

## Anxiety Level of Post-Sectio Caesarea with Breast Milk Production

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### ABSTRACT

**Introduction:** Breastfeeding is one of the most effective ways to provide nutrition and keep babies healthy. Exclusive breastfeeding is also able to reduce infant morbidity and mortality, but currently, exclusive breastfeeding has reached the presentation stage. Milk production that is not sufficient for the baby's needs will cause the failure of exclusive breastfeeding. The psychological preparation of a mother before breastfeeding is an important factor that influences the success of breastfeeding. Mothers anxiety, stress, excessive worry, and frustration play a very important role in the success of exclusive breastfeeding. Constant anxiety, a lack of self-confidence, depression, and various other forms of emotional stress can prevent a mother from breastfeeding her baby. **Objective:** This study aims to determine the relationship between the anxiety level of post-sectio caesarea mothers with breast milk production at the Ciamis General Hospital. **Method:** The research method is quantitative with a cross-sectional research design. The sampling technique was accidental sampling, namely of post-SC mothers at the Ciamis General Hospital, namely as many as 27 people. The research instrument was a questionnaire sheet. Data analysis used univariate and bivariate analysis with the chi-square statistical test. **Result:** The result showed the anxiety level of post-section caesarea mothers, most of the categories of moderate anxiety were found, namely 14 people (51.9%). Nearly half of the post-SC mother's milk production was in the lower category, namely 12 people (44.4%). The statistical test results showed a p value of 0.024 (p 0.05). **Conclusion:** There is a relationship between the anxiety level of post section caesarea mothers and milk production in Ciamis General Hospital. These results prove that anxiety is one of the factors that can affect the breast milk production of breastfeeding mothers.

**Keywords:** anxiety, breast milk production, post-sectio caesarea

## **Introduction**

The growth and development of the baby are very dependent on the amount of breast milk, which includes energy and other nutrients contained in breast milk. Since breast milk is a nutritious food, no additional ingredients are needed. Breast milk is easily digested by babies and quickly absorbed. Breast milk is the highest level of baby food and therefore an ideal source of nutrition with a balanced composition and adapted to your baby's growth and development needs. At the same time, breast milk is very rich in nutrients that encourage the growth of brain cells and the development of the nervous system, so that all mothers must exclusively breastfeed their babies until they are 6 months old (Winarno, 2020).

In 2018, the percentage of newborns receiving exclusive breastfeeding in Indonesia was 67.74%, which fell short of the national target of 80% (Kemenkes RI, 2020). The exclusive breastfeeding coverage in West Java Province in 2018 was 90.79% (Suyanti & Anggraeni, 2020). Based on the percentage from the West Java Provincial Health Office, Ciamis Regency has achieved only 48.22% of exclusive breastfeeding for newborns, so the target has not been reached (Dinkes Jawa Barat, 2018).

The mother's factor that has problems in breastfeeding is milk production. Problems with milking in the first days of life may be due to a decrease in the stimulation of the hormone oxytocin. The psychological factor is something to consider in the same way as fear. After giving birth, mothers experience physical and physiological changes that lead to psychological changes. This condition can affect the lactation process. The facts show that the way the hormone oxytocin works is affected by mental illness. The psychological preparation of a mother before breastfeeding is an important factor that influences the success of breastfeeding. Mothers' anxiety, stress, excessive worry, and frustration play a very important role in the success of exclusive breastfeeding. Constant anxiety, a lack of self-confidence, depression, and various other forms of emotional stress can prevent a mother from breastfeeding her baby. Fear is also a psychological factor that plays a role. Research conducted by (Winarno, 2020) shows that there is a relationship between maternal anxiety and breastfeeding during childbirth.

Anxiety experienced by postpartum mothers will affect milk production; mothers who are not worried will secrete more milk than mothers who are anxious (Korompis, 2019). Breast milk production will run smoothly if the mother's mood feels comfortable and happy, which can affect the smooth flow of breast milk; on the other hand, mothers who are anxious and stressed out will find that milk production is not smooth (Winarno, 2020).

According to the results of the study prior to the research conducted at the Ciamis General Hospital, according to interviews with 10 post-sectio caesarea mothers, no one had conducted counseling or examined the level of anxiety given to post-sectio caesarea mothers, so many mothers did not know that the level of anxiety affects milk production. From the observations of researchers, it was found that three people had little milk production.

Post-Sectio Caesarea mothers based on the description above, many post-Sectio Caesarea mothers do not know that the level of anxiety affects the expenditure of breast milk production, so the authors are interested in conducting research on the "Relationship between Anxiety Levels of Post-Sectio Caesarea mothers with breast milk production at the Ciamis General Hospital".

## **Objective**

This study aims to determine the relationship between anxiety level of post-sectio caesarea mothers with breast milk production at the Ciamis General Hospital.

## Method

This research includes analytic and descriptive research with a cross-sectional approach. The population in this study was all post-section caesarea mothers, as many as 27 people. The sample withdrawal method used accidental sampling. The research instrument used a questionnaire sheet. Data processing used univariate analysis to find out the frequency distribution and bivariate analysis to find out the relationship between the variables and the chi-square statistical test with a significance limit of 0.05.

## Result

### 1. Anxiety Level of Post Section Caesarea Mothers

Table 1. Frequency Distribution of Anxiety Levels for Post-Section Caesarea Mothers

No	Anxiety Level of Post-Section Caesarea Mothers	Frequency (f)	Percentage (%)
1	No Anxiety	5	18,5
2	Mild Anxiety	8	29,6
3	Moderate Anxiety	14	51,9
	Total	27	100,0

Based on the table above, it was found that the anxiety level of post-section caesarea mothers was mostly in the moderate anxiety category, namely as many as 14 people (51.9%), and a small portion in the category of no anxiety, namely as many as 5 people (18.5%).

### 2. Breast Milk Production

Table 2. Distribution of Breast Milk Production Frequency

No	Breast Milk Production	Frequency (f)	Percentage (%)
1	Good	6	22,2
2	Enough	9	33,4
3	Less	12	44,4
	Total	27	100,0

Based on the table above, it was found that the distribution of breast milk production for post-SC mothers was almost half in the less category, namely 12 people (44.4%), and a small portion in the good category, namely 6 people (22.2%).

### 3. Bivariate Data Research Results

Table 3. Frequency Distribution of The Relationship of Anxiety Levels of Post-Section Caesarea Mothers with Breast Milk Production at the Ciamis General Hospital

No	Anxiety Level of Post-Section Caesarea Mothers	Breast Milk Production						Total		P-value
		Good		Enough		Less		f	%	
		f	%	F	%	F	%			
1	No Anxiety	3	60,0	2	40,0	0	0	5	100	0,024
2	Mild Anxiety	2	25,0	4	50,0	2	25,0	8	100	
3	Moderate Anxiety	1	7,2	3	21,4	10	71,4	14	100	
	Total	6	22,2	9	33,4	12	44,4	27	100	

From the table above, it is known that of the 14 respondents with moderate anxiety levels for post-section caesarea mothers, 10 (71.4%) produced milk in the less category and 1 (7.28%) produced milk in the good category. Of the 5 respondents with anxiety levels for post-section caesarea mothers, there was no anxiety category; as many as 3 people

(60.0%) produced breast milk in the good category, and as many as 2 people (40.0%) produced milk in the enough category.

The results of the statistical analysis using the chi-square test obtained a p-value of  $0.024 < 0.05$ , so the research hypothesis ( $H_0$ ) was rejected and ( $H_a$ ) was accepted, meaning that there is a significant relationship between the anxiety level of post-sectio caesarea mothers with breast milk production at the Ciamis General Hospital.

## Discussion

### 1. Univariate Analysis

#### a. Anxiety Level of Post-Sectio Caesarea Mothers

Based on the research that has been done, it shows that the anxiety level of post-section caesarea mothers is found in the majority of moderate anxiety categories, namely as many as 14 people (51.9%); this is influenced by the acceptance and management of stress; the better the stress management of post-section caesarea mothers, the lower the anxiety level; this is supported by research conducted by (Kusumawati, 2020) that the coping mechanism possessed by the mother affects the level of anxiety in postpartum mothers. Anxiety is being characterized by mothers who are always restless, feel afraid, feel anxious, feel uneasy, and always have a bad feeling that if breast milk does not come out, it will cause the baby to lack nutrition and become sick and always cry (Rahayu, Hastuti, & Rosidah, 2016).

The anxiety experienced by respondents in the moderate anxiety category was experienced by primigravida mothers, where mothers with primigravida mothers were 69.4%, this was supported by the theory which stated that the anxiety of postpartum SC mothers with moderate levels of anxiety was more common in primigravid mothers who had no experience caring for babies (Wulansari et al., 2020).

This is in line with a study conducted by (Suprayitno, 2019), which stated that anxiety largely depends on a person's life experiences. Reinforced by research conducted by (Korompis, 2019), the level of anxiety in primiparous mothers is higher than that in multiparous mothers. Mothers who have just given birth for the first time will feel worried about the life they will face when caring for their babies, so that primiparous mothers need more time to adapt after giving birth, while mothers who have given birth more than once are used to the presence of new family members because they have previous experience.

Anxiety is a familiar term used for anxiety, worry, agitation, and restlessness with physical symptoms. Anxiety is a vague and pervasive worry related to feelings of insecurity and helplessness. This emotional state has no specific target. Fear is subjectively experienced and transmitted between people (Syah, Pujiyanti, & Widyantoro, 2019).

Anxiety in post-SC mothers in the moderate category is influenced by factors of education, age, parity, and social support, such as husbands and family members who always accompany the respondent during childbirth. Low support from husbands and families for postpartum mothers will increase depression, anxiety, and stress (Martiana, 2021).

The assumptions of the researchers are that the mental and psychological factors of post-SC mothers have a very large influence. The feelings of stress, pressure, and discomfort experienced by a mother make it difficult to concentrate. Both family

support, namely the attention of husband and family, is lacking for post-SC mothers who have no experience in giving birth or caring for their babies.

#### b. Breast Milk Production

Based on the research that has been done, it shows that the distribution of breast milk production for post-SC mothers is almost half in the less category, namely as many as 12 people (44.4%). Insufficient milk production is caused by postpartum mothers who experience anxiety. Breast milk due to anxiety can stop the release of the hormone oxytocin (urinary reflex), which inhibits oxytocin and causes imperfect milk flow, and the hormone prolactin, which inhibits milk production, can be hampered. This affects exclusive breastfeeding in infants (Wulansari et al., 2020). Insufficient milk production causes malnutrition in infants, affecting their behavior, immunity, growth, and development (Korompis, 2019). Furthermore, the effects of insufficient milk production can lead to early cessation of breastfeeding and the use of formula milk to meet the nutritional needs of infants (Aji, 2021).

Theoretically, breast milk is produced by a woman's mammary glands during the breastfeeding process. The success of lactation is influenced by pre-pregnancy and pregnancy conditions, especially in the second trimester of pregnancy when the breasts experience enlargement due to the growth and differentiation of lobular alveoli and mammary epithelial cells. During breast augmentation, the hormones prolactin and placental lactogen are actively involved in milk production. Breastfeeding involves two important processes, namely the milk ejection reflex and the milk ejection hormone, both of which are influenced by the hormones prolactin and oxytocin, which are regulated by the hypothalamus. Like other hormonal arrangements, the function of the hypothalamus corresponds to the commands of the mother's brain and emotions. The milk ejection process also depends on the milk ejection reflex, and sucking on the nipple stimulates smooth muscle fibers in the walls of the milk ducts, allowing milk to flow smoothly (Maryunani, 2015).

The research assumptions are that the majority of mothers have non-fluent breast milk influenced by anxiety, psychological factors, nutrition, family support, and health worker support because, biologically, milk production occurs due to smooth muscle cells around the breast glands that constrict so that they squeeze out the milk. Shrinkage of the breasts is influenced by the hormone oxytocin. Work well, the baby will not get enough breast milk even though the milk production is sufficient.

#### 2. Bivariate Analysis

Based on the results of the analysis of the relationship between the anxiety level of the post-section caesarea mother and the milk production in Ciamis General Hospital, the results showed that out of 14 respondents with the anxiety level of the post-section caesarean mother in the moderate anxiety category, 10 people (71.4%) produced milk in the lower category, and as many as 1 person (7.2%) produced breast milk in the higher category. Of the 5 respondents with the level of anxiety for post-section caesarean mothers in the category of no anxiety, 3 people (60.0%) produced breast milk in the good category, and 2 people (40.0%) produced milk in the sufficient category.

The results of statistical analysis with the chi-square test obtained a p-value (0.001) <0.05, so the research hypothesis (Ho) was rejected and (Ha) was accepted, meaning that there is a significant relationship between the anxiety level of post-sectio caesarea mothers and milk production in Ciamis General Hospital.

Post-SC mothers who experience anxiety will cause the work function of the hormones prolactin and oxytocin to decrease; this happens due to the release of epinephrine, which causes vasoconstriction of the blood vessels in the alveoli, so that oxytocin is blocked and causes the flow of breast milk to be imperfect and inhibits the hormone prolactin to produce breast milk (Septianingrum, 2020). Research (Supriyatiningsih, 2021) explains that imperfect let-down reflexes will cause an accumulation of ASI in the alveoli, which is characterized by enlarged breasts. Enlarged breasts can cause abscesses and pain. This pain can cause the mother to become stressed, so the mother will be worried about the low production of breast milk. This cycle will continue to repeat itself and inhibit the production of breast milk, so that the mother will experience anxiety because the production of breast milk is inhibited or not smooth.

The results of the study revealed that 14 respondents with moderate anxiety levels for post-section caesarean mothers (71.4%) produced breast milk in the less anxious category. Newborn stimulation helps expel milk from the mother. This is commonly referred to as Let Down Reflex (LDR). The hypothalamus is easily stimulated by the baby's sucking, the smell of the baby felt by the mother, the baby's cry, or even the mere memory of the baby, stimulating the nerves in the brain to produce prolactin and oxytocin from behind. Increases and releases the pituitary gland into circulation. Once the circulation reaches the breast tissue and affects the myoepithelial cells, this process causes contraction and the release of milk. The production and release of breast milk can be affected by various stimuli. LDR itself is inhibited when stress, anxiety, or fear trigger sympathetic-mediated vasoconstriction, blocking access of oxytocin to the chest myoepithelium. Stress and anxiety can also increase the production of dopamine in the body, which can reduce prolactin production, which affects milk production (Wulansari et al., 2020).

According to (Meltzer-Brody, 2017) research states that anxiety is related to breastfeeding in mothers. According to this study, many mothers decide to stop breastfeeding because they are afraid when their baby is two months old and they feel that their baby is not satisfied with breast milk. Another study conducted by (Septianingrum, 2020) also found a relationship between anxiety and milk production. The stronger a person's fear of eating, the more it interferes with milk production. The fear experienced by the mother indirectly affects changes in her own milk production, so that it can inhibit exclusive breastfeeding for newborns.

The results of the study also show that some mothers have a good supply of breast milk. This may be because most of the respondents have a high level of education. Higher education influences respondents' willingness to deal with existing situations by making it easier for them to understand information from health workers, family members, and other sources. One of them is fear. This is supported by research conducted (Pramudianti, Raden, & Suryaningsih, 2017), which shows that the level of education has an effect on sepsis efficacy in early postpartum women after cesarean delivery. The level of education determines one's thoughts and insights. A high level of education helps a person process the information and knowledge he receives. Knowledge helps mothers change their behavior and becomes the basis for caring for newborns.

## **Conclusion**

Based on the results of research on the relationship between the anxiety level of post-section caesarean mothers with breast milk production in Ciamis General Hospital, the following conclusions are drawn:

1. The anxiety level of post-section caesarea mothers was found to be in the moderate anxiety category, namely, 14 people (51.9%).
2. Nearly half of the post-SC mother's milk production was in the less category, namely 12 people (44.4%).
3. There is a relationship between the anxiety level of post-sectio caesarea mothers with breast milk production at the Ciamis General Hospital, as indicated by the chi-square results obtained with an p value of 0.024 (p < 0.05).

## References

1. Aji, D. (2021). Hubungan Tingkat Kecemasan Ibu dengan Ejeksi ASI dalam 24 Jam Pertama Masa Nifas. *Jurnal Keperawatan*, 3(3), 8–14.
2. Dinkes Jawa Barat. (2018). *Target Pemberian ASI Eksklusif di Jawa Barat*. Bandung: Dinas Kesehatan Provinsi Jawa Barat.
3. Kemenkes RI. (2020). Profil Kes Indo 2019. In *Kementrian Kesehatan Republik Indonesia*. Retrieved from <https://pusdatin.kemkes.go.id/resources/download/pusdatin/profil-kesehatan-indonesia/Profil-Kesehatan-indonesia-2019.pdf>
4. Korompis, G. (2019). Hubungan Kecemasan dengan Kelancaran Pengeluaran ASI Pada Ibu Post Partum Selama Dirawat Di Rumah Sakit Ibu dan Anak Kasih Ibu Manado. *Jurnal Keperawatan*, 7(1), 1–8.
5. Kusumawati, P. D. (2020). Analisa Tingkat Kecemasan dengan Percepatan Pengeluaran ASI Pada Ibu Nifas. *Journal for Quality in Women's Health*, 3(1), 101–109.
6. Martiana, A. (2021). Kecemasan Pada Ibu Post Partum Primipara dengan Produksi ASI. *Malahayati Nursing Journal*, 3(3), 459–465.
7. Maryunani. (2015). *Inisiasi Menyusu Dini dan Manajaemen Laktasi*. Jakarta: Trans Info Media.
8. Meltzer-Brody, S. (2017). Associations Between Postpartum epression, Breastfeeding, and Oxytocin Levels in Latina Mothers. *Breastfeeding medicine. The Official Journal of the Academy of Breastfeeding Medicine*, 12(7), 436–442.
9. Pramudianti, D. C., Raden, A., & Suryaningsih, E. K. (2017). Hubungan Tingkat Pendidikan Formal dengan Parenting Selfefficacy Periode Awal Nifas Pada Ibu Pasca Sectio Caesarea. *Jurnal Kebidanan dan Keperawatan*, 13(1), 34–41.
10. Rahayu, P., Hastuti, P., & Rosidah, A. (2016). Hubungan Pemenuhan Nutrisi dan Tingkat Kecemasan Masa Nifas dengan Pengeluaran ASI Ibu di Desa Sumber Kecamatan Sumber Kabupaten Rembang. *Jurnal Ilmu Kebidanan Dan Kesehatan*, 7(2), 62–72.
11. Septianingrum, Y. (2020). Correlation Between Anxiety and Breast Milk Production Among Breastfeeding Mothers in Public Health Center of Jagir, Surabaya. *Nurse and Health. Jurnal Keperawatan*, 9(1), 50–56.
12. Suprayitno, E. (2019). Hubungan Kecemasan Ibu Menyusui dengan Kelancaran Pengeluaran Air Susu Ibu (ASI) Di BPS Kerta Timur Kecamatan Dasuk Kabupaten Sumenep. *Scientific Journal of Midwifery*, 5(2), 51–56.
13. Supriyatningsih, D. (2021). Relationship Between Maternal Anxiety Level and Ejection of Breast Milk in the First 24 Hours of Postpartum Period. *ICoSIHSN 2020*, 33(1), 8–11.
14. Suyanti, S., & Anggraeni, K. (2020). Efektivitas Daun Katuk Terhadap Kecukupan Air Susu Ibu (ASI Pada Ibu Menyusui di Bidan Praktek Mandiri (BPM) Bd. Hj. Iin Solihah, S.ST., Kabupaten Majalengka. *Journal of Midwifery Care*, 1(1), 1–10. <https://doi.org/10.34305/jmc.v1i1.190>
15. Syah, A., Pujiyanti, D., & Widyantoro, T. (2019). Aplikasi Teknik Terapi Musik Kalsik Untuk

- Mengurangi Kecemasan Pada Ibu Menyusui Yang Pernah Terpapar COVID19. *Jurnal Keperawatan*, 1(1), 64.
16. Winarno, F. A. (2020). Hubungan Tingkat Kecemasan dengan Produksi ASI pada Ibu Post Sectio Caesarea di RSUD Muntilan. *Jurnal Keperawatan*, 1(1), 1–10.
  17. Wulansari, I., Hafid, R., Paramata, R., Darmayanti, E., Maternitas, D. K., Studi, P., ... Gorontalo, U. N. (2020). *Hubungan Kecemasan Terhadap Produksi ASI Ibu Dengan Persalinan Seksio Sesaria*. 2(2).