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**DESCRIPTION OF ANXIETY LEVELS OF PREGNANT WOMEN BEFORE EMERGENCY CAESAREAN SECTION**

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**ABSTRACT**

Anxiety before an emergency cesarean section can negatively impact anesthesia, the surgical procedure, and mother infant bonding. The purpose of this study was to describe the anxiety levels of pregnant women before undergoing an emergency cesarean section. A quantitative descriptive analytic design was utilized. The population consisted of 70 pregnant women with gestational age ≥28 weeks scheduled for an emergency cesarean section. A total sampling technique was applied, involving 70 respondents (June-July 2025). The instrument used was the Hamilton Anxiety Rating Scale (HARS) questionnaire. The data analysis was presented in the form of frequency distribution since the data were categorical, describing the levels of anxiety among pregnant women undergoing emergency cesarean section. The results showed that the majority of respondents experienced moderate anxiety levels (62.8%). It can be concluded that pregnant women tend to experience moderate levels of anxiety before undergoing an emergency cesarean section.

Keywords: anxiety; pregnant women; emergency cesarean section

**INTRODUCTION**

Emergency cesarean section is a critical obstetric procedure performed within 30 minutes to reduce maternal and perinatal morbidity and mortality in urgent situations when the patient’s condition deteriorates, requiring physicians to act carefully within 30 minutes in order to minimize maternal and perinatal morbidity and mortality (ACOG, 2019). Unlike elective cesarean sections, which are carried out with thorough preparation, emergency procedures are characterized by sudden onset, high medical risk, and limited time (Juliathi et al., 2020; Supraptomo, 2024; WHO, 2021).

Anxiety commonly occurs among pregnant women facing emergency cesarean sections due to sudden onset, fear of surgical outcomes, concerns for maternal and fetal safety, and the stressful environment of the operating (Anita et al., 2024; Astuti et al., 2021; Natsir et al., 2024). Anxiety is defined as a state of tension, fear, discomfort, uneasiness, and worry caused by both internal (intrinsic) and external (extrinsic) stimuli (Faradiana & Mubarok, 2022). From a physiological perspective, anxiety in pregnant women activates the sympathetic nervous system, resulting in the release of stress hormones such as cortisol and catecholamines. Elevated stress hormones may impair placental blood flow, alter fetal heart rate, and increase the risk of labor complications (Fatmawati & Pawestri, 2021; Isnaini & Yunitasari., 2022).

Several factors influence anxiety levels prior to surgery, including: Age: Younger women tend to have higher anxiety due to limited experience and emotional maturity, while older women generally possess better coping mechanisms (Scattolin et al., 2022; Sondakh & Yuliani, 2017).

Education: Educational level affects anxiety; higher education may reduce anxiety due to better procedural understanding, but in emergencies it can also increase anxiety because of a deeper awareness of surgical risks (Lestari & Arafah, 2020; Yanti & Hidayati, 2021). Work: Occupation: Employment status influences access to health information and services. Housewives may have lower medical knowledge compared to those employed in the formal sector (Mamahit et al., 2024; Marzuki & Mustaqim, 2021). Previous operational history: Surgical history: Prior surgical experiences may serve as either protective or risk factors. Positive experiences may reduce anxiety, whereas negative experiences may heighten it (Damanik & Zuiatna, 2024). If unmanaged, anxiety can lead to various complications, including maternal sleep and appetite disturbances, increased risk of preterm birth, low birth weight, impaired mother infant bonding, heightened risk of postpartum depression, and potential long term effects on fetal neurological development (Janas-Kozik et al., 2021). From a nursing perspective, identifying anxiety levels in patients before emergency cesarean section is crucial for designing timely and appropriate interventions (Fatmawati & Pawestri, 2021; Stuart, 2019). Therefore, the purpose of this study was to describe the anxiety levels of pregnant women before undergoing emergency cesarean section (Gani,S.W., & Aslina,A, 2024). This study aimed to describe the levels of anxiety among pregnant women undergoing emergency cesarean section.

**METHOD**

This research is quantitative with a descriptive analysis approach. The sampling technique used was total sampling. The respondents were pregnant women scheduled for emergency cesarean section during June–July 2025, with the inclusion criterion of gestational age ≥28 weeks. A total of approximately 70 pregnant women met both the inclusion and exclusion criteria. The Indonesian version of the Hamilton Anxiety Rating Scale (HARS), validated by (Ramdan, 2019). The validity and reliability test results showed correlation coefficients (r table = 0.42–0.75, > r table = 0.30) and a Cronbach’s alpha value of 0.89, indicating high reliability. Ethical approval for this study was obtained from the Health Research Ethics Committee, with reference number 1111/SM/FKes/UNW/EC/VI/2025. Prior to participation, all respondents provided informed consent. Data were analyzed using univariate analysis to describe the frequency distribution of respondents' characteristics and anxiety levels.

**RESULT**

Table 1   
Distribution of respondents based on demographic characteristics of pregnant women prior to emergency cesarean section (n = 70)

|  |  |  |
| --- | --- | --- |
| Characteristics | f | % |
| Age (years) |  |  |
| 20-25 | 26 | 37.1 |
| 26-30 | 21 | 30.0 |
| 31-35 | 16 | 22.9 |
| 36-40 | 4 | 5.7 |
| 41-45 | 3 | 4.3 |
| Education |  |  |
| Elementary school | 2 | 2.9 |
| Junior high school | 9 | 12.9 |
| Senior high school | 46 | 65.7 |
| Diploma/Bachelor’s degree | 13 | 18.6 |
| Occupation |  |  |
| Housewife | 53 | 75.7 |
| Private sector | 8 | 11.4 |
| Civil servant | 6 | 8.6 |
| Others | 3 | 4.3 |
| Surgical history |  |  |
| Surgical history | 60 | 85.7 |
| No prior surgery | 9 | 12.9 |
| One previous surgery | 1 | 1.4 |

Table 1, it can be seen that the majority of pregnant women undergoing emergency cesarean section at RSUD dr. H. Jusuf S.K Tarakan were aged 20–25 years (26 respondents, 37.1%), had completed senior high school education (46 respondents, 65.7%), were housewives (53 respondents, 75.7%), and had no previous history of surgery (60 respondents, 85.7%).

Table 2

Distribution of respondents based on the anxiety level of pregnant women prior to emergency cesarean section (n = 70)

|  |  |  |
| --- | --- | --- |
| Anxiety level | f | % |
| Mild | 24 | 34.3 |
| Moderate | 44 | 62.8 |
| Severe | 2 | 2.9 |

Table 2, it can be seen that the majority of pregnant women undergoing emergency cesarean section at RSUD dr. H. Jusuf S.K Tarakan experienced moderate anxiety, accounting for 44 respondents (62.8%).

**DISCUSSION**

**Anxiety Levels of Pregnant Women Prior to Emergency Cesarean Section**

The results of this study indicate that all respondents (100%) experienced anxiety prior to undergoing an emergency cesarean section, with the majority reporting moderate anxiety (44 respondents, 62.8This finding is consistent with the study by Gani,S.W., & Aslina,A, (2024), which showed that all women scheduled for emergency cesarean section experienced anxiety, although the thresholds of severity varied. Similarly, Fatmawati & Pawestri (2021) reported a significant relationship between preoperative anxiety and maternal physiological responses, highlighting preoperative anxiety as a major concern for cesarean section patients. The predominance of moderate anxiety can be explained by the sudden and urgent nature of emergency cesarean section, which generates psychological distress and activates the sympathetic nervous system (ACOG, 2019; Stuart, 2019). Various demographic and clinical factors such as age, education, occupation, and surgical history influence anxiety levels (Lestari & Arafah, 2020; Marzuki & Mustaqim, 2021; Sondakh & Yuliani, 2017).

Younger maternal age is often associated with less mature coping mechanisms, contributing to heightened anxiety (Sondakh & Yuliani, 2017). On the other hand, higher education may either buffer or exacerbate anxiety: while it provides better understanding of medical procedures, it may also increase awareness of surgical risks, particularly in emergency settings (Lestari & Arafah, 2020). Occupation also plays a role, with housewives often having more limited access to health information compared to women employed in the formal sector (Marzuki & Mustaqim, 2021). Surgical history can act as either a protective or risk factor; positive past experiences may reduce anxiety, while negative or absent experiences may intensify it.

In this study, the majority of respondents were aged 20-25 years (37.1%), had senior high school education (65.7%), were housewives (75.7%), and had no history of surgery (85.7%). These characteristics collectively contribute to the predominance of moderate anxiety. This highlights the need for effective nursing interventions such as therapeutic communication, psychological support, and procedural education to reduce preoperati anxiety (Fatmawati & Pawestri, 2021; Marzuki & Mustaqim, 2021; Stuart, 2019). By contrast, respondents in the older age group (31-45 years) comprised only 32.9% of the sample and are generally characterized by better coping mechanisms and broader life experiences. This demographic distribution may help explain why moderate anxiety was more prevalent, as the younger age group dominated the sample and required more intensive psychological support (Marzuki & Mustaqim, 2021; Sondakh & Yuliani, 2017).

Educational background also influenced anxiety levels. The majority of respondents had senior high school education (65.7%), followed by diploma/bachelor’s (18.6%), junior high school (12.9%), and elementary school (2.9%). While secondary education provides basic understanding of medical procedures, in an emergency setting where time for explanation is limited, this knowledge may not be sufficient to significantly reduce anxiety (Mamahit et al., 2024; Marzuki & Mustaqim, 2021). Respondents with higher education may have greater access to reliable sources, yet in emergencies this knowledge can work both ways enhancing preparedness but also intensifying worry if not supported by clear communication from health providers (Lestari dan Arafah (2020).

Most respondents were housewives (75.7%), a factor strongly linked with anxiety levels. As noted by Marzuki & Mustaqim (2021), housewives often face limited access to medical information compared with those employed in the formal sector. Financial concerns and lack of prior exposure to medical procedures may further exacerbate anxiety. Conversely, women employed in the private sector (11.4%) or as civil servants (8.6%) may have broader access to health information through workplace programs or social networks, although their proportion in this study was relatively small and did not significantly alter the overall distribution of anxiety.

Another critical factor was surgical history. A majority (85.7%) of respondents had never undergone surgery, making this their first operative experience. The absence of prior surgical exposure likely heightened preoperative uncertainty and fear. Surgical history can either serve as a protective factor or a source of heightened anxiety depending on the individual’s previous experiences. Positive past encounters can ease anxiety, while negative or absent experiences often exacerbate it. If previous trauma can increase anxiety, then the 14.3% of respondents who had undergone the procedure before generally have a clearer perception of the process.

Anxiety symptoms identified using the Hamilton Anxiety Rating Scale (HARS) included physical manifestations such as palpitations, shortness of breath, and muscle tension, alongside psychological symptoms such as excessive worry and difficulty concentrating. These symptoms are indicative of heightened sympathetic nervous system activity, leading to increased release of stress hormones (Fatmawati & Pawestri, 2021). Physiologically, anxiety activates the hypothalamic pituitary adrenal (HPA) axis, resulting in elevated cortisol levels. High cortisol during pregnancy can impair placental blood flow, affect fetal cardiac function, and increase the risk of labor complications (Fatmawati & Pawestri, 2021).

Given that the majority of respondents (62.8%) experienced moderate anxiety, systematic and comprehensive nursing interventions are warranted. Moderate anxiety, while not debilitating, can hinder concentration and emotional stability but still allows patients to process information and engage in educational activities (Sari et al., 2021). Nurses, being the healthcare providers who interact most frequently with patients, are in the best position to identify and address anxiety. Therefore, therapeutic communication, psychological support, and structured procedural education are essential strategies to alleviate anxiety and improve recovery outcomes(Marzuki & Mustaqim, 2021; Shree & Madhusudhana, 2023; Stuart, 2019).

**CONCLUSION**

The findings of this study indicate that all pregnant women (100%) experienced anxiety before undergoing emergency cesarean section surgery, with the majority experiencing moderate anxiety (62.8%).

**REFERENCES**

ACOG. (2019). *Cesarean Delivery on Maternal Request*. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2019/01/cesarean-delivery-on-maternal-request

Anita, Rahim, A. R., & Rahmayati, E. (2024). Family Support, Positive Thinking and Postpartum Blues in Post-Cesarean Section Patients. *Jurnal Ilmu Keperawatan Indonesia (JIKPI)*, *5*(2), 333.

Astuti, P., Abidin, A. R., & Efendi, A. S. (2021). Decision-Making Analysis for Cesarean Section Procedures in Pregnant Women at Syafira Hospital Pekanbaru. *Media Kesmas (Public Health Media)*, *1*(2), 516–524. https://doi.org/10.25311/kesmas.vol1.iss2.74

Damanik, S., & Zuiatna, D. (2024). Relationship Between Cesarean Section History and Parity in Mothers with Placenta Previa in 2022–2023. *Jubida*, *2*(2), 37–46. https://doi.org/10.58794/jubida.v2i2.615

Faradiana, Z., & Mubarok, A. S. (2022). The Relationship Between Negative Thinking Patterns and Anxiety in Building Romantic Relationships in Early Adulthood. *Jurnal Psikologi Teori Dan Terapan*, *13*(1), 71–81. https://doi.org/10.26740/jptt.v13n1.p71-81

Fatmawati, L., & Pawestri, P. (2021). Reduction of Anxiety Levels in Pre-Cesarean Section Patients Through Murotal Therapy and Preoperative Education. *Holistic Nursing Care Approach*, *1*(1), 25. https://doi.org/10.26714/hnca.v1i1.8263

Gani, S. W., & Aslinar., A. (2024). Overview of Anxiety Levels in Pregnant Women Preparing for Cesarean Section at Pertamedika Ummi Rosnati Hospital Banda Aceh. *Jurnal Aceh Medika*, *8*(1), 202–209.

Isnaini, N., & Yunitasari., T. (2022). Factors Affecting Anxiety Level Before Examination Electrocardiogram (ECG) in Heart Clinic. *International Conference on Sustainable Innovation on Health Sciences and Nursing*, *1*, 239–247. https://doi.org/10.2991/978-94-6463-070-1

Janas-Kozik, M., Żmijowska, A., Zasada, I., Jelonek, I., Cichoń, L., Siwiec, A., & Wilczyński, K. M. (2021). Systematic Review of Literature on Eating Disorders During Pregnancy—Risk and Consequences for Mother and Child. *Frontiers in Psychiatry*, *12*(December), 1–7. https://doi.org/10.3389/fpsyt.2021.777529

Juliathi, Putu, N. L., Marhaeni, Ayu, G., Mahayati, D., & Made, N. (2020). An Overview of Cesarean Deliveries in the Emergency Department of Sanglah Central General Hospital Denpasar in 2020. *Jurnal Ilmiah Kebidanan (The Journal Of Midwifery)*, *9*(1), 19–27.

Lestari, A., & Arafah, E. H. (2020). Relationship Between Family Support and Anxiety Levels in Pre-Cesarean Section Patients at Lamaddukelleng Hospital. *Journal of Health, Nursing and Midwifery Sciences Adpertisi*, *1*(2), 2746–4636.

Mamahit, C. G., Inaoka, K., Wariki, W. M. V., & Ota, E. (2024). A Cross-sectional Study of Factors Affecting Quality of Life of People with Type 2 Diabetes. *Pacific Rim International Journal of Nursing Research*, *28*(1), 150–163. https://doi.org/10.60099/prijnr.2024.263621

Marzuki, M. S., & Mustaqim, M. H. (2021). An Overview of Anxiety Levels in Pregnant Women Preparing for Cesarean Section. *Jurnal Sains Riset*, *11*(2), 269. http://journal.unigha.ac.id/index.php/JSR

Natsir, N. A. Y., Afriani, A., Sonda, M., Ningsi, A., & Mukarramah., S. (2024). The Effectiveness of Prenatal Yoga on Anxiety Levels in Third Trimester Pregnant Women at TPMB Hj. A. Nani Nurcahyani, Makassar City. *Media Kesehatan Politeknik Kesehatan Makassar*, *19*(2), 171–175.

Sari, D. P., Hamranani, S. S. T., & Sukini. (2021). The Effect of Education on Obstetric Complications on Reducing Anxiety in Pre-Emergency Cesarean Section Patients at Dr. Soeradji Tirtonegoro Hospital. *MOTORIK Jurnal Ilmu Kesehatan*, *15*(1), 1–7. https://doi.org/10.61902/motorik.v15i1.36

Scattolin, M. A. de A., Resegue, R. M., & Rosário, M. C. do. (2022). The impact of the environment on neurodevelopmental disorders in early childhood. *Jornal de Pediatria*, *98*, S66–S72. https://doi.org/10.1016/j.jped.2021.11.002

Shree, V. C., & Madhusudhana, R. (2023). A comparative study of intravenous dexmedetomidine and clonidine as pre-emptive analgesia to intrathecal bupivacaine in subarachnoid block-A randomized double blind study. *Indian Journal of Clinical Anaesthesia*, *10*(2), 158–162.

Sondakh, J. J., & Yuliani, I. (2017). Anxiety Between Primigravida and Multigravida in Facing Labor. *Jurnal Pendidikan Kesehatan*, *6*(1).

Stuart,G.W. (2019). *Buku Saku Keperawatan Jiwa* (Edisi 6) Jakarta: EGC.

Supraptomo, R. (2024). Regional Anestesi Subarachnoidal Block pada Seksio Sesarea Emergensi dengan Preeklampsia Berat (PEB) Super Imposed HELLP Syndrome. *Jurnal Anestesi Obstetri Indonesia*, *7*(1), 21–28. https://doi.org/10.47507/obstetri.v7i1.156

WHO. (2021). *Caesarean section rates continue to rise, amid growing inequalities in access*. https://www.who.int/news/item/16-06-2021-caesarean-section-rates-continue-to-rise-amid-growing-inequalities-in-access

Yanti, G. S., & Hidayati, N. (2021). Students’ Writing Anxiety and Its Implication to Local Context. *Journal of Linguistics, Literature and Language Education*, *10*(2), 62–68. https://www.researchgate.net/publication/363671067.