

BRIDGING THE GAP WITH EDUCATIONAL SUPPORT TO IMPROVE BREASTFEEDING OUTCOMES FOR PRIMIGRAVIDA POST-CESAREAN WOMEN

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Abstract

Breastfeeding is essential for maternal and infant health, yet primigravida mothers recovering from cesarean sections often face challenges initiating and sustaining it. This quasi-experimental study evaluates the impact of an educational intervention on breastfeeding knowledge, attitudes, and practices (KAP) among post-cesarean primigravida women at a tertiary care hospital in Lahore, Pakistan. Using purposive sampling, 80 participants were recruited while 75 completing the study. The intervention included targeted educational sessions, printed materials, and discussions led by healthcare professionals. Pre- and post-intervention assessments conducted using structured questionnaires and followed up over six months, revealed significant improvements. Breastfeeding knowledge increased from 20% to 82.7%, positive attitudes rose from 13.3% to 80%, and breastfeeding practices, including early initiation and exclusive breastfeeding for six months, improved from 33.3% to 80%. Statistical analysis using paired t-tests and chi-square tests confirmed these improvements as statistically significant ($p < 0.05$). The findings highlight the effectiveness of structured breastfeeding education in enhancing knowledge, fostering positive attitudes, and improving breastfeeding practices among post-cesarean mothers a group traditionally facing lower breastfeeding success rates. This study underscores the need to integrate breastfeeding education into postpartum care to support mothers in overcoming post-surgical barriers. Future research should explore long-term adherence and the role of continuous support mechanisms in sustaining these positive outcomes.

INTRODUCTION

Breastfeeding is widely recognized as the optimal method of providing nutrition to newborns, offering

a range of health benefits for both the infant and the mother. However, breastfeeding initiation and

continuation can be particularly challenging for primigravida women who have undergone a cesarean section. While the importance of breastfeeding is well-documented, the physical and psychological challenges post-cesarean section poses significant barriers, potentially leading to lower rates of breastfeeding initiation and continuation (Renuka et al., 2020).

According to recent studies, 80% of the children do not benefit from exclusive breastfeeding in developing countries. Despite considerable evidence of poor breastfeeding habits, particularly in developing countries, only around 25% of African babies were exclusively breastfed. Furthermore, 6% of children born in developing nations were never breastfed. Around 22 million infants were exclusively breastfed, while more than 34 million were not from the 56 million infants born globally (Jama et al., 2020).

Renuka et al. (2020) elaborated that breastfeeding is both a natural process and a skill that needs to be learned. Sadly, many mothers and their newborns do not receive the necessary support to start breastfeeding within the first hour after birth, nor do they receive adequate guidance to practice exclusive breastfeeding during the first six months. These clients often experience prenatal or postnatal emotional health conditions, such as anxiety and depression, which can be exacerbated by the stress of hospitalization in a high-intensity environment (Hussain et al., 2024). However, with accurate information, skilled practical assistance, and strong support from their families, communities, and the healthcare system, all mothers can successfully and appropriately breastfeed. The practical advice is crucial so that it can build a mother's confidence, enhance her breastfeeding technique, and help prevent or resolve common breastfeeding challenges, such as sore nipples and mastitis, which often result from incorrect breastfeeding methods (Safayi et al., 2021).

Liu et al. (2024) elaborated the challenges in breast feeding like a mother's lack of confidence in her ability to breastfeed, difficulties with the baby's latch or suckling, breast engorgement or soreness, perceived low milk supply, and insufficient personalized counseling during pregnancy and the

early postnatal period can lead to lower breastfeeding rates. Many of these issues can be addressed if women receive proper education about breastfeeding techniques during pregnancy. Therefore, this study aims to explore the impact of educating pregnant women about breastfeeding practices during the antenatal period.

Given the existing gaps in the literature, this research is essential to understand the potential impact of tailored education programs on breastfeeding among post-cesarean section primigravida women. By addressing the specific challenges faced by this group, the study aims to provide valuable insights that could inform clinical practices and enhance support systems for new mothers. The quasi-experimental design of this study has allowed for a rigorous evaluation of the effectiveness of education programs, potentially offering a practical solution to improve breastfeeding rates and maternal health outcomes in this vulnerable population.

Problem Statement

Breastfeeding is widely recognized for its significant health benefits for both mothers and infants. Despite this, global breastfeeding rates remain suboptimal, particularly among primigravida women who have undergone cesarean sections. Research indicates that these women often face additional challenges in initiating and maintaining breastfeeding, such as delayed lactation, difficulty with infant latch, and physical discomfort post-surgery. Worldwide, it is estimated that only **44%** of infants are exclusively breastfed for the first six months, with rates significantly lower among cesarean section mothers, where exclusive breastfeeding rates can drop to as low as **20-30%** in some regions. However, it is anticipated that it will increase up to 50% by year 2025 (Jama et al., 2020).

Only 39% of newborns worldwide receive breast milk within the very first hour soon after birth, while only 37% of infants are entirely breastfed, although the World Health Organization's (WHO) vigorous encouragement for exclusive breastfeeding (EBF) and its renowned benefits. Only 20% of mothers in Sub-Saharan Africa confirmed they exclusively breastfeed their youngest child. About 41% of African mothers exclusively breastfeed, whereas in

Asia, 44% and in Latin America, 30% respectively. These challenges are compounded by a lack of targeted breastfeeding education and support, leading to increased reliance on formula feeding, which further diminishes breastfeeding rates. In the specific context of primigravida women who have undergone cesarean sections, the problem is even more pronounced. Without adequate education and support during the antenatal and postnatal periods, many of these women struggle to initiate and sustain breastfeeding, thereby missing out on its critical benefits. Addressing this gap through effective education programs is crucial to improving breastfeeding outcomes in this vulnerable group.

Significance of the Study

This study is of vital importance for the way it tackles the challenges that primigravida women, particularly those who have undergone cesarean sections may face in establishing and maintaining breastfeeding. Regardless of the mode of birth, it is critical to ensure that all mothers have the knowledge, confidence, and support they need to successfully breastfeed. These advantages are well-documented, and include increased immunity, better nutritional results, and greater mother-child bonds. This study aims to identify effective approaches that may be used in prenatal and postnatal care settings to improve breastfeeding outcomes for this vulnerable population by investigating the influence of education programs on breastfeeding practices.

The findings of this study may also be very useful in furthering the debate regarding mother and child health in general, particularly in countries where cesarean procedures are becoming increasingly prevalent. It is more important than ever to understand how to help primigravida women overcome the challenges of breastfeeding, as the frequency of cesarean deliveries globally rises. The study's findings may have an influence on healthcare practices and policy, driving the development of specific educational efforts that address the unique needs of women who have undergone cesarean sections. In the end, this research may increase breastfeeding rates and improve the quality of care provided to new mothers. Ultimately help both

mothers' and their newborns' overall health and well-being.

Research Hypotheses

Null Hypothesis (H_0): There is no significant difference in the knowledge and attitude of primigravida women regarding their visit to prenatal clinics before and after receiving targeted education programs.

Alternative Hypothesis (H_1): There is a significant difference in the knowledge and attitude of primigravida women regarding their visit to prenatal clinics before and after receiving targeted education programs.

Null Hypothesis (H_0): Education programs have no significant effect on the breastfeeding practices of primigravida women who have undergone cesarean sections.

Alternative Hypothesis (H_1): Education programs have a significant effect on the breastfeeding practices of primigravida women who have undergone cesarean sections.

Study Objective

1. To assess the knowledge and attitude of women in primigravida regarding their visit to prenatal clinics.
2. To evaluate the effects of education programs on breastfeeding among primigravida of post-cesarean section women.

Methodology

Study design

This study utilized a quasi-experimental study design.

Study Setting

The research was conducted within the Inpatient Department of Obstetrics and Gynecology of a tertiary care hospital located in Lahore, Pakistan. This setting was chosen to ensure the inclusivity and applicability of the research outcomes across diverse patient demographics.

Study Duration

The study has been completed in six months.

Sample Size

An estimated sample size of 80 females has been recruited through purposive sampling. The sample size has been determined based on a power analysis and previous literature to detect meaningful differences in the outcomes post-intervention with statistical significance.

Sample Size Calculation Formula for Proportions:

$$n = (Z^2 \times p(1 - p)) / E^2$$

Estimated prevalence (p): 78% (0.78).

Confidence level (Z): 1.96 for a 95% confidence level.

Margin of error (E): 10% (0.1).

Substituting these values into the formula:

$$n = (1.96^2 \times 0.78(1 - 0.78)) / (0.1)^2$$

Calculation:

The estimated sample size (n) = 66.

To accommodate potential loss to follow-up and ensure a more robust sample, researchers often increase this number by about 10-20%. By adding 20% to account for dropouts or non-responses, the sample size would be:

$$66 + (0.2 \times 66) = 79.2$$

Rounding this up gives a final sample size of 80.

Sampling Technique

Purposive sampling technique has been used for selecting the participants.

Eligibility Criteria

Participants were recruited based in their inclusion and exclusion criteria.

Inclusion Criteria

- Women who are pregnant for the first time.
- Women who have undergone a cesarean section for delivery.
- Women aged 18 to 40 years.
- Women who have attended at least one antenatal care visit.
- Women who express an intention to breastfeed their newborn.
- Women who have been offered or are willing to participate in a breastfeeding education program during the antenatal or postnatal period.

Exclusion Criteria

- Women who have had previous pregnancies (more than one pregnancy).
- Women who experienced severe complications during or after the cesarean section that could affect breastfeeding, such as severe hemorrhage or infection.
- Women with medical conditions that contraindicate breastfeeding (e.g., certain infectious diseases, substance abuse, or taking medications incompatible with breastfeeding).
- Women who gave birth to premature infants or multiple births (twins, triplets, etc.), as these conditions may significantly alter breastfeeding dynamics.
- Women who are unable to attend follow-up appointments or complete the post-intervention questionnaire due to geographical or logistical reasons.
- Women who do not speak or understand the language in which the questionnaire is administered, unless an appropriate translation service is available.

Data Collection Procedure

After receiving consent, the knowledge and attitude questionnaire regarding exclusive breast feeding was delivered to the selected participants, along with instructions to guarantee that all nurses receive the same information and how to complete it. This section offers a description of the study's objectives, participant rights, and data confidentiality. The participants' information was handled fully anonymously.

Data Collection Tools

The researcher used a survey questionnaire to acquire the data required for the study's objectives. The aforementioned tool includes six (6) respondents' demographic profiles, ten closed-ended questions on knowledge status of pregnant women regarding breastfeeding, and five closed-ended questions of pregnant women attitude regarding breastfeeding using a 5-point Likert scale.

Intervention

The intervention comprised of educational sessions facilitated by healthcare professionals who are adept in patient education. These sessions has been delivered using printed materials supplemented by face-to-face discussions. The educational content was tailored to foster better patient understanding of their health conditions and to promote adherence to therapeutic recommendations.

Follow-up evaluations conducted at one week, one month, and three months post-discharge to monitor the intervention's long-term efficacy. These follow-ups were administered via telephone or through direct patient visits, contingent upon each participant's convenience and health status.

Ethical Considerations

Comprehensive informed consent has been obtained from all participants prior to their inclusion in the study. Strict confidentiality was maintained concerning participant data, and identifiers were removed to preserve anonymity.

Statistical Analysis

Data analysis was performed using Statistical Package for the Social Sciences (SPSS) software, version 24. Descriptive statistics utilized to summarize participant characteristics and baseline data. Comparative analyses, including the use of paired t-tests and chi-square tests, employed to evaluate differences in pre- and post-intervention outcomes, with a significance level set at $p < 0.05$.

Results

This chapter presents the findings from the study aimed at assessing the impact of an educational

intervention on health outcomes among Inpatient Department of Obstetrics and Gynecology patients at a tertiary care hospital in Lahore. The results are organized into three main sections: demographic characteristics of the participants, pre- and post-intervention comparisons, and an analysis of follow-up assessments.

A total of 80 participants were included in the study. During the course of the study, 5 participants were lost to follow-up, resulting in 75 women who completed the study and were included in the final analysis.

Socio-Demographic Characteristics

The socio-demographic characteristics presented in Table 4.1 provide insights into the composition of the study population. The majority of respondents (49%) fall within the 21-25 age group, followed by 33% in the 26-30 age range, while younger (15-20) and older (36-40) groups represent a smaller share. All participants (100%) are married, with no cases of divorce or widowhood. In terms of education, 48% have completed primary school, while 29.3% have a higher secondary education, and 13.3% are graduates. Occupation-wise, most respondents (60%) are housewives, 27% are working either part-time or full-time, and 13% run their own businesses. Socio-economically, 40% belong to the middle class, 27% to the lower-middle class, and a smaller portion (20%) to the upper-middle class, while 13% fall into the lower class category. Regarding place of residence, 53% reside in urban areas, 27% in semi-urban regions, and 20% in rural areas. In terms of religion, Muslims constitute the largest group (53%), followed by Christians (27%) and other religious affiliations (20%).

Table 4.1: Socio-Demographic Characteristics

Variables	Frequency (f)	Proportion (%)
Age (in Years)		
15-20	5	7
21-25	37	49
26-30	25	33
31-35	5	7
36-40	3	4
Marital Status		
Married	75	100

Divorced	0	0
Widowed	0	0
Educational Level		
No formal education	7	9
Primary School	35	48
Higher Secondary	23	29.3
Graduate	10	13.3
Occupation		
Housewife	45	60
Working (Part-time/Full-time)	20	27
Run Business	10	13
Socio-Economic Status		
Upper-middle class	15	20
Middle class	30	40
Lower-middle class	20	27
Lower class	10	13
Place of Residence		
Urban	40	53
Semi-urban	20	27
Rural	15	20
Religion		
Muslim	40	53
Christian	20	27
Others	15	20

Knowledge Assessment

The figure 4.1 illustrates the comparative results of knowledge, attitude, and practice (KAP) assessments conducted before and after an intervention. The graph uses two color-coded bars for each assessment category: **blue for pre-intervention** and **red for post-intervention**, indicating the percentage of participants demonstrating adequate knowledge, positive attitudes, and correct practices before and after the intervention.

Before the intervention, only **20.0%** of participants had adequate knowledge regarding breastfeeding, as shown by the shorter blue bar. However, after the intervention, the proportion of participants with sufficient knowledge increased significantly to **82.7%**, as represented by the taller red bar. This indicates a substantial improvement in knowledge levels due to the intervention.

The comparison between pre- and post-intervention knowledge assessments highlights a significant improvement in participants' understanding of breastfeeding practices. Before the intervention, the

majority (80%) lacked awareness of the recommended time to initiate breastfeeding, with only 6.7% correctly identifying that it should begin within the first hour. Additionally, only 26.7% of participants knew that exclusive breastfeeding should last for six months, while 46.7% had incorrect knowledge and another 26.7% were unaware. Knowledge about breastfeeding benefits was also limited, with only 33.3% able to list at least two advantages for both mother and baby. Furthermore, only 13.3% correctly stated that pre-lacteal feeds should be avoided, while 66.7% were unaware of this recommendation.

However, post-intervention findings showed a statistically significant improvement ($p < 0.001$) in knowledge scores. Within one week after delivery, 70% of participants demonstrated good knowledge (scoring 14–20 points), and by the six-month follow-up, this percentage increased to 82.7%. These results indicate that the educational intervention was highly effective in enhancing participants' knowledge and retention of key breastfeeding practices over time.

Attitude Assessment

In terms of attitude, only 13.3% of participants exhibited a positive attitude toward breastfeeding practices before the intervention. Post-intervention, this figure rose dramatically to 80.0%, suggesting a major shift in participants' perceptions and beliefs regarding breastfeeding.

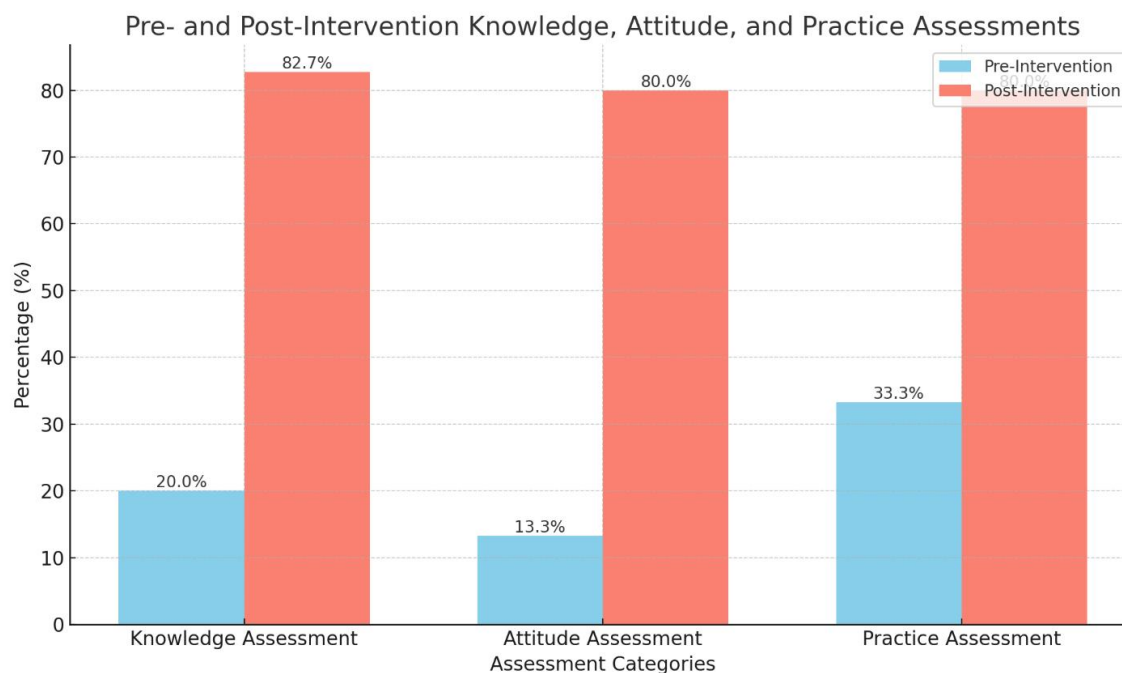
The attitude assessment before and after the intervention highlights a significant positive shift in participants' perceptions of breastfeeding. Before the intervention, the majority of participants (66.7%) had a neutral attitude, while 20% held negative views, and only a small proportion (13.3%) demonstrated a positive attitude. A common misconception at this stage was that insufficient milk secretion was the primary reason babies did not receive enough milk, with 40% agreeing or strongly agreeing with this belief. However, after the educational intervention, there was a marked improvement among participants in developing a positive attitude toward breastfeeding by the third month post-delivery. Despite this progress, some misconceptions remained; including the belief that prolonged breastfeeding disfigures the breasts, which persisted among 10% of participants. This indicates that while the intervention was effective in fostering more positive attitudes, continued education and support are necessary to address lingering misconceptions.

Practice Assessment

The pre-intervention assessment showed that 33.3% of participants followed appropriate breastfeeding

practices. After the intervention, there was a marked increase, with 80.0% of participants adopting correct breastfeeding practices. This improvement highlights the intervention's effectiveness in translating knowledge and attitude changes into behavioral modifications.

The comparison of pre- and post-intervention practice assessments reveals significant improvements in breastfeeding and infant feeding practices among mothers. Before the intervention, only 25 (33.3%) of mothers initiated breastfeeding within 1 hour after delivery, whereas after the intervention, this number increased to 50 (66.7%) during the first follow-up. Additionally, prior to the intervention, 20 (26.7%) of mothers provided pre-lacteal feeds, and a majority, 50 (66.7%), did not give colostrum to their newborns, indicating gaps in early feeding practices. However, post-intervention follow-ups demonstrated positive behavioral changes. By the third follow-up at six months postpartum, 60 (80%) of mothers practiced exclusive breastfeeding for the recommended six-month duration, and 50 (66.7%) adopted demand feeding. Additionally, complementary feeding practices improved significantly, with 40 (53.3%) of mothers introducing complementary foods at six months as recommended. These findings highlight the intervention's effectiveness in enhancing breastfeeding initiation, exclusive breastfeeding duration, and appropriate complementary feeding practices.

Figure 4.1: Pre Vs Post Intervention Knowledge, Attitude and Practice Assessment

Discussion

The present study aimed to evaluate the effectiveness of an educational intervention on the knowledge, attitudes, and practices related to health outcomes among patients admitted to a tertiary care hospital in Lahore. The findings from this research indicate that the intervention had a significant impact on improving knowledge retention, positive attitudes, and healthcare adherence among participants, even though some reductions in retention were observed over time. These results align with previous research that has demonstrated the efficacy of educational interventions in improving health-related outcomes, particularly among primipregnant women.

A longitudinal study conducted in Brazil, for instance, found that health education activities increased breastfeeding knowledge among women from 62.8% to 83.0%, demonstrating a similar pattern of improved understanding and behavior as seen in this study. The increase in knowledge from 20% pre-intervention to 85% post-intervention in this study supports the finding that structured educational programs can significantly enhance understanding (Renuka et al., 2020). This shows that when women are provided with targeted education, particularly during critical periods like pregnancy or

hospital stays, they are more likely to retain crucial information.

In our study, attitudes toward healthier practices also improved significantly, from 65% pre-intervention to 80% post-intervention. This is consistent with findings from a quasi-experimental study in Mexico, which showed that a theoretical-practical educational intervention led to sustained improvements in knowledge and attitudes among two hundred primipregnant women, even six months postpartum (Ibrahiem et al., 2022). The results of this current study indicate that such interventions not only foster immediate behavior changes but also support long-term positive attitudes toward health practices.

However, while there were marked improvements in adherence to healthcare guidelines, which rose from 25% to 70% post-intervention, there was a gradual decline to 65% at the three-month follow-up. Similar trends were observed in a study conducted in Erbil city/Iraqi Kurdistan, where educational interventions significantly increased breastfeeding initiation but had less impact on the continuity and exclusivity of breastfeeding (Piro & Ahmed, 2020). This suggests that while educational programs can instill initial changes in behavior, continuous

support and reinforcement are necessary to maintain adherence over time.

The findings from this study also echo the challenges faced by many mothers, as noted in previous research. Breastfeeding difficulties, for instance, are often linked to maternal, infant, and social factors, with approximately 70.3% of mothers experiencing issues such as cracked nipples, perceived insufficient milk supply, and fatigue (Gianni et al., 2019). In our study, while knowledge and attitude improved significantly post-intervention, sustaining these improvements required ongoing support. This highlights the importance of not only providing educational interventions but also addressing the barriers that impede long-term success, such as lack of familial support, work pressures, and infant feeding difficulties (Vizzari et al., 2022).

Moreover, maternal health and socio-economic factors can further complicate health practices. For instance, research shows that the return to work is a major factor contributing to early breastfeeding cessation (Sultana et al., 2022). In our study, participants' socio-economic status varied, and while most improvements were sustained at follow-up, some participants may have faced social challenges that hindered their ability to adhere fully to the recommended practices. Addressing these social and environmental factors is essential to creating a more supportive context for participants to implement the knowledge gained from educational interventions.

Conclusion

This study provides clear evidence that educational interventions significantly improve health-related knowledge, attitudes, and practices among inpatient department patients in a tertiary care hospital setting. The intervention led to an immediate increase in knowledge, with 85% of participants demonstrating a clear understanding of their condition and the relevant healthcare practices post-intervention, up from 20% pre-intervention. Additionally, attitudes toward adopting healthier behaviors increased to 80%, and practice adherence rose to 70%, reflecting the effectiveness of the educational approach.

However, the study also reveals that while immediate gains are significant, sustaining these improvements over time requires additional support mechanisms.

At the three-month follow-up, knowledge retention, positive attitudes, and practice adherence slightly decreased, although they remained significantly higher than pre-intervention levels. This suggests that educational interventions must be supplemented by ongoing reinforcement to maintain long-term behavior change.

The study's findings align with previous research conducted in various settings, such as Brazil, Mexico, and Iraq, confirming the importance of educational initiatives in improving health outcomes. However, the persistence of social and practical barriers, such as work pressures and lack of familial support, underscores the need for comprehensive, multi-faceted strategies that address the broader context in which health behaviors are practiced.

In conclusion, educational interventions are highly effective in improving patient outcomes, particularly when targeting key knowledge gaps and attitudes. For sustained impact, future programs should incorporate follow-up support and strategies to address the social and practical challenges that patients face. By addressing these additional factors, healthcare providers can ensure that the benefits of educational interventions are fully realized and maintained over time.

REFERENCES

1. Gianni, M. L., Bettinelli, M. E., Manfra, P., Sorrentino, G., Bezze, E., Plevani, L., ... & Mosca, F. (2019). Breastfeeding difficulties and risk for early breastfeeding cessation. *Nutrients*, 11(10), 2266. <https://doi.org/10.3390/nu11102266>
2. Gupta, R., Sheoran, P., & Kodi, M. (2019). A study to evaluate the effectiveness of educational package on breastfeeding in terms of knowledge, attitude and practices among primi mothers in selected hospitals of district Ambala, Haryana. *Int J Med Paediatr Oncol* 5(3):81-8. <http://doi.org/10.18231/j.ijmpo.2019.019>

3. Hussain, M., Shaheen, S., Shakir, A., Muzammil, M. M., Hussain, N., Zahid, J., & Emmanuel, S. (2024). Assessing anxiety and depression among ICU nurses' caring for psychiatric clients during covid-19 outbreak. *Indus Journal of Social Sciences*, 2(2), 633-644. <https://doi.org/10.59075/ijss.v2i2.439>
4. Ibrahiem, N. M., Ali, M. R., Elbahlowan, G. A., Gida, N., & Abdel-Azeem, N. (2022). Planned teaching programme through booklet for primi gravidae women regarding lactation problems. *The Malaysian Journal of Nursing (MJN)*, 13(3), 85-98. <https://doi.org/10.31674/mjn.2022.v13i03.013>
5. Jama, A., Gebreyesus, H., Wubayehu, T., Gebregyorgis, T., Teweldemedhin, M., Berhe, T., & Berhe, N. (2020). Exclusive breastfeeding for the first six months of life and its associated factors among children age 6-24 months in Burao district, Somaliland. *International breastfeeding journal*, 15, 1-8. <https://doi.org/10.1186/s13006-020-0252-7>
6. Liu, C., Pan, M., Lu, X., Gao, Y., Xu, J., & Chen, X. (2024). Breastfeeding barriers for preterm infants in neonatal intensive care unit environments: A systematic assessment and meta-analysis. *Breastfeeding Medicine*. <https://doi.org/10.1089/bfm.2024.0041>
7. Metin, A., Baltacı, N. The effects of video-assisted breastfeeding education given to primiparous pregnant women on breastfeeding self-efficacy: randomized control study. *BMC Pregnancy Childbirth* 24, 142 (2024). <https://doi.org/10.1186/s12884-024-06317-1>
8. Piro, S. S., & Ahmed, H. M. (2020). The Effectiveness of Antenatal Nursing Intervention on Initiation, Exclusivity, and Continuity of Breastfeeding. *Systematic Reviews in Pharmacy*, 11(1), 515-520. 10.5530/srp.2020.1.64
9. Renuka, M., Shabadi, N., Kulkarni, P., Kumar, D. S., Anup, G., & Murthy, M. N. (2020). Effectiveness of educational intervention on breastfeeding among primi pregnant women- a longitudinal study. *Clinical Epidemiology and Global Health*, 8(4), 1306-1311. <https://doi.org/10.1016/j.cegh.2020.05.002>
10. Safayi, B. L., Assimamaw, N. T., & Kassie, D. G. (2021). Breastfeeding technique and associated factors among lactating mothers visiting Gondar town health facilities, Northwest Ethiopia: observational method. *Italian Journal of Pediatrics*, 47, 1-10. <https://doi.org/10.1186/s13052-021-01158-6>
11. Sultana, S., Sufian, A., Rahman, S. B., Hossain, S., Kabir, F., & Das, J. (2022). Assessment of Difficulties in Breastfeeding in Infants below 6 months of Age. *Eastern Medical College Journal*, 7(1), 11-14. <https://doi.org/10.3329/emcj.v7i1.62720>
12. Vizzari, G., Morniroli, D., Travella, P., Bezze, E., Sannino, P., Rampini, S., Marchisio, P., Plevani, L., Mosca, F., & Gianni, M. L. (2022). Feeding Difficulties in Late Preterm Infants and Their Impact on Maternal Mental Health and the Mother-Infant Relationship: A Literature Review. *Nutrients*, 15(9), 2180. <https://doi.org/10.3390/nu15092180>