

ASSESSMENT OF MATERNAL SATISFACTION WITH EPIDURAL ANALGESIA DURING LABOR PAIN

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Abstract

Background: Labour pain is widely recognized as one of the most intense forms of pain experienced by women. This study aims to examine the satisfaction with epidural analgesia in managing labour pain.

Methodology: This cross-sectional quantitative study was conducted at Sheikh Zayed Hospital, Lahore, to assess maternal satisfaction with epidural analgesia during labour. A total of 80 pregnant women in active labour who opted for epidural analgesia were selected based on specific inclusion and exclusion criteria. Data were collected from July to August 2024 using a demographic form and the validated Patient Satisfaction with Perioperative Anesthetic Care Questionnaire (PSPACQ). Participants completed self-administered questionnaires assessing satisfaction, pain levels, and any complications. Written informed consent was obtained, and confidentiality was ensured. Data were analyzed using SPSS version 25 through descriptive statistics and visualized using bar charts and histograms.

Results: The majority of participants were aged 18–30 years (51.2%), housewives (65%), married for 1–5 years (50%), and had primary education (50%). Most were primigravida (57.5%). Regarding satisfaction with epidural analgesia, 83.7% of participants reported excellent satisfaction, 8.75% reported good satisfaction, and 6.25% reported average satisfaction. No participants reported poor satisfaction, indicating a high overall level of satisfaction with epidural pain management during labour.

Conclusion: The study concludes that epidural analgesia is highly effective and well accepted for labour pain management, with the majority of women reporting excellent satisfaction. The findings suggest broad acceptance across diverse socio-demographic groups, particularly among young, primigravida women in their early years of marriage.

INTRODUCTION

Labour pain is widely recognized as one of the most intense forms of pain experienced by women. This study aims to examine the satisfaction with epidural analgesia in managing labour pain (Fernandes et al., 2021).

Labour pain results primarily from uterine contractions, cervical dilation, and pressure on pelvic structures, transmitted via visceral sympathetic nerves (Merrer et al., 2021). Various pain relief methods have been debated over the years, including parenteral opioids, non-pharmacological techniques, paracervical blocks, and combined spinal-epidural analgesia (Halliday et al., 2022).

The use of lumbar epidural analgesia has increased significantly, with approximately 60% of women in the USA and up to 80% in the UK receiving it during labour. While neuraxial techniques, such as epidurals, are considered effective, they require skilled administration and are often costly (Šakić et al., 2022). Combined spinal-epidural analgesia offers benefits such as rapid onset and better sacral spread but has also been associated with motor block, limited ambulation, and the need for repeat dosing (Cherel et al., 2022).

Epidural analgesia remains the gold standard for labour pain relief, though some studies report an increased risk of instrumental deliveries among its users (Zhang et al., 2021). Nonetheless, it may also be associated with improved vaginal delivery rates when administered by well-trained personnel (Such & Denny, 2021).

The global use of epidural analgesia varies between 10% to 83%, influenced by regional practices and healthcare systems (Pietrzak et al., 2022). In Malaysia, epidurals are frequently used, though concerns persist regarding neonatal outcomes, such as a slightly higher need for neonatal naloxone in the

parental analgesia group, with no significant differences in 5-minute APGAR scores or fetal heart rate abnormalities (Rodrigues et al., 2024).

Methodology

The study employed a cross-sectional quantitative research design, allowing data to be collected at a specific point in time to assess maternal satisfaction with epidural analgesia in managing labour pain. It was conducted at Sheikh Zayed Hospital, Lahore, and involved a sample of 80 pregnant women admitted to the maternity ward who were in active labour and opted for epidural analgesia. Participants were selected based on predefined inclusion and exclusion criteria, ensuring the relevance and safety of the sample. Data were gathered using a demographic information form and the Patient Satisfaction with Perioperative Anesthetic Care Questionnaire (PSPACQ), a validated tool consisting of 25 items rated on a 3-point Likert scale, categorizing satisfaction levels from poor to excellent. The data collection took place from July to August 2024. Eligible patients were approached in person or via email, briefed about the study, and asked to provide written informed consent. Self-administered questionnaires were used to assess participants' satisfaction, pain levels before and after the procedure, and any complications or additional interventions experienced during labour. Anonymity and confidentiality were maintained throughout, and participants were offered a token of appreciation upon completion. The data were analyzed using SPSS version 25, applying descriptive statistics such as frequencies, percentages, means, and standard deviations, along with graphical representations including bar charts and histograms to present the findings.

Results

Table 1: Socio-demographic characteristics

Variable	Category	Frequency	Percentage
Age	18-30 Year	41	51.2
	31-40 Year	33	41.2
	41-50 Year	6	7.5
Occupation	House Wife	52	65
	Employee	28	35
Year of Marriage	1-5 Year	40	50

	6-10 Year	28	35
	> 10 Year	12	15
Education Level	Primary	40	50
	Secondary	30	37.5
	Tertiary/ Diploma/Degree	10	12.5
Gravida	Primigravida	46	57.5
	Multigravida	34	42.5

Table 1 presents the socio-demographic characteristics of the participants. The majority of the women (51.2%) were between 18–30 years of age, followed by 41.2% aged 31–40 years, and only 7.5% were aged 41–50 years. Most participants were housewives (65%), while 35% were employed. Regarding the duration of marriage, half of the

participants (50%) had been married for 1–5 years, 35% for 6–10 years, and 15% for more than 10 years. In terms of education, 50% had primary education, 37.5% had secondary education, and only 12.5% had a diploma or degree. More than half (57.5%) were primigravida, while 42.5% were multigravida.

4.2 Patient satisfaction with epidural analgesia

Satisfaction Level	Frequency	Percentage
Poor Satisfaction	00	00
Average Satisfaction	5	6.25
Good Satisfaction	7	8.75
Excellent Satisfaction	67	83.7

Table 4.2 presents the overall satisfaction with epidural analgesia. The majority of participants (83.7%) reported excellent satisfaction, while 8.75% reported good satisfaction, and 6.25% showed average satisfaction with epidural anesthesia. There were no participants who reported average or poor satisfaction with the epidural analgesia.

Discussion

The findings of this study regarding the overall satisfaction with epidural analgesia are highly favorable. A significant majority reported excellent satisfaction, while the remaining indicated good satisfaction. Notably, there were no reports of average or poor satisfaction, suggesting a strong positive response to the use of epidural analgesia in labor pain management.

This outcome aligns with previous studies that have consistently demonstrated the high effectiveness and patient satisfaction associated with epidural analgesia. For example, Dhulkhed & Saju (2024) found that epidural analgesia is often regarded as one of the most effective methods for managing labor pain, leading to high levels of satisfaction among patients (Dhulkhed & Saju, 2024). Similarly, Al Misnid et al. (2023) reported that epidural

analgesia significantly improved maternal comfort and provided relief during labor, with the majority of patients expressing high satisfaction levels (Al Misnid et al., 2025).

The high satisfaction rate in this study may be attributed to the effective pain relief provided by epidural analgesia, which is known to offer profound analgesia without causing complete loss of sensation (Kishimoto et al., 2025). This allows the mother to participate actively in the birth process, while still being able to manage labor pain effectively. Furthermore, the absence of any reports of dissatisfaction suggests that the clinical administration and management of epidural analgesia in this study were conducted effectively, contributing to the positive experiences of the participants (Kassa et al., 2025).

It is important to note that while the results are highly positive, some studies do indicate that epidural analgesia can have side effects, such as a longer second stage of labor or maternal hypotension (Svraka et al., 2024). However, such side effects were not mentioned in this study, which may indicate effective management or the specific cohort studied. In clinical practice, careful monitoring and individualized care can mitigate the risks of side

effects, leading to the high levels of satisfaction observed.

Overall, the findings of this study reinforce the general consensus in the literature regarding the efficacy of epidural analgesia in managing labor pain, with most women reporting positive outcomes. These results suggest that epidural analgesia continues to be a preferred method for pain relief during labor, contributing significantly to maternal satisfaction.

Conclusion

The findings of the study indicate that the majority of participants were young, housewives, with primary education, and in the early years of marriage. Most were primigravida, suggesting that many were experiencing childbirth for the first time. Importantly, a significant majority (83.7%) reported excellent satisfaction with epidural analgesia for labour pain management, while a smaller proportion (8.75%) reported good satisfaction and only 6.25% had average satisfaction. No participant reported poor satisfaction. These results suggest that epidural analgesia is highly effective in meeting the pain relief expectations of labouring women and is generally well accepted across different socio-demographic groups.

References

- Al Misnid, O., Al-Shaker, S., Alqalayta, J., Alhmaizi, S., Alghamdi, A., Alsultan, A., & Tawfeeq, N. A. (2025). Maternal satisfaction and determinants of epidural anesthesia experience in Saudi Arabian obstetric settings: a cross-sectional study. *International Journal of Medicine in Developing Countries*, 8(12), 3442-3442.
- Cherel, Q., Burey, J., Rousset, J., Picard, A., Mirza, D., Dias, C., Jacquet, H., Mariani, P., Raffegau, N., & Saupin, I. (2022). Epidural analgesia information sessions provided by anesthetic nurses: impact on satisfaction and anxiety of parturient women a prospective sequential study. *BMC anesthesiology*, 22(1), 105.
- Dhulkhed, V., & Saju, S. V. (2024). Assess Epidural Administration for Postpartum Maternal Satisfaction. In *Advancements in Science and Technology for Healthcare, Agriculture, and Environmental Sustainability* (pp. 632-638). CRC Press.
- Fernandes, S., Galacho, J., Borrego, A., Pereira, D., Lança, F., & Ormonde, L. (2021). Impact of labor epidural analgesia on maternal satisfaction and childbirth expectations in a tertiary care center in Portugal: a prospective study. *Acta Médica Portuguesa*, 34(4), 272-277.
- Halliday, L., Nelson, S. M., & Kearns, R. J. (2022). Epidural analgesia in labor: a narrative review. *International Journal of Gynecology & Obstetrics*, 159(2), 356-364.
- Kassa, A. A., Sahle, W. A., Desalew, T., Lakew, Z., & Behabtu, T. (2025). Assessment of awareness and attitudes of pregnant women toward labor epidural analgesia and factors influencing the decision to opt for it: A cross-sectional study. *medRxiv*, 2025.2001.2001.25319869.
- Kishimoto, Y., Ueda, K., Igarashi, T., Tanaka, Y., & Kawaguchi, M. (2025). The effectiveness of decision-making support methods during pregnancy regarding epidural analgesia in labor: A scoping review. *European Journal of Midwifery*, 9, 10.18332/ejm/204274.
- Merrer, J., Bonnet, M.-P., Blondel, B., Tafflet, M., Khoshnood, B., Le Ray, C., & Chantry, A. A. (2021). Predictors of incomplete maternal satisfaction with neuraxial labor analgesia: A nationwide study. *Anaesthesia Critical Care & Pain Medicine*, 40(5), 100939.
- Pietrzak, J., Mędrzycka-Dąbrowska, W., Tomaszek, L., & Grzybowska, M. E. (2022). A cross-sectional survey of labor pain control and women's satisfaction. *International journal of environmental research and public health*, 19(3), 1741.
- Rodrigues, R., Freitas, C., Gonçalves, B., Freitas, J., Abreu, J., & Freitas, A. C. (2024). Childbirth Experience and Pain Control: Expectation, Satisfaction, and Analgesia Myths. *Cureus*, 16(6).

- Šakić, L., Vidaković, Z., Radoš, I., & Včev, A. (2022). Satisfaction of parturients with epidural analgesia during delivery: analysis of questionnaire at a single hospital center. *Acta Clinica Croatica*, 61(Suppl 2), 9.
- Such, T. L., & Denny, D. L. (2021). Comfort and satisfaction among women who used different options for analgesia during labor and birth. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 50(6), 691-702.
- Svraka, A. D., Svraka, D., Pejic, D., Mrdja, V., & Švraka, D. (2024). Establishment of Labor Epidural Analgesia Service and its Assessment: An Experience in a Hospital of a Middle-Income Country. *Cureus*, 16(3).
- Zhang, P., Yu, Z., Zhai, M., Cui, J., & Wang, J. (2021). Effect and safety of remifentanyl patient-controlled analgesia compared with epidural analgesia in labor: an updated meta-analysis of randomized controlled trials. *Gynecologic and Obstetric Investigation*, 86(3), 231-238

