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THE FACTORS ANALYSIS AFFECTING BREAST MILK PRODUCTION IN POST-CESAREAN SECTION MOTHERS AT SEMBIRING GENERAL HOSPITAL DELI TUA IN 2026

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Keywords

: Breast Milk Production, Cesarean Section, Postoperative Pain, Rooming-in

ABSTRACT

:Breast milk production is an essential factor for infant health; however, mothers after cesarean section often experience difficulties in breastfeeding due to several influencing factors. This study aimed to analyze the factors affecting breast milk production among post-cesarean section mothers at Sembiring general hospital Deli Tua in 2026. This research employed a quantitative method with a cross-sectional design involving 54 respondents selected through simple random sampling. Data were collected by using questionnaires and analyzed by using univariate and bivariate analysis with the Chi-Square test at a significance level of $p < 0.05$. The results showed a significant relationship between post-cesarean section pain ($p=0.000$), maternal knowledge of breastfeeding position and technique ($p=0.000$), and duration of rooming-in ($p=0.001$) with breast milk production, while maternal motivation to breastfeed was not significantly associated with breast milk production ($p=0.210$). The conclusion of this study that post-operative pain, maternal knowledge, and duration of rooming-in are factors that influence breast milk production in post- cesarean section mothers. Therefore, it is necessary to improve breastfeeding education and optimize the implementation of rooming-in by healthcare professionals.

1. INTRODUCTION

Breast milk is the primary source of nutrition for infants and plays an essential role in supporting growth, development, and immune function. Optimal breastfeeding contributes to improved health outcomes for both infants and mothers (Syari et al., 2022). However, mothers who undergo cesarean section often experience difficulties in breastfeeding due to postoperative pain, limited mobility, and delayed initiation of breastfeeding (Risianti et al., 2021).

Postoperative pain following cesarean section is one of the factors that may affect breast milk production. Uncontrolled pain can inhibit the oxytocin reflex, resulting in reduced milk ejection and suboptimal breast milk production (Labibah, 2022). A study by (Reviana et al., 2025) reported a significant relationship between pain intensity and breastfeeding outcomes among post-cesarean section mothers.

In addition to physical factors, maternal knowledge regarding proper breastfeeding position and technique

plays an important role in supporting effective breastfeeding. Adequate knowledge enables mothers to breastfeed correctly, leading to effective milk removal and increased breast milk production (Widiastuti & Jati, 2021). Lack of knowledge may result in breastfeeding problems such as nipple pain and ineffective suckling (Puspitasari et al., 2022).

Rooming-in is a hospital care practice that allows mothers and newborns to stay together for 24 hours a day. This practice provides greater opportunities for frequent breastfeeding, which can stimulate breast milk production. Previous studies have shown that rooming-in is associated with smoother breast milk production among post-cesarean section mothers (Cahayani et al., 2025). Therefore, this study aims to analyze the factors affecting breast milk production among post-cesarean section mothers at Sembiring General Hospital Deli Tua.

2. METHODS

This study employed a quantitative cross-sectional design conducted at Sembiring General Hospital Deli Tua in 2026. A total of 54 post-cesarean section mothers were selected using simple random sampling. Independent variables included postoperative pain, maternal knowledge, maternal motivation, and duration of rooming-in. The dependent variable was breast milk production. Data were analyzed using Chi-Square tests with $p < 0.05$.

3. RESULTS

Table 1. Relationship between factors and breast milk production.

Variable	Category	n	p-value
Postoperative Pain	Yes	30	0.000
Maternal Knowledge	Good	32	0.000
Rooming-in Duration	Long	28	0.001
Motivation	High	25	0.210

4. DISCUSSION

The results of this study indicate that postoperative pain is significantly associated with breast milk production among post-cesarean section mothers. This finding is consistent with the study by (Lilia, 2023), which reported that higher levels of pain may interfere with breastfeeding by inhibiting the oxytocin reflex. Postoperative pain can reduce maternal comfort and negatively affect the breastfeeding process (Malika et al., 2024).

Maternal knowledge regarding breastfeeding position and technique was also found to be significantly related to breast milk production. Mothers with adequate knowledge tend to breastfeed more effectively, resulting in optimal breast emptying and increased milk production. This result is in line with the findings of (Apriana, 2023) and (Ariani et al., 2021), who emphasized the importance of breastfeeding knowledge in supporting successful breastfeeding among postpartum mothers.

Furthermore, the duration of rooming-in showed a significant association with breast milk production. Continuous mother–infant contact allows mothers to breastfeed more frequently, which stimulates prolactin release and supports milk production. This finding is consistent with the study conducted by (Yulianto et al., 2022), which demonstrated a significant relationship between rooming-in and the smoothness of breast milk production among post-cesarean section mothers.

However, maternal motivation did not show a significant association with breast milk production. This finding suggests that physical and environmental factors, such as postoperative pain and hospital care practices, may have a greater influence on breast milk production than maternal motivation alone (Firdawsyi Nuzula et al., 2022).

5. CONCLUSION

Postoperative pain, maternal knowledge, and duration of rooming-in significantly influence breast milk production in post-caesarean section mothers, while maternal motivation does not show a significant association.

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REFERENCES

- Apriana, R. (2023). Faktor-Faktor yang Berhubungan dengan Produksi Asi Ibu Nifas. *SIMFISIS: Jurnal Kebidanan Indonesia*, 3(1), 517–525.
<https://doi.org/10.53801/sjki.v3i1.168>
- Ariani, P., Ariescha, P. A. Y., Sari, N. M., & Terulin, A. (2021). Hubungan Umur, Paritas Dan Frekuensi Menyusui Dengan Produksi Air Susu Ibu (ASI) Di Klinik Andri Kotabangun. *Jurnal Doppler*, 5(2), 26–30.
- Cahayani, J. A., Amalia, L., Suparto, T. A., Keperawatan, P. S., Pendidikan, F., & Indonesia, U. P. (2025). *Analisis faktor yang memengaruhi produksi ASI pada ibu melahirkan sectio caesar dan normal*. 19(4), 739–745.
- Firdawsyi Nuzula, Oktaviana, M. N., & Purwitaningtyas, R. Y. (2022). Membangun Kesadaran dalam Mendukung Keberlangsungan Pemberian ASI Eksklusif Sebagai Upaya untuk Meningkatkan Kualitas Hidup Perempuan. *Society : Jurnal Pengabdian Dan Pemberdayaan Masyarakat*, 2(2), 89–102.
<https://doi.org/10.37802/society.v2i2.183>
- Labibah, D. I. (2022). Efektivitas instrumen numeric rating scale dan visual analog scale pada pasien post operasi sectio caesarea : literature review. *Jurnal Universitas Aisyiyah Yogyakarta*, 11(1), 12.
- Lilia, D. (2023). 249-Article Text-562-1-10-20231201. 3(4), 170–188.
- Malika, R., Arsanah, E., Kesehatan, F., & History, A. (2024). *PENDAHULUAN Sectio caesar (SC) merupakan tindakan bedah operasi yang dilakukan oleh dokter spesialis bedah dan dokter kandungan , lokasi pembedahan berada pada perut dalam rahim ibu kemudian dibuatkan jalan keluarnya bayi . Tindakan Sectio Caesarea dila*. 5(3), 293–306.
- Puspitasari, I., Wigati, A., Muna, N., Prodi, D., Kebidanan, P., Muhammadiyah, U., Paritas, S., Keluarga, D., & Menyusui, L. (2022). *Faktor-faktor yang mempengaruhi produksi asi pada ibu nifas di rsi pku muhammadiyah tegal*. 9–20.
- Reviana, R., Sutra, A. K., Ilmi, I., Humaira, F. A., & Mustika, A. (2025). *Hubungan Tingkat Nyeri dengan Pemberian ASI pada Ibu Post Sectio Caesarea di Ruang Camelia B RSU Bhakti Asih Kota Tangerang 1 . PENDAHULUAN Air Susu Ibu (ASI) merupakan adalah cairan yang dihasilkan oleh kelenjar payudara yang di stimulus oleh hormon prolaktin dan oksitosin . ASI menjadi sumber gizi yang sangat bermanfaat dan dapat menyesuaikan dengan kebutuhan nutrisi tubuh bayi (Nur , 2019)*.
- Risyanti, S., Carolin, B. T., Dinengsih, S., Kesehatan, I., Sarjana, P., Kebidanan, T., & Nasional, U. (2021). Abstract factors analysis of breastmilk production of post caesarean section. *Jurnal Kebidanan Malahayati*, 7(4), 607–612.
- Syari, M., Arma, N., & Mardhiah, A. (2022). Faktor Yang Mempengaruhi Produksi Asi Pada Ibu Menyusui. *Maternity and Neonatal : Jurnal Kebidanan*, 10(01), 1–9.
<https://doi.org/10.30606/jmn.v10i01.1306>
- Widiastuti, Y. P., & Jati, R. P. (2021). Kelancaran Produksi Asi Pada Ibu Post Partum Dengan Operasi Sesar. *Jurnal Keperawatan Dan Kesehatan Masyarakat Cendekia Utama*, 9(3), 282. <https://doi.org/10.31596/jcu.v9i3.633>
- Yulianto, A., Safitri, N. S., Septiasari, Y., & Sari, S. A. (2022). Frekuensi Menyusui Dengan

Kelancaran Produksi Air Susu Ibu. *Jurnal Wacana Kesehatan*, 7(2), 68.
<https://doi.org/10.52822/jwk.v7i2.416>

APPENDIX

The appendix contains research instruments, including questionnaires used to assess postoperative pain, maternal knowledge of breastfeeding position and technique, maternal motivation, duration of rooming-in, and breast milk production.