

A Survey on Awareness about the Role of Anesthesia and Anesthesiologists among the Patients Undergoing Hysterectomy**Richa Ahirwar¹, Yashwant Dhawale², Vandana Pandey³, Ayushi Chattrashali^{4*}, RP Kaushal⁵**¹Junior Resident, Department of Anaesthesiology, Gandhi Medical College, Bhopal, M.P.²Associate Professor (Designated Professor), Department of Anaesthesiology, Gandhi Medical College, Bhopal, M.P.³Assistant Professor, Department of Anaesthesiology, Gandhi Medical College, Bhopal, M.P.⁴Junior Resident, Department of Anaesthesiology, Gandhi Medical College, Bhopal, M.P.⁵Professor and HOD, Department of Anaesthesiology, Gandhi Medical College, Bhopal, M.P.

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Abstract:

Background: Anesthesiologists play a crucial role in the preoperative and postoperative management of patients and also outside operating theater (OT) such as critical care, pain clinic, and labor analgesia, but they do not get due recognition. Hysterectomy consists of surgical removal of the uterus and, following C-section, it is the second most common surgery performed in female patients. Patient before hysterectomy remains mentally weak. She feels that the operation should not be painful. The work of an anesthesiologist is to understand the emotional and spiritual levels of such patients and make them aware.

Aims and Objectives: To assess patient awareness and understanding pre-elective hysterectomy regarding anesthesia and anesthesiologists' role, and analyzing patient perspectives on anesthesia as a specialty.

Materials and Method: Patients scheduled to undergo elective hysterectomy in the age group of 40–65 years with the American Society of Anesthesiologists (ASA) Grades 1 and 2, who are willing to participate and given written informed consent. ASA grade 3 and above were excluded.

Result: There was a statistically significant difference with $P < 0.05$ between the participants with higher level of education having a greater knowledge of anesthesia and role of anesthesiologist inside and outside OT than the patients with medium level of education (primary). Almost half (48%) had no idea about anesthesia, despite 62% having undergone previous surgery. The majority (90%) didn't know about anesthesia complications.

Conclusion: Most of the participants were not aware of the role of anesthesia and anesthesiologists inside and outside OT. The ignorance among the general population regarding the important role played by anaesthesiologists in major surgeries like hysterectomy, which associated with a high emotional burden, related to fertility, sexuality, and femininity, and can elicit strong physical, psychological, and social changes.

Keywords: Anesthesia, anesthesiologist, awareness.

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Introduction

Hysterectomy, the surgical removal of the uterus, ranks among the most prevalent gynecological procedures worldwide. [1] It addresses various medical conditions, including uterine fibroids, endometriosis, uterine prolapse, and certain cancers. While hysterectomy offers significant therapeutic benefits, it also carries profound physical, emotional, and psychological implications for patients, often intertwined with notions of femininity, fertility, and sexuality. [2]

Anesthesia plays a pivotal role in ensuring the safety, comfort, and successful outcomes of hysterectomy and other major surgical procedures. [3] Anesthesiologists, as specialized physicians, possess unique expertise in administering

anesthesia, monitoring vital signs, managing pain, and mitigating risks associated with anesthesia and surgery. [4] Despite the critical nature of their role, public awareness and understanding regarding the contributions of anesthesiologists remain underappreciated and often overlooked.

The lack of awareness among patients about the role of anesthesia and anesthesiologists in the perioperative period of hysterectomy can lead to heightened anxiety, misconceptions, and suboptimal decision-making processes. [5-7] Additionally, misconceptions about anesthesia may contribute to increased preoperative stress and postoperative dissatisfaction among patients. [8,9]

Therefore, this study aims to assess the level of awareness, understanding, and perceptions among patients scheduled to undergo hysterectomy regarding the role of anesthesia and the vital contributions of anesthesiologists in their perioperative care. By exploring patient perspectives and knowledge gaps, this research endeavors to inform healthcare providers, policymakers, and patient advocacy groups about the importance of education and communication in improving patient experiences and outcomes in the context of hysterectomy and surgical anesthesia.

Materials and Methods:

After obtaining approval from the Institutional Ethical Committee, a cross-sectional observational study was conducted at Gandhi Medical College, Bhopal, specifically within the Department of Anaesthesiology.

The survey was administered to 50 patients scheduled to undergo elective hysterectomy within the timeframe of April 15, 2023, to September 15, 2023, spanning a duration of six months.

Inclusion Criteria:

- Patients classified under American Society of Anesthesiologists (ASA) Grades 1 and 2.
- Patients aged between 40 and 65 years.
- Patients scheduled for elective hysterectomy.

Exclusion Criteria:

- Patient's refusal to participate.
- Patients diagnosed with mental illness.

Upon confirming the patients' willingness to participate in the questionnaire, they were provided with an explanation regarding the nature of the questions. The questionnaire was made available in two languages – Hindi and English.

For illiterate patients and those whose vernacular language was other than Hindi or English, a female interpreter, who was not associated with the study, was engaged to aid in the comprehension of the questions.

Literate patients were presented with questionnaire forms and instructed to select the answers of their choice. The survey was conducted during the preanesthesia check-up session.

The questionnaire utilized in the study was pre-designed, pretested, and comprised three sections:

- Demographic data.
- Questions pertaining to anesthesiology.
- Queries regarding the role of an anesthesiologist.

The questionnaire consisted of a total of 21 questions aimed at assessing patients' awareness and understanding of anesthesia and the role of anesthesiologists in the perioperative management of hysterectomy.

Table1: Questionnaire used for the study

Section	Section Details	Description
I	Demographic data	Name: Age: Sex: Male/Female Occupation: Date of surgery: IPD No: Language: Hindi/English Diagnosis: Qualification: Not educated/Primary/High School/Intermediate/Graduation/Post Graduation Address
II	Anesthesiology	1. Have you undergone any surgical procedure? 2. What is your idea/opinion about anesthesia? Yes/No/No idea/making area numb/putting to sleep/making unconscious 3. Do you have any previous exposure to anesthesia? Yes/no/only local/general 4. What is your source of information about anesthesia? No idea/Media/relative/friend/self-exposure/surgeon/nurse/ Anesthetist 5. What are your fears about the operative procedure? Don't know/feeling pain/being awake/being anesthetized/surgical procedure 6. What are your fears related to anesthesia? Don't know/feeling pain/becoming unconscious/not waking up/not able to move

		7. Do you know about complications due to anesthesia? General anesthesia - no idea/overdose/not waking up/ventilator support/death, Regional anesthesia - no idea/backache/nerve injury/muscle weakness 8. Have you been explained about giving consent for anesthesia procedure? Yes/no/only for surgery 9. Do you know about different types of anesthesia? No/yes-general anesthesia/spinal/local 10. What do you know about techniques in regional anesthesia? No idea/yes - spinal/epidural/local blocks
III		11. Who is an anesthesiologist? No idea/doctor/specialist/technician/assistant 12. What is the role of anesthetist in operation theater? No idea/administers drugs only/anesthetizes and monitors patient 13. Do anesthesiologists stay throughout the procedure? No idea/maybe/yes/no 14. How do you think patients will be anesthetized? No idea/only injection at the site/injection/gasses administered with kerchief 15. How many anesthesiologist/anesthetists do you think will be present in operation? No idea/One/two/three 16. Who is responsible for pain relief during and after surgery? No idea/nurse/anesthetist/surgeon/all 17. Would you like to meet anesthesiologist/surgeon before undergoing surgery? Yes/no/only treating surgeon/both 18. Do you think it is important to meet anesthesiologist before surgical procedure? Yes/no/no idea 19. Who directed you to meet the anesthesiologist? Surgeon/nurse/self 20. Are the anesthesiologists responsible for the recovery of the patient? No idea/yes/no 21. What other places does the anesthesiologist work in the hospital set up? No idea/operating theater only/Intensive Care Unit/recovery/pain clinic

Statistical Analysis

The study performed statistical analyses to explore the relationships between patient literacy levels, past exposure to anesthesia, and knowledge about anesthesia. One-way ANOVA was used to assess the correlation between patient knowledge about anesthesia and increasing literacy levels. The Student's t-test was employed to evaluate the correlation between patient knowledge and their past exposure.

Results

Out of the 50 participants surveyed, 70% were educated, while the remaining 30% were illiterate. Among the educated participants, 22% had completed high school, and 20% had attained an intermediate level of education.

A statistically significant difference ($P < 0.05$) was observed, indicating that participants with higher levels of education demonstrated a greater understanding of anesthesia and the role of anesthesiologists both inside and outside the operating theater compared to those with a medium level of education (primary education).

Surprisingly, nearly half (48%) of the participants had little to no understanding of anesthesia, despite 62% of them having undergone previous surgeries. Furthermore, a vast majority (90%) were unaware of the potential complications associated with anesthesia.

There was no statistically significant difference between participants who had undergone previous surgeries and those who had not, regarding their knowledge of anesthesia.

Table 2: Comparing Scores with Education level

Literacy Level	Illiterate	Primary (0-5)	Secondary (6-10)	11-Graduate	PG
N	15	9	11	10	4
Total Score	25	17	32	47	20
Mean Score	1.66	1.9	2.9	4.7	5
S.D	1.19	1.63	1.63	2.15	2.47

Table 3: Comparing scores with past experience

Past Exposure	Yes	No
N	27	23
Sum of Total score	80	64
Mean score	2.96	2.78
SD	2.04	2.21

Discussion

The study's findings reveals several notable points regarding patients' awareness of anesthesia and the role of anesthesiologists. Our study highlighted that despite a significant portion of patients (55%) having previous exposure to surgery, their overall awareness regarding anesthesia and various anesthesia techniques was found to be poor. This trend could be attributed to the high proportion (30%) of illiterate participants in our study, suggesting a potential correlation between educational level and awareness about anesthesia.

This observed lack of knowledge resonates with similar findings from surveys conducted by Uma BR and Hanji AS in our country, particularly in rural areas. [10,11] The consistency across studies underscores a widespread issue regarding patient awareness of anesthesia, which demands attention and targeted educational interventions.

In contrast, findings from studies, such as that by Swinhoe and Groves in the UK indicate a notably high level of awareness (80%) about the role of anesthetists among the UK population. [12] This disparity likely reflects the higher literacy rates in Western countries like the UK, as well as the reported better interaction between anesthesiologists and patients during pre-anesthetic evaluation (PAE), as noted by Naithani et al. [9]

Our study underscores the crucial role played by anesthesiologists both inside and outside the operating theater, yet it reveals a concerning lack of awareness among patients regarding the scope of anesthesiologists' responsibilities. [13,14] This gap suggests a need for enhanced patient education initiatives and improved communication strategies between healthcare providers and patients, particularly during pre-anesthetic evaluations, to ensure patients are adequately informed about the role and contributions of anesthesiologists in their care.

Conclusion

The ignorance among the general population regarding the important role played by anaesthesiologists in major surgeries like hysterectomy which associated with a high emotional burden and can elicit strong physical, psychological, and social changes. Anaesthesiologists should educate patients about their role and anaesthesia through spending more time in PAE clinics, more interaction with patients,

and with the help of print, electronic media, public health melas, and familiarizing themselves with the patients before surgery.

While our study sheds light on the current state of patient awareness regarding anesthesia and anesthesiologists, further research and interventions are warranted to bridge the knowledge gap and empower patients to make informed decisions about their perioperative care. Collaboration between healthcare professionals, policymakers, and patient advocacy groups is essential to develop comprehensive educational programs aimed at enhancing patient understanding and promoting optimal outcomes in anesthesia management.

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