



Original Research Article

ASSESSMENT OF PATIENT KNOWLEDGE AND PERCEPTIONS OF ANESTHESIA IN A TERTIARY CARE PRE-ANESTHESIA CLINIC

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Received : 10/02/2026
Received in revised form : 05/04/2026
Accepted : 20/04/2026

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DOI: 10.70034/ijmedph.2026.2.325

Source of Support: Nil,
Conflict of Interest: None declared

Int J Med Pub Health
2026; 16 (2); 1942-1946

ABSTRACT

Background: Appropriate patient knowledge and a favorable attitude toward anesthesia play a vital role in achieving informed consent and optimal perioperative cooperation. Despite this, awareness of anesthesia continues to be inadequate in developing healthcare settings, especially among patients presenting to pre-anesthesia clinics. The objective is to assess the knowledge and attitudes toward anesthesia among patients attending a pre-anesthesia clinic in a tertiary care center.

Materials and Methods: This cross-sectional survey was conducted among 680 patients attending a pre-anesthesia clinic at a tertiary care hospital. Data were collected using a structured questionnaire assessing demographic characteristics, educational status, awareness of anesthesia, and prior exposure to anesthesia. Descriptive statistics were used for data analysis.

Results: Results: Among the 680 participants, 60% were male and 40% were female. A majority of patients (70%) were uneducated, while 30% had some level of formal education. Overall, 30% of patients reported having knowledge about anesthesia, whereas 70% were unaware. Among those who were aware, approximately 15% had prior exposure to anesthesia. Awareness and understanding of anesthesia were observed to be lower among uneducated patients compared to those with formal education.

Conclusion: The study demonstrates a low level of knowledge regarding anesthesia among patients attending a pre-anesthesia clinic, particularly among uneducated individuals. These findings emphasize the need for structured patient education and counselling during pre-anesthetic evaluation to enhance awareness, reduce anxiety, and support informed decision-making.

Keywords: Anesthesia, Attitude, Knowledge, Preanesthesia evaluation, Awareness.

INTRODUCTION

Anesthesia constitutes a cornerstone of modern medical and surgical care, allowing a wide spectrum of operative and diagnostic procedures to be performed safely and humanely.^[1-3] Over the past few decades, significant progress in anesthetic agents, airway management strategies, monitoring technologies, and perioperative care practices has markedly enhanced patient safety and surgical

outcomes. Improvements in pharmacology, adherence to monitoring standards, and better training have led to a substantial reduction in anesthesia-related morbidity and mortality. Despite these advancements, patient awareness regarding anesthesia as a specialty, its processes, potential risks, and the role of anesthesiologists remains limited, particularly in developing countries.^[4,5] Insufficient knowledge about anesthesia frequently leads to misconceptions, including fears of

intraoperative awareness, not regaining consciousness after surgery, postoperative pain, and possible complications.^[6-8] Such concerns can elevate preoperative anxiety and adversely affect patient cooperation during perioperative management. Furthermore, valid informed consent depends on a patient's basic understanding of the procedures involved, including anesthesia. When awareness is lacking, the ability to make informed decisions may be impaired.^[9,10]

The pre-anesthesia clinic (PAC) serves an essential function in perioperative evaluation and risk assessment. It offers an important platform not only for clinical optimization but also for educating patients and alleviating anxiety. However, individuals attending tertiary care centers often represent varied educational and socioeconomic backgrounds, which can influence their level of awareness and perception. Therefore, assessing patient knowledge and attitudes toward anesthesia is crucial for identifying deficiencies and developing appropriate educational strategies. In view of this, the present study was conducted to evaluate the knowledge and attitudes toward anesthesia among patients attending a pre-anesthesia clinic in a tertiary care center from January 2020 to December 2020.

MATERIALS AND METHODS

This hospital-based cross-sectional survey was carried out in the pre-anesthesia clinic of a tertiary care teaching hospital from January 2020 to December 2020. The study population comprised adult patients aged 18 years and above who attended the clinic for preoperative assessment prior to elective surgical procedures. A total of 680 patients who met the inclusion criteria and provided informed consent were included in the study. Patients who declined participation, as well as those with communication difficulties or cognitive impairment, were excluded. Data were collected using a structured questionnaire (Table 1) designed to obtain demographic details such as gender and educational status, assess awareness of anesthesia, record prior exposure to anesthesia, and evaluate general attitudes toward anesthetic procedures. The questionnaire was administered in a language comprehensible to the patient, with assistance provided when necessary. The collected data were compiled and analyzed using appropriate statistical methods.

Table 1: Questioner for assessment of demographics, educational status, attitude and awareness about anesthesia

Question and Options
1. Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female
2. Educational Status: <input type="checkbox"/> No formal education <input type="checkbox"/> Primary education <input type="checkbox"/> Secondary education <input type="checkbox"/> Higher secondary <input type="checkbox"/> Graduate and above
3. Have you heard about anesthesia before? <input type="checkbox"/> Yes <input type="checkbox"/> No
4. Do you know who administers anesthesia? <input type="checkbox"/> Surgeon <input type="checkbox"/> Anesthesiologist <input type="checkbox"/> Nurse <input type="checkbox"/> Do not know
5. What do you think anesthesia does? <input type="checkbox"/> Makes the patient unconscious <input type="checkbox"/> Relieves pain <input type="checkbox"/> Both <input type="checkbox"/> Do not know
6. Are you aware that there are different types of anesthesia (general, spinal, local)? <input type="checkbox"/> Yes <input type="checkbox"/> No
7. Have you ever received anesthesia before? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, type: <input type="checkbox"/> General <input type="checkbox"/> Spinal <input type="checkbox"/> Local <input type="checkbox"/> Do not know
8. Are you afraid of receiving anesthesia? <input type="checkbox"/> Yes <input type="checkbox"/> No

<input type="checkbox"/> Not sure
9. Do you believe anesthesia is safe when administered by a qualified doctor?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> Not sure
10. Would you like more information about anesthesia before your surgery?
<input type="checkbox"/> Yes
<input type="checkbox"/> No

RESULTS

A total of 680 patients participated in the study and are represented in Graph 1. Of these, 408 patients (60%) were male and 272 patients (40%) were female, indicating a male predominance among patients attending the pre-anesthesia clinic during the study period. With respect to educational status, 476 patients (70%) were uneducated, while 204 patients (30%) had received some level of formal education. This indicates that a substantial proportion of the study population lacked formal education, which may influence their understanding of medical procedures. Among the people who were educated 56% received primary education, 24% received secondary, 14% higher secondary, 6% graduate and above. Assessment of awareness revealed that 204 patients (30%) reported having knowledge about anesthesia, whereas 476 patients (70%) were unaware of anesthetic procedures. These findings suggest that a majority of patients presenting for surgery lacked basic awareness regarding anesthesia. The 66% of participant revealed that anesthesia is administered by the surgeon, 22% by anesthesiologist as a separate specialist, 5% by the nurse, 7% participant responded that they are not aware of it. About 88% of the participants said the anesthesia is to relieve pain and rest 12% of the people said it is to make both unconscious and pain free.

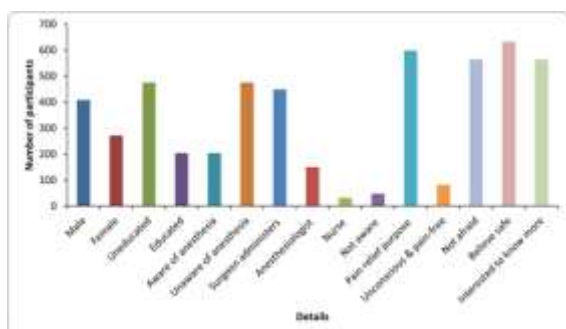


Figure 1: Distribution of participants depending upon the feedback received by participants.

Among the 204 patients who were aware of anesthesia, only 31 patients (approximately 15% of the aware group) reported previous exposure to anesthesia. The remaining 173 patients had knowledge of anesthesia through indirect sources such as social exposure or information from others. Awareness was observed to be comparatively higher among educated individuals and among those with prior anesthetic experience. 19% of the participants

informed that they are aware of the type of anesthesia. Out of these 19% participants 83% were about general anesthesia, 11% about local anesthesia, 2% local anesthesia and 4% they could not recollect. 83% participants expressed that they are not afraid of getting anesthetized. 93% participants agreed that the anesthesia will be safe if it is administered by a qualified doctor. 83% of the participants were interested to know more about anesthesia before the surgery.

DISCUSSION

The present study demonstrates that awareness and understanding of anesthesia among patients attending a pre-anesthesia clinic remain inadequate, with only 30% of participants reporting any knowledge of anesthesia. This finding is consistent with recent global evidence indicating that patient awareness of anesthesiology continues to be limited despite advancements in perioperative care. A large national survey conducted in China involving over one million participants also reported low levels of public knowledge regarding anesthesia and the role of anesthesiologists, emphasizing that awareness gaps persist even in large healthcare systems.^[11] Similarly, a recent study from Saudi Arabia (2026) highlighted that inadequate patient awareness and misconceptions about anesthesia remain common, particularly in developing healthcare settings.^[12]

The demographic findings of the present study revealed a male predominance (60%), which aligns with trends observed in other recent hospital-based studies where male patients more frequently access surgical care, often due to sociocultural and economic factors influencing healthcare utilization. More importantly, the high proportion of uneducated patients (70%) in this study appears to play a significant role in the observed low awareness levels. Educational status has consistently been identified as a key determinant of health literacy. Recent literature confirms that patients with higher educational attainment demonstrate significantly better understanding of anesthesia, its risks, and perioperative processes.^[13,14] In our study, awareness was notably higher among educated individuals, reinforcing this association.

A striking finding in the present study is that 66% of participants believed anesthesia is administered by the surgeon, while only 22% correctly identified the anesthesiologist as a separate specialist. This misconception has been widely reported in contemporary research. A 2023 study evaluating

patient awareness in Turkey similarly found that a large proportion of patients were unaware of the anesthesiologist's role and responsibilities.^[13] Likewise, the large-scale Chinese survey reported that recognition of anesthesiologists as independent specialists was significantly low among the general population.^[11] These findings collectively indicate a global lack of recognition of anesthesiology as a distinct and critical medical specialty.

Regarding the purpose of anesthesia, the majority of participants (88%) in this study correctly identified its role in pain relief, but only a minority understood its broader functions, including inducing unconsciousness and facilitating surgical conditions. This partial understanding is consistent with recent findings that patients often associate anesthesia primarily with analgesia rather than comprehensive perioperative management.^[15] Such limited understanding may contribute to unrealistic expectations and increased perioperative anxiety.

Previous exposure to anesthesia was reported by only 15% of patients among those who were aware. Studies have shown that prior anesthetic experience significantly improves patient knowledge and reduces misconceptions. For instance, recent research highlights that patients with previous surgical exposure demonstrate better understanding and confidence regarding anesthesia compared to first-time surgical candidates.^[14] In the present study, a similar trend was observed, where patients with prior exposure exhibited higher awareness levels. However, the majority of informed patients relied on indirect sources such as social interactions, which may not always provide accurate or comprehensive information.

Awareness regarding different types of anesthesia was notably low in this study, with only 19% of participants reporting any knowledge in this area. Among these, general anesthesia was the most commonly recognized, while awareness of regional and local anesthesia techniques was minimal. This pattern has also been reported in recent studies, where general anesthesia is more widely recognized due to its more noticeable effects, whereas regional techniques are less understood by patients.^[13] This gap highlights the need for better patient education regarding the various anesthetic options available.

Despite the low level of knowledge, patient attitudes toward anesthesia were generally positive. In this study, 83% of participants reported no fear of anesthesia, and 93% believed that anesthesia is safe when administered by a qualified doctor. These findings are consistent with recent literature demonstrating that patients often exhibit high levels of trust in healthcare professionals despite limited knowledge about specific medical procedures.^[12] Such trust provides a valuable opportunity for healthcare providers to enhance patient education and engagement.

Importantly, a large proportion of participants (83%) expressed a desire to learn more about anesthesia prior to surgery. This finding is particularly

significant, as it indicates a receptive attitude toward patient education. Recent studies have emphasized that improved perioperative communication significantly enhances patient understanding, satisfaction, and overall experience.^[14] Structured educational interventions, including verbal counseling, written materials, and audiovisual aids, have been shown to effectively improve patient knowledge and reduce preoperative anxiety.

The findings of this study underscore the critical role of the pre-anesthesia clinic as a platform for patient education. Given the substantial gaps in awareness identified, particularly among uneducated patients, targeted educational strategies should be implemented. These may include simplified explanations in local languages, visual aids, and interactive counseling sessions. Recent evidence suggests that such interventions can significantly improve patient comprehension and contribute to better perioperative outcomes.

In comparison with recent global studies, the results of the present study are consistent in demonstrating low levels of awareness but differ in the relatively higher proportion of patients expressing confidence in anesthesia safety. This suggests that while knowledge gaps persist, patient trust in healthcare systems remains strong. Bridging this gap between trust and knowledge is essential for improving informed consent and patient-centered care.

CONCLUSION

In conclusion, the present study confirms that patient awareness regarding anesthesia remains inadequate, with significant misconceptions about the role of anesthesiologists and the nature of anesthetic procedures. However, the positive attitude and willingness to learn observed among patients provide an important opportunity for intervention. Strengthening patient education through structured communication in pre-anesthesia clinics can play a crucial role in improving awareness, reducing anxiety, and promoting informed decision-making in perioperative care.

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