



## PATIENT SATISFACTION WITH ANESTHESIA TECHNICIAN SERVICES CESAREAN SECTION PATIENTS UNDER ERACS

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### ABSTRACT

Patient satisfaction is a complex concept that relies heavily on the patient's personal judgment. When expectations are not met, patients tend to seek alternative care that is perceived as easier and faster. The study aims to describe the characteristics and level of satisfaction with Anesthesia Technician services among SC patients with ERACS at Muhammadiyah Palembang Hospital. This study employed a cross-sectional design with a convenience sampling technique involving 48 patients undergoing Enhanced Recovery After Cesarean Surgery (ERACS). Data were collected using questionnaires that had been validated through expert judgment and tested for reliability using Cronbach's alpha ( $\alpha > 0.7$ ). Data were analyzed descriptively to present respondent characteristics and bivariate using the Chi-square test to examine relationships between variables. The results of the study showed the characteristics of SC patients with ERACS at Muhammadiyah Palembang Hospital, based on age showed that the majority of patients were 26-35 years old with 27 respondents (56.2%), education showed that the majority of patients' education was high school with 22 respondents (45.8%), and characteristics based on work showed that the majority of patients' work was housewives 39 respondents (81.2%). Patient satisfaction levels showed that the majority of patients who underwent SC with ERACS had a high level of satisfaction, with 27 respondents (56.2%). This study shows that the majority of respondents are in the category of high satisfaction level, attributed to the quality of anesthesiologist services meeting patient expectations.

Keywords: anesthesia technician; caesarean section; ERACS; patient satisfaction

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## INTRODUCTION

Patient satisfaction levels are influenced by emotional, social, cultural, experiential, and expectation factors. When expectations are not met, patients tend to seek easier and faster treatment (Teshome et al., 2022). Factors that increase patient satisfaction include staff friendliness, health worker skills, and patient expectations (Andemeskel et al., 2019). Health services can be carried out by individuals and organizations to improve health and prevent disease. One of them is anesthesia services performed by anesthesiologists, including intraoperative and extraoperative procedures, perioperative care, acute and chronic pain management, resuscitation, as well as emergency and intensive care services (Menkes RI, 2020).

Regional anesthesia is the loss of pain sensation due to drug injections that work by inhibiting afferent conduction before reaching the central nervous system, so that pain perception is reduced (Rehatta et al., 2019). Spinal anesthesia is considered to provide satisfaction for patients because the procedure is relatively easy, recovery is fast, side effects are minimal, and it is safe for the respiratory system as long as the block is not too high (Butterworth, 2018). Spinal anesthesia is the main choice for the Sectio Caesarea (SC). SDKI data showed an increasing trend of SC operations in Indonesia from 1991 to 2007, from 1.3% to 6.8%, with higher rates in urban areas (11%) than in villages (3.9%). SC actions often cause side effects such as cramps, pain, nausea, and vomiting, which can cause significant suffering in postoperative patients (Balki & Carvalho, 2005). One

effective way to increase the clinical benefits of SC is through the implementation of Enhanced Recovery After Caesarean Surgery (ERACS) (Meng et al., 2021).

ERACS or fast track surgery is a multimodal perioperative protocol that aims to accelerate recovery, reduce morbidity, reduce the length of hospitalization, and minimize postoperative complications (Pratomo et al., 2020). This method is a development of the Enhanced Recovery After Surgery (ERAS) method, which was initially used in digestive surgery (Macones et al., 2019). The ERACS approach can be widely used and has been widely applied in healthcare centres in the UK, particularly in colorectal and orthopaedic surgery. Evidence shows the benefits of faster recovery than standard procedures, thus encouraging its application in many other countries (Pratomo et al., 2020).

According to Riskesdas 2018, the method of delivery of SC surgery in women aged 10–54 years in Indonesia reached 17.6%. The highest figure was found in DKI Jakarta at 31.1%, while Papua recorded the lowest figure at 6.7%. In Central Java, the SC figure was recorded at 17.1% (Kemenkes RI, 2019). The number of SC cases at Muhammadiyah Hospital Palembang in 2023 is 622 patients, while in January-June 2024, there will be 261 patients. (Gobel, 2022) shows that the level of patient satisfaction with anesthesia services at Kertha Usada Singaraja Hospital is dominated by the very satisfied category, namely 93 respondents (88.6%) in pre-anesthesia, 91 respondents (86.7%) in intraanesthesia, and 92 respondents (87.6%) in post-anesthesia. (Tawang, 2022) shows that the majority of postoperative patients at Scholoo Keyen Hospital are satisfied with the good category of 34 respondents (56.7%). Based on these data and the lack of previous studies at Muhammadiyah Palembang Hospital, this study was conducted to assess the level of patient satisfaction with anesthesia technician services among Sectio Caesarea (SC) patients managed under the Enhanced Recovery After Cesarean Surgery (ERACS) protocol. The study specifically aims to describe patient satisfaction with anesthesia technician services in SC patients undergoing ERACS.

## **METHOD**

This study is a quantitative study with a cross-sectional approach. The research was carried out at the Central Surgical Installation of Muhammadiyah Hospital, Palembang, from May 5 to June 9, 2025. The study population was all patients who underwent urological surgery with spinal anesthesia during the study period, totaling 48 patients. The research sample was determined through Accidental Sampling from a population that met the inclusion criteria, namely patients undergoing urological surgery with spinal anesthesia, cooperative, provided consent, and classified as ASA II physical status. Patients who refused to be respondents were excluded from the study.

The sole variable in this study was patient satisfaction with anesthesia technician services. Satisfaction was measured using a 15-item Likert-scale questionnaire encompassing five dimensions: responsiveness, assurance, tangibles, empathy, and reliability. Each item was scored on a three-point scale—1 (dissatisfied), 2 (satisfied), and 3 (very satisfied)—resulting in a total score range of 15 to 45. Total scores were categorized into three satisfaction levels: low (15–25), moderate (26–36), and high (37–45). The questionnaire had been previously validated and tested for reliability in earlier studies. Validity testing showed that the calculated  $r$ -values exceeded the critical value ( $r > 0.3$ ) for all items, indicating acceptable construct validity. Reliability analysis using Cronbach's alpha yielded a coefficient of 0.87, demonstrating excellent internal consistency and confirming the instrument's suitability for this study. Data was collected through questionnaires filled out by respondents and documentation of medical records. The research procedure includes preparation (consultation of supervisors, collection of literature, pre-survey permits, and code of ethics), implementation (identification of respondents, explanation of procedures, informed consent, and filling out questionnaires), as well as processing and preparation of reports. Data analysis is carried out using a computer program, starting from editing, coding, data entry, and cleaning. The satisfaction score was calculated based on questionnaire answers, then analyzed univariately to determine the frequency distribution and percentage of patient satisfaction. The results of the

analysis are presented in tables and graphs to make them easier to interpret. This research has received approval from the Research Ethics Committee with protocol number B.LPPM-UHB/370/04/2025.

## RESULT

Table 1.  
Frequency distribution of respondent characteristics (n=48)

characteristics	f	%
Age		
16-25	17	35.4
26-35	27	56.2
36-45	4	8.3
Education		4.2
SD	2	
SMP	14	29.2
SMA	22	45.8
PT	10	20.8
Work		
Housewives	39	81.2
Civil worker	4	8.3
Private worker	5	10.4

Table 1 shows that most patients were aged 26–35 years (56.2%). Most patients had a high school education (45.8%). The majority of patients were housewives (81.2%).

Table 2.  
Distribution of satisfaction levels of SC patient Anesthesia Technician services with ERACS

Satisfaction Rate	f	%
Moderate satisfaction	21	43.8
High satisfaction	27	56.2

Table 2 shows that the level of satisfaction of patients undergoing SC with the most ERACS was obtained at a high satisfaction level of 27 people (56.2%), and 21 people (43.8%) had moderate satisfaction.

## DISCUSSION

### Characteristics of Respondents Based on Age, Education, and Occupation

Based on Table 1, the age characteristics of most respondents were 26-35 years old, with 27 people (56.2%). Research by (Amir & Yulianti, 2020) shows that at the age of 20–35 years, maternal health conditions can cause a cesarean section to increase the risk of maternal and fetal morbidity and mortality. Patients in the age range of 26-35 years tend to have realistic expectations about medical procedures and childbirth experiences, making it easier to feel satisfied with the services provided (Febriyanti et al., 2024).

The highest level of education is high school, with 22 people (45.8%). This is in line with the research of (Nainggolan et al., 2022), who have the education level of the majority of respondents with a high school education, with 16 respondents (53.3%). A high level of education will broaden one's view, making it easier for respondents to receive information about anesthesia procedures that make patients comfortable and satisfied (Nainggolan et al., 2022).

More than 39% of are housewives, as many as 39 people (81.2%). Research by (Rochmiati et al., 2021) found that the characteristics of participants with the most jobs are housewives (33.5%). According to the author's analysis, housewives may hold higher expectations of health services, influencing their reported satisfaction levels.

One of the determining factors for the level of patient satisfaction is the characteristics of the patient, which are the characteristics of a person or the peculiarities of a person that distinguish one

person from another. These characteristics are in the form of name, age, gender, educational background, ethnicity, religion, occupation, and others (Feriana, 2021). Personality reflects the psychological characteristics that are inherent in a person and affect their interactions and attitudes towards the surrounding environment (Fatwikiningsih, 2020).

### **Overview of Anesthesia Technician Service Satisfaction Level in SC Patients with ERACS**

Table 2 obtained the highest level of patient satisfaction in the high satisfaction category with 27 respondents (56.2%). Research (Jalilah, 2023) shows that the majority of patients are satisfied with preoperative (54.3%), intraoperative (54.3%), and postoperative (51.4%) services. In line with (Gobel, 2022) research, the majority of patients are very satisfied with anesthesia services, both pre (88.6%), intra (86.7%), and post-anesthesia (87.6%) at Kertha Usada Singaraja Hospital. According to (Tawang, 2022). The level of postoperative patient satisfaction in the surgical and obstetric inpatient rooms of Scholoo Keyen Hospital was dominated by the good category, with as many as 34 respondents (56.7%).

This study shows that the majority of respondents are in the category of high satisfaction level, which is due to the quality of service provided by anesthesia technicians, as expected. The anesthesia technician's service is considered good in five aspects, namely responsiveness, as anesthesia technicians are always quick to help and meet the patient's needs. In terms of responsiveness, anesthesia technicians are considered alert, responsive, and caring for patient needs. In the aspect of assurance, anesthesia stylists are considered friendly, communicative, and caring. In the aspect of reality, anesthesia technicians are considered neat, clean, skilled, and informative. In the aspect of empathy, anesthesia technicians are considered caring, responsive, and fair to patients. In terms of reliability, anesthesia stylists are considered firm, informative, and professional in providing services (Sari, 2023).

Patient satisfaction is an important indicator of the quality of hospital services because it can increase trust, loyalty, and have a positive impact on the reputation and performance of hospitals. Patient satisfaction has the potential to influence hospital service priorities over non-clinical aspects, such as comfort and hospitality. Therefore, patient satisfaction management must continue to place clinical integrity, safety, and professionalism of medical personnel as the main foundation of health services (Nurfitriani et al., 2024).

### **CONCLUSION**

Based on the results of the study, the majority of SC patients with ERACS at Muhammadiyah Palembang Hospital, most respondents were aged 26–35 years, had a high school education, and were housewives. Overall, more than half reported a high level of satisfaction with anesthesia services.

### **REFERENCES**

- Amir, F., & Yulianti, S. (2020). Hubungan Paritas dan Usia Terhadap Persalinan Sectio Caesarea di RSUD Bahagia Makassar Tahun 2020. *Jurnal Kesehatan Delima Pelamonia*, 4(2), 75–84. <https://doi.org/https://doi.org/10.37337/jkdp.v4i2.179>
- Andemeskel, Y. M., Elsholz, T., Gebreyohannes, G., & Tesfamariam, E. H. (2019). Patient satisfaction with peri-operative anesthesia care and associated factors at two National Referral Hospitals. *BMC Health Services Research*, 9(1), 669–669. <https://doi.org/https://doi.org/10.1186/s12913-019-4499-x>
- Balki, M., & Carvalho, J. C. (2005). Intraoperative nausea and vomiting during cesarean section under regional anesthesia. *International Journal of Obstetric Anesthesia*, 14(3), 230–241. <https://doi.org/doi:10.1016/j.ijoa.2005.09.011>
- Butterworth, F. (2018). *Morgan & Mikhail's clinical anesthesiology*. McGraw-Hill Education.
- Fatwikiningsih, N. (2020). *Teori psikologi kepribadian manusia*. Penerbit Andi. [https://books.google.co.id/books?hl=id&lr=&id=UCn-DwAAQBAJ&oi=fnd&pg=PP1&dq=Fatwikiningsih,+N.+\(2020\).+Teori+psikologi+kepribadian](https://books.google.co.id/books?hl=id&lr=&id=UCn-DwAAQBAJ&oi=fnd&pg=PP1&dq=Fatwikiningsih,+N.+(2020).+Teori+psikologi+kepribadian)

- an+manusia.&ots=Xv2fmH9kYE&sig=GVI7W1qiprdVHlcomCsubSwOgE&redir\_esc=y#v=onepage&q=Fatwikiningsih%2C N. (2020). Teori psikologi kepribadian manusia.&f=false
- Febriyanti, V., Sukmaningtyas, W., & Adriyani, F. (2024). Implementasi Pemberian Hand Massage Terhadap Penurunan Tingkat Kecemasan Pre Operasi Pada Pasien Sectio Caesarea Dengan Anestesi Spinal di RSUD Muhammadiyah Siti Aminah Bumiayu. *Borneo Community Health Service Journal*, 4(2), 148–156.
- Feriana, N. (2021). Faktor-faktor mutu pelayanan yang mempengaruhi tingkat kepuasan pasien rawat inap kebidanan di Bangsal Halimah RSIY PDHI tahun 2021 [Poltekkes Kemenkes Yogyakarta]. <https://eprints.poltekkesjogja.ac.id/6640/>
- Gobel, N. (2022). Gambaran Tingkat Kepuasan Pasien Terhadap Pelayanan Kefarmasian di Rumah Sakit. In *Indonesian Journal of Pharmaceutical Education* (Vol. 2, Issue 2). <https://doi.org/10.37311/ijpe.v2i2.13989>
- Jalilah, T. I. (2023). Survey Kepuasan Pasien Persalinan Seksio Sesarea Dengan Metode Enhanced Recovery After Cesarean Surgery (ERACS) Di RSUD Sriwijaya Palembang. [https://repository.unsri.ac.id/162522/3/RAMA\\_11201\\_04011382126230\\_0011108705\\_0016058404\\_01\\_front\\_ref.pdf](https://repository.unsri.ac.id/162522/3/RAMA_11201_04011382126230_0011108705_0016058404_01_front_ref.pdf)
- Kemenkes RI. (2019). Laporan Nasional Riskesdas 2018. Lembaga Penerbit Balitbangkes.
- Macones, G. A., Caughey, A. B., Wood, S. L., Wrench, I. J., Huang, J., Norman, M., Pettersson, K., Fawcett, W. J., Shalabi, M. M., Metcalfe, A., Gramlich, L., Nelson, G., & Wilson, R. D. (2019). Guidelines for postoperative care in cesarean delivery: Enhanced Recovery After Surgery (ERAS) Society recommendations (part 3). *Am J Obstet Gynecol*, 221(3), e1-247.e9. <https://doi.org/doi:10.1016/j.ajog.2019.04.012>
- Meng, X., Chen, K., Yang, C., Li, H., Wang, X., & 1. (2021). The Clinical Efficacy and Safety of Enhanced Recovery After Surgery for Cesarean Section: A Systematic Review and Meta-Analysis of Randomized Controlled Trials and Observational Studies. *Frontiers in Medicine*, 8(8), 694385. <https://doi.org/https://doi.org/10.3389/fmed.2021.694385>
- Menkes RI. (2020). Peraturan Menteri Kesehatan Republik Indonesia Nomor HK.01.07/MENKES/722/2020 Tentang Standar Profesi Penata Anestesi.
- Nainggolan, D., Novitasari, D., & Adriani, P. (2022). Pengaruh Edukasi Menggunakan Video tentang Prosedur Pembiusan terhadap Kecemasan pada Pasien Pre Operatif Spinal Anestesi. In *Seminar Nasional Penelitian dan Pengabdian Kepada Masyarakat*. 481–488. <https://doi.org/https://doi.org/10.35960/snppkm.v2i1.1042>
- Nurfitriani, S., Paradilla, M., Niartiningsih, A., & Takwa, M. (2024). Patient experience: Teori dan praktek. Uwais Inspirasi Indonesia. [https://books.google.co.id/books?hl=id&lr=&id=OFM5EQAAQBAJ&oi=fnd&pg=PA1&dq=Nurfitriani,+S.,+Paradilla,+M.,+Niartiningsih,+A.,+%26+Takwa,+M.+%282024%29.+Patient+experience:+Teori+dan+praktek.+Uwais+Inspirasi+Indonesia.&ots=cTEXWEmr7P&sig=dThsgFEpguiqfJhTpiSLIE3wDLy&redir\\_esc=y#v=onepage&q=Nurfitriani%2C S.%2C Paradilla%2C M.%2C Niartiningsih%2C A.%2C %26 Takwa%2C M. \(2024\). Patient experience%3A Teori dan praktek. Uwais Inspirasi Indonesia.&f=false](https://books.google.co.id/books?hl=id&lr=&id=OFM5EQAAQBAJ&oi=fnd&pg=PA1&dq=Nurfitriani,+S.,+Paradilla,+M.,+Niartiningsih,+A.,+%26+Takwa,+M.+%282024%29.+Patient+experience:+Teori+dan+praktek.+Uwais+Inspirasi+Indonesia.&ots=cTEXWEmr7P&sig=dThsgFEpguiqfJhTpiSLIE3wDLy&redir_esc=y#v=onepage&q=Nurfitriani%2C S.%2C Paradilla%2C M.%2C Niartiningsih%2C A.%2C %26 Takwa%2C M. (2024). Patient experience%3A Teori dan praktek. Uwais Inspirasi Indonesia.&f=false)
- Pratomo, B. Y., Sudadi, S., & Gentong, M. G. G. (2020). ERAS Pada Lower Abdominal Surgery. *Jurnal Komplikasi Anestesi*, 7(2), 65–71. <https://doi.org/https://doi.org/10.22146/jka.v7i2.7460>
- Rehatta, N. M., Hanindito, E., & Tantri, A. R. (2019). *Anestesiologi Dan Terapi Intensif: Buku Teks PERDATIN (1st ed.)*. Gramedia Pustaka Utama. <https://books.google.co.id/books?id=d7q0DwAAQBAJ>
- Rochmiati, R., Suryawati, C., & Shaluhiah, Z. (2021). Faktor-faktor yang mempengaruhi keputusan pilihan pasien Rawat Inap di Rumah Sakit Syariah. *Jurnal Kesehatan Masyarakat Cendekia Utama*, 8(2), 152–164. <https://doi.org/https://doi.org/10.31596/jkm.v8i2.680>
- Sari, I. Y. (2023). Hubungan kualitas pelayanan kesehatan dengan tingkat kepuasan pasien post operasi di RS Yukum Medical Centre Lampung Tengah tahun 2023 [Poltekkes Kemenkes Tanjungkarang]. <https://repository.poltekkes-tjk.ac.id/id/eprint/4938/>
- Tawang, S. (2022). Hubungan Komunikasi Terapeutik Penata Anestesi Dengan Tingkat Kepuasan Pasien Pasca Operasi Dengan Anestesi Spinal Di RSUD Scholoo Keyen Kabupaten

Sorong Selatan [ITEKES Bali]. [https://repository.itekes-bali.ac.id/medias/journal/SUANDI\\_TAWANG.pdf](https://repository.itekes-bali.ac.id/medias/journal/SUANDI_TAWANG.pdf)

Teshome, D., Mulat, Y., Fenta, E., Hunie, M., Kibret, S., Tamire, T., & Fentie, Y. (2022). Patient satisfaction and its associated factors towards perioperative anesthesia service among surgical patients: A cross-sectional study. *Heliyon*, 8(3), e09063. <https://doi.org/https://doi.org/10.1016/j.heliyon.2022.e09063>.