obtained from all the participants. Each primiparam other underwent a 15 minutes interview session using a structured pain assessment questionnaire (consisting of Part A, B, C, D) Part A of the questionnaire captured demographic variables such as age, education, mode of delivery, and employment status, Part B focused on breastfeeding position and feeding pattern, breast and nipple pain, Part C sought information on Musculoskeletal pain. The severity of pain was assessed using the Numeric Visual Analogue Scale (VAS) score. Part D explored the impact of pain on daily activities and methods used for pain relief. The Ethical clearance was obtained by the authorities with the number IHEC/AUW/ IHEC/ WS/23-24/XPD-01.

Descriptive analysis was used to summarize the frequency and percentage. Pearson’s chi square test with Cramer’s V was applied to determine the significant association between breastfeeding pain and primipara mothers with the level of statistical significant set at $p<0.05$.

Results

Table-1 shows demographic variables of the primiparous mothers 48 (43.63%) out of 110 primiparous mothers were in the age group of 20-25 years old, 57 (51.81%) belonged to the age group of 26-30 years old, 4 (3.63) mothers were in the age group of 30-35 years and one mother was elderly primipara with 36 years. Notable 75 (68.18%) of the mothers had normal vaginal delivery and 35 (31.81%) underwent Caesarean section. Education level was skewed towards higher studies with 5 (5.54%) studied high school, 2 (1.81%) completed diploma, a significant 75 (68.18%) held undergraduate studies, 28 (25.45%) were postgraduates. Most of the primiparous mothers were homemakers 88 (80%) 3 (2.63%) engaged in part time work, 16 (14.54%) of the mothers were working full time and 3 (2.72%) were working from home.

Majority of the mothers 67 (60.90%) were breastfeeding 8 or more times, 41 (37.27%) of the mothers were breastfeeding 4-6 times, while 2 (1.81%) were breast-feeding only 1-3 times (Table-1).

Table-2 explored various aspects of breastfeeding pain in 110 primipara mothers. Significant association was found using chi square test and Cramer's V was measured to assess the magnitude of the relationship. The results showed statistically significant ($p \leq 0.05$), which shows breastfeeding pain is a complex issue not just a temporary or minor discomfort. The significant finding has a strong link between the number of times the primi mother feeds (8 or more times) with the pain they reported ($\chi^2 = 65.3$; $p<0.01$; $V=0.545$) where as there was no association with feeding less than 6 times a day.

Table-1: Demographic variables (N=110)

Variables		No.	%
Age	20-25	48	43.63
	26-30	57	51.81
	31- 35	4	3.63
	36 & above	1	0.90
Mode of delivery	Vaginal delivery	75	68.18
	Caesarean section	35	31.81
Education	High school	5	4.54
	Diploma	2	1.81
	Under graduate	75	68.18
	Post graduate	28	25.45
Occupation	Home maker	88	80.0
	Part time work	3	2.72
	Full time work	16	16.54
	Work from home	3	2.72
Frequency of breastfeed per day	8 or more times	67	60.90
	4-6 times	41	37.27
	1-3 times	2	1.81

The cradle breastfeeding position and maternal reported pain ($\chi^2 = 23.437, V=0.768$, $p<0.04$) showed a strong association and highest Cramer score of 0.768 which underscores an immediate attention to this traditional breastfeeding position's if the ergonomics in this position if not followed properly may cause suboptimal latch leading to insufficient milk ejection and nipple trauma. Statistically significant association was established between Interference of pain with daily activities and its impact on mother's ability to breastfeed comfortably ($\chi^2=26.731, V=0.679$, $p<0.03$), this reinforces the pervasive nature of discomfort emphasizing that pain experienced during breastfeeding can adversely affect a mother's overall quality of life, daily activities and can potentially lead to increased stress. Neck pain, Back pain and shoulder pain ($\chi^2 = 43.152$, $V= 0.626$, $p<0.05, 0.01$) and nipple pain ($\chi^2 = 42.376$, $V=0.632$, $p<0.01$) indicate a strong precursor for discontinuation of breastfeeding, which calls for an urgent clinical audit and intervention.

Table-2: Association of pain score with various parameters

Variables	¡2	Df	Cramer v	P value
Breastfeeding frequency and pain association (8 or more times)	65.300	26	0.545	0.01
Pain associated with cradle position	23.437	15	0.768	0.04
Interference of pain with daily activities	26.731	10	0.679	0.03
Breastfeeding and neck, back, and shoulder pain	43.152	30	0.626	0.05
Breastfeeding and nipple pain	42.376	30	0.632	0.01
Positional changes for pain relief	34.493	15	0.638	0.00
Seeking professional help for pain relief	43.480	10	0.526	0.01
Pain relief methods utilized	35.914	26	0.404	0.04
Effectiveness of pain relief (very effective)	53.676	39	0.403	0.05

Primi mothers reported a reduction of pain with the change of position to side-lying ($\chi^2=34.493$, $V=0.638$, $p<0.00$) with a mild to moderate strong association, with mothers reporting VAS pain score from 8 to 2 with change of position to side lying and football hold. Strong association ($\chi^2=43.480$, $V=0.526$, $p<0.01$) between primipara mothers seeking professional help (doctors and nurses) shows the need for the expert intervention which validates the crucial role in minimizing the pain which helps in smooth conduction of breastfeeding journey.

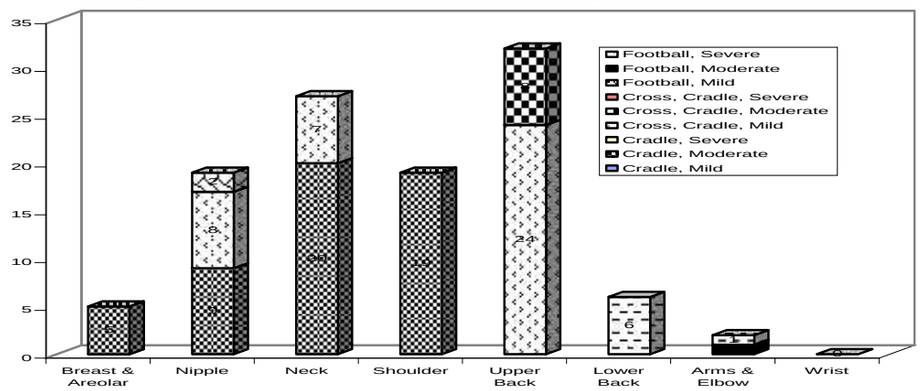
Pain relief methods utilized (χ^2=35.914, V=0.404, p<0.04) and their effectiveness (χ^2=53.676, V=0.403, p<0.05) determines that the primipara mothers are engaging themselves in attempting to overcome the hurdles and to manage their pain in achieving effective pain relief and which correlates in successful breastfeeding journey (Table-2).

Figure-1 illustrates the distribution of pain intensity experienced by mothers across various anatomical sites, assessed using the visual numeric analogue pain scale, the scale categorizes pain level as 0=no pain, 1-3= mild pain, 4-7 = moderate pain, 8-10 = severe pain. In the cradle position, a substantial number of mothers reported pain across multiple anatomical site. Notably, 24 mothers (21.8%) experienced severe upper back pain, while 9 mothers (8.2%) reported severe nipple pain. Moderate pain in the breast and areolar region was reported by 5 mothers (4.5%) and 20 mothers (18.2%) reported moderate pain in the neck region. Additionally 19 mothers (17.3%) experienced pain in the shoulder, 6 mothers (5.5%) reported moderate lower back pain, and 1 mother (0.9%) described mild pain in the arm and elbow.

Among those mothers utilizing cross cradle position 8 mothers (7.3%) reported moderate pain localized to nipple, 7 (6.4%) mothers experienced moderate neck pain and 8 mothers (7.3%) reported moderate upper back discomfort.

Mothers who adopted foot ball hold position 2 mothers (1.8%) reported moderate pain in the nipple and 1(0.9%) mother reported moderate pain in the arm and elbow.

Figure -1: Pain Location vs. Position and Severity (with number of cases)



Pain Location

VAS Pain Scale: 0 = No Pain; 1-3 = Mild Pain; 4-7 = Moderate Pain; 8-10 = Severe Pain

Figure-2: Paid relief used by Primiparous mothers

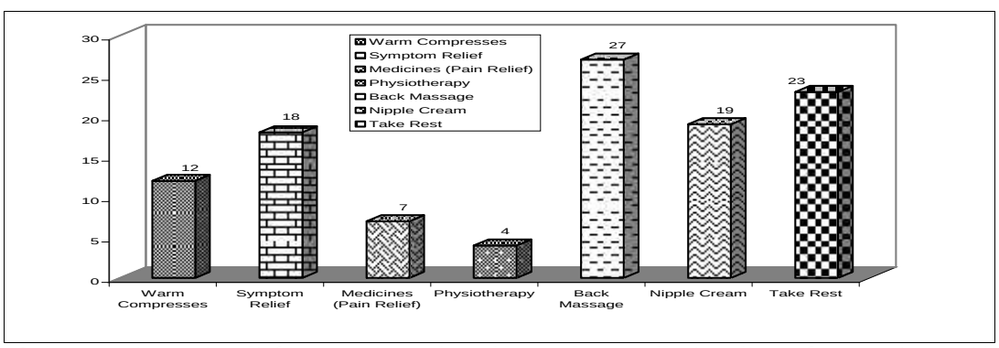


Figure-2 shows various pain relief interventions adopted by mothers to alleviate discomfort associated with breastfeeding. A variety of non pharmacological and pharmacological strategies were employed, reflecting individual preferences and the multi-dimensional nature of pain management. Specifically, 12 mothers (10.9%) utilized warm compress, 18 mothers (16.4%) reported symptom relief by choosing lying down position.

Pharmacological measures were adopted by 7 mothers (6.4%), who used prescribed medications for pain relief, 4 mothers (3.6%) received physiotherapy interventions to reduce pain, a significant number of 27 mothers (24.5%) reported benefiting from back massage, nipple cream application was used by 19 mothers (17.3%) to soothe nipple soreness due to improper latch and further more 23 mothers (20.9%) identified rest as a critical component in their pain management approach emphasizing the importance of physical recovery (Figure-2).

Discussion

The prevalence of pain was seen highest among the primiparous mothers who breastfed for a longer duration (8 or more times) with the pain they reported (χ^2 = 65.3, p<0.01, V=0.545), The repetitive cradle position which causes frequent eye contact and flexing of neck to check the baby causes pain in the primiparous mothers who have yet to master the cradle position as the study has a significant association with the cradle position and pain (χ^2 =23.437,V=0.768, p<0.04) shows that the mothers need education on proper ergonomic knowledge which aligns with study conducted in a hospital at central India among 265 mothers found that 42.3% of the mothers had inadequate feeding position[9]. A cross-sectional survey in Nigeria found that 94% of the 310 mothers adopted cradle position for breastfeeding and fed their infants ten or more times per day[10].

Findings from the study indicate there is a notable association of duration of breastfeeding and musculoskeletal pain in neck, shoulder and back (χ^2 =43.152, V=0.626, p< 0.05, 0.01), which analogous with a study carried out in Riyadh, Saudi Arabia, with 336 mothers with 93.7% of mothers reported musculoskeletal pain[3].A notable proportion of the participants in our study showed that there was a strong association between nipple and pain (χ^2 =42.376, V=0.632, p<0.01), often linked with poor positioning a common contributing factor, leading to suboptimal breastfeeding which is supported by research carried out among 1084 women in United Kingdom, out of which 76% women reported to have nipple pain which led to 19% of the women to stop breastfeeding[11], a survey conducted in Melbourne with 340 primiparous women revealed that 79% of the mothers experienced nipple pain and 58% had nipple damage owing to suboptimal breastfeeding[12]. A study exploring women's perception of pain while breastfeeding while searching online forums in UK and USA using 123 online posts and 193 replies collected between 2012 and 2018 indicated that the pain was a significant factor contributing to the cessation of breastfeeding and identified the need for appropriate education that sets realistic expectations about breastfeeding[13]. A prospective study conducted in India revealed that 198 mothers complain of pain during breastfeeding and 15 mothers had sore nipple out of 300 lactating women[14], an experimental study involving 60 postnatal mothers demonstrated that educating mothers on proper breastfeeding techniques was effective, resulting in 20.6% reduction in nipple soreness among the experimental group as compared to only 4.6% in the control group[15].

In our study regarding the intensity of pain, a Numeric visual analog pain score was used to assess the pain, and the highest recorded pain was in the upper back and nipple in the cradle position seen in majority of the mothers in the study moderate to mild pain was seen in cross cradle and foot ball hold position a similar systematic review study was conducted and around 25 studies were selected by using Numeric rating scale and visual analogue scale for measuring pain during breastfeeding and women complained of pain and one of the main reason for premature cessation of breastfeeding[16]. A longitudinal study was conducted within a clinical trail of 102 Brazilian primiparous women for Nipple pain using visual analogue scale which revealed most of the participants had moderate to severe pain[17].An online survey involving 535 mothers evaluated for breastfeeding challenges with their association with maternal wellbeing showed that breastfeeding pain was the most commonly reported difficulty[18].

Conclusion

Breastfeeding, though widely established as a cornerstone of maternal and child health, is often accompanied by physical discomfort and pain, particularly during the initial postpartum period. This pain can pose a substantial barrier to continued breastfeeding and negatively impact a mother's physical and emotional well-being. The present study highlights that pain during breastfeeding is not only a physiological experience but also a multidimensional challenge influenced by knowledge, support systems, mental health, and societal expectations. A central finding of this research is the pivotal role of education and skilled support in preventing and managing breastfeeding pain: Proper latching and positioning are foundational to a pain-free breastfeeding experience. In addition to clinical instruction, environmental and ergonomic considerations are essential. Simple

interventions such as providing supportive pillows, adjustable chairs, and private, comfortable breastfeeding spaces can significantly reduce musculoskeletal strain. These measures can ease the physical burden on mothers, especially during prolonged breastfeeding sessions, and should be made readily available in both healthcare settings and home environments. Addressing pain during breastfeeding requires a holistic, multi-layered approach that combines clinical expertise, ergonomic support, psychological care, and cultural sensitivity. When mothers are equipped with the right knowledge, tools, and emotional support, they are more likely to overcome initial challenges and sustain breastfeeding, thereby reaping its long-term health benefits. Future policies and practices should prioritize a comprehensive support framework to ensure that pain does not remain a silent barrier in the breastfeeding journey.

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