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Original Article

A Cross-sectional Observational Study to Assessment of the Knowledge and Awareness of Patients Regarding Anesthesia and Anesthesiologists in a Tertiary Hospital of Bangladesh.

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Abstract:

Introduction: Anesthesiology has evolved from a specialty limited to the operating room to a comprehensive discipline involved in perioperative care, intensive care, labor analgesia, and pain management. Despite their critical role in ensuring patient safety through vigilant monitoring and management of physiological functions during surgery, anesthesiologists often receive limited recognition from patients and the public. This study aimed to assess the knowledge and awareness of patients regarding anesthesia and anesthesiologists in a tertiary care hospital setting.

Methods: This cross-sectional observational study was conducted in the Department of Anesthesia at Sylhet Women's Medical College Hospital, Bangladesh, from October to December 2025. A total of 300 postoperative patients undergoing routine surgery with ASA physical status I and II were included. Patients with ASA grade III or higher and those unwilling to participate were excluded. Ethical approval was obtained from the Institutional Ethical Review Board of Sylhet Women's Medical College. Data were collected using a pre-validated questionnaire with interpreter assistance when required. Responses were entered into Microsoft Excel and analyzed using descriptive statistics to calculate percentages.

Results: Nearly half of the participants (45.67%) believed anesthesia mainly involved making a body area numb, while 12% had no idea about anesthesia. Previous exposure to anesthesia was reported by 41% of respondents. Surgeons were the most common source of information (36.67%). The most frequent fear related to anesthesia was experiencing pain during surgery (35%), followed by fear of not waking up (21%). Although 75.67% identified anesthesiologists as doctors, only 15.33% recognized their role in both administering anesthesia and monitoring patients. More than half (53.33%) were unaware of the importance of pre-anesthetic consultation, and 90.33% did not know about the anesthesiologist's role in postoperative recovery.

Conclusion: Patient awareness regarding anesthesia and the role of anesthesiologists remains limited. Improved patient education and preoperative communication are essential to enhance understanding, reduce anxiety, and promote recognition of anesthesiologists' critical role in perioperative care.

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Introduction:

Anesthesiology as a specialty has undergone remarkable transformation over the past several decades since the first successful public demonstration of anesthesia in 1846.

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Today, anesthesiologists contribute fundamentally to perioperative management, intensive care services, labor analgesia, and the practice of pain medicine. The discipline

was once regarded largely as a "behind-the-screen" specialty; however, only in recent years has anesthesiology expanded well beyond the confines of the operating theater, leading to growing recognition of anesthesiologists' responsibilities in pain clinics, obstetric analgesia, accident and emergency departments, and Intensive Care Units.[1]

Anesthesiology represents both the art and science of alleviating surgical pain, where patient safety remains the highest priority and is ensured through constant vigilance and uninterrupted monitoring.[1] During and after operative procedures, anesthesiologists safeguard patients from potential complications by maintaining stable vital functions, providing effective analgesia, and creating optimal surgical conditions for the operating surgeon. Continuous observation and timely intervention are essential components of this protective role.[1,2]

Nevertheless, although anesthesiologists clearly hold a pivotal position in perioperative patient care as well as in labor analgesia, critical care, and pain management, it is widely perceived that they do not consistently receive the professional acknowledgement they merit from the public or even from colleagues within the medical community.[3] Previous surveys assessing knowledge about anesthesia and the role of anesthesiologists have been reported in different populations. Most of these investigations were carried out among members of the general public[4,5] or within rural communities[6] and heterogeneous groups of hospitalized patients without focusing on any particular clinical setting.[7,8]

The rationale of the study was to establish a rapport between the anesthesiologists and the patients. Most of the time the anesthesiologist remains out of the picture during the whole surgical procedure. Anesthesiologists do not get enough information about the fear and concerns which need to be addressed.

This was a cross-sectional observational study where data were collected by questionnaire. The aim of the study was to assess the knowledge and awareness of the patients regarding anesthesia and anesthesiologists.

Methodology:

This was a cross-sectional observational study. The study place was the Anesthesia department of Sylhet Women's Medical College Hospital (SWMCH). Sample size was 300. Study period was from October 2025 to December 2025. Ethical approval was taken from the IERB of Sylhet Women's Medical College (SWMC). Informed consent was taken from each participants. Data was collected from the participants by a pre-validated questionnaire.[9] All the post-operative patients of ASA grade-1 and 2 who underwent routine surgery were included in the study. Post-operative patients of ASA grade 3 or above and the patients who did not give consent were excluded. During data collection one interpreter was present to explain the questionnaire to the participant. After collecting the data, it was transferred to Excel sheet. Categorical calculation was done to find out the percentages.

Result

Table-1: According to age frequency and gender.

Age frequency	**No.**	**Percentage**
18 - 29 years	125	41.67%
30-39 years	65	21.67%
40-49 ears	44	14.67%
>50 years	66	22%
Gender	**No.**	**Percentage**
Male	124	41.33%
Female	176	58.67%

Table 1 shows most of the study population belongs to the age group ranging from 18- 29 age group followed by 30-39 age group and female were more than males among the participants.

Table-2: According to types of anesthesia and different types of surgical departments

Types of anesthesia	**No.**	**Percentage**
SAB	135	45%
G/A	162	54%
Regional	03	1%
Types of departments	**No.**	**Percentage**
ENT	09	3%
General Surgery	101	33.67%
OBG	74	24.67%
Orthopedics	67	22.33%
Plastic surgery	18	6%
Pediatric surgery	09	3%
Urology	22	7.33%

Table 2 clarifies that most of the surgeries were done under GA and SAB and least under regional blocks and demonstrate that majority of the participants were admitted under

General Surgery, Gynecology & Obstetrics and Orthopaedics departments.

Table-3: Idea/opinion about anesthesia.

Answers	Number	Percentage
No idea	36	12.00
Making area numb	137	45.67
Putting to sleep	80	26.67
Making unconscious	47	15.67

Table-3 reveals about fifty percent of the population thinks anaesthesia is all about making an area numb for the purpose of surgery.

Table-4: Previous exposure to anesthesia.

Answers	Number	Percentage
Yes	123	41.00
No	177	59.00

Table-4 showed nearly forty percent people undergoing surgery have previous exposure to anaesthesia.

Table-5: Source of information about anesthesia.

Answers	Number	Percentage
No idea	30	10.00
Media	21	7.00
Relative	67	22.33
Friend	09	3.00
self- exposure	39	13.00
Surgeon	110	36.67
Nurse	23	7.67
Anesthetist	01	0.33

Table-5 illustrated that ten percent population have no idea about anaesthesia wheares nearly one-third knew about anaesthesia from surgeons.

Table-6: Fears related to anesthesia?

Answers	Number	Percentage
Don't know	40	13.33
Feeling pain	105	35.00
Becoming unconscious	42	14.00
Not waking up	63	21.00
Not able to move	50	16.67

Table-6 denotes that most common fear among people related to anaesthesia is feeling pain during surgery.

Table-7: Knowing about complications due to anesthesia.

Answers	Number	Percentage
No idea	146	48.67
Overdose	05	1.67
Not waking up	145	48.33
Ventilator support	01	0.33
Death	03	1.00

Table-7 shows about half of the population have no idea about complications related to anaesthesia and half thinks they might not wake up after being anaesthetized.

Table-8: Identity of an Anesthesiologist?

Answers	Number	Percentage
No idea	71	23.67
Doctor	227	75.67
Specialist	01	0.33
Technician	00	0.00
Assistant	01	0.33

Table-8 clarifies that one-quarter participants did know that what is meant by being an Anaesthesiologist whereas nearly three-quarter knew that anethesiologists were doctors.

Table-9: Role of anesthetist in Operation Theater.

Answers	Number	Percentage
No idea	122	40.67
Administers drugs only	132	44.00
Anesthetizes and monitors patient	46	15.33

Table-9 revealed that participants mostly thought that the anaesthesiologist's task is just giving some drugs or medicines.

Table-10: Number of anesthesiologist (s) present in operation room.

Answers	Number	Percentage
No idea	118	39.33
One	157	52.33
Two	23	7.67
Three	02	0.67

Table-10 described that nearly half of the population thought only one anesthesiologist were present during surgery when 39.33 % had no idea about the number anesthesiologists.

Table-11: Importance to meet anesthesiologist before surgical procedure.

Answers	Number	Percentage
Yes	37	12.33
No	103	34.33
No idea	160	53.33

Table-11 showed that nearly half of the participants did not know the importance of meeting the Anaesthesiologist before surgery or pre anaesthetic checkup.

Table-12: About responsibility of anesthesiologists for the recovery of the patient

Answers	Number	Percentage
Yes	11	3.67
No	18	6.00
No idea	271	90.33

Table-12 described that ninety percent of the patients did not have any idea about the role of the anesthesiologists for the recovery of the patients.

Discussions:

An anesthesiologist is a specialized doctor who provides expert care before, during, and after surgery. They also focus on pain relief and patient safety through anesthesia. But most of the people do not know about the role of an anesthesiologist in any surgical procedure. Our study reveals that 75% of patients know that anesthesiologists are doctors. This was also seen in a study which was conducted by Naithani U et al.[3] They also found in their study that only 42% of patients knew that an anesthesiologist did their job. In the same study, they found 27% of patients know that anesthesiologists monitor the vital signs throughout the surgery. But in our study, we found that 15% of patients know that anesthesiologists administer anesthesia and monitor the patient. Naithani U et al.[3] also revealed that patients are unaware about the role of an anesthetist in the ICU, painless labor, and the pain clinic sector. In our study, we revealed that 45% of patients know that anesthetists only administer drugs.

In a standard routine operation, there is typically one dedicated anesthesiologist present in the operating room to monitor the patient. However, the number of anesthesia providers can vary based on the complexity of the case or whether it is a teaching hospital. Our study revealed that 52% of patients thought only one anesthesiologist was present during surgery, while 40% had no idea about the number of anesthesiologists during any operation procedure.

Anesthesiologists are directly responsible for the recovery of the patient from anesthesia. In our study, 90% of patients did not have any idea about the role of anesthesiologists for the recovery of the patients. The anesthetist's responsibility does not end with the end of surgery; rather, they manage the unconscious patient to the conscious state. Their responsibilities are not only regaining the patient consciousness but also emphasizing continuous evaluation and monitoring of vital signs. The Royal College of Anesthetists (RCOA), European Society of Anesthesiology and intensive care (ESAIC), American Society of Anesthesiologist (ASA) provides publications and guidelines regarding the role of Anesthesiologist in recovery phase.

A meeting between an anesthesiologist and a patient is very much important before going through any surgical procedure. In our study, we revealed that nearly 54% of participants did not know the importance of meeting the anesthesiologist before surgery or the pre-anesthetic check-up. Pre-operative anxiety is a major concern for many patients. A study conducted by Kopfenstein CE et al. reveals that pre-anesthetic assessment in an outpatient consultation clinic reduces pre-operative anxiety compared to an assessment on the evening before surgery.[13] Another study, Singh P et al., shows 83% of patients were not aware of pre-operative consent.[6] Also, 47% of patients were not able to recognize the type of anesthesia due to lack of education among rural people and lack of pre-operative counseling before operation by the anesthetist. So, an appropriate time should be given between the patient and the anesthetist during PACU time to know about anesthesia and the anesthetist in a surgical procedure for better outcomes.

The basic knowledge of anaesthesia was very poor in study population. Half of the study population think anaesthesia is all about making an area numb. Ten percent are

completely unaware about anesthesia. But many people were eager to know the importance of anesthesia having been explained about it. This scenario was also similar to a study by Udita Naithani, Dharam Purolit Public awareness about anesthesia & ancesthesiologist. A survey Indian Journal of annesthesia 2007; 51 (5): 420-26.[3] Some studies conducted elsewhere shows (50 to 88.7)% people knew anaesthesiologist as a doctor. Same studies have female patients who were educated with bachelor's degree. In our study female patients were more but their level of education may have affected knowledge of anaesthesia.

Majority of the population were unaware about anesthesia until they have been underwent surgery. But still, sixty percent of them having previous surgery thinks it is all about "putting to sleep or making an area numb."[1] The Audit Commission in England did not see any role of anesthesiologist outside the operating room. Even till date many universities do not have mandatory role for anesthesiology as a subject to be taught to undergraduate medical students.[14] So the basic knowledge about anaesthesia & its techniques were very poor among our study population like the study by BR Uma et al.

In our study we have found most people gather knowledge of anasthenia from surgeons and it is quite similar to a study by S K Mathur et al Knowledge about anaesthesia & anaesthesiologist among general population in India.[2] Both those studies show despite the availability of electronic media its potential has always being under-utilized. There were fewer options of choosing an anaesthesiologist by the patient. This scenario differs from developed to underdeveloped countries.

Majority of the population fear of feeling pain & completely unaware about perioperative care. Some also thinks. (21%) that they won't wake up after being anesthetized. Studies in developed countries differs in the like study by Sepideh Vahabi et al [15]. But both the study shows people mostly know about GA. Other findings is that most females are aware of regional anaesthesia than GA. Complications related to anaesthesia & its perioperative monitoring were mostly unknown by the population which was also found in the study by Naithani U, Purohit D[3]. But regarding our findings of complications related to anaesthesia differs from the study by Shere k, Pangopulous New York. This is related to Socioeconomic difference of ours to them.

Fear and anxiety related to anesthesia are common. Some researchers found that 88.9% of preoperative patients showed an overall fear whereas 10.8% of the surveyed participants exclusively worried about anaestheria.[3] In contrast to ours, our patients are only worried about feeling pain or not waking up after the surgery. Half don't have any idea about complications. On the other hand, two prior study reveals that only 16-90% & 12.10% don't have any idea about complications respectively. Being completely unaware about complications are close to ours in same parts of South east Asia.

Conclusion:

The findings of this study demonstrate that the overall knowledge and awareness of anesthesia and the role of anesthesiologists among patients remain inadequate. Although a majority of participants recognized anesthesiologists as doctors, many had limited understanding of their responsibilities during surgery, perioperative monitoring, and postoperative recovery. A significant proportion of patients believed anesthesia was limited to inducing sleep or making an area numb, while many were unaware of potential complications, the importance of pre-anesthetic evaluation, or the anesthesiologist's role in patient recovery. Fear related to anesthesia, particularly regarding intraoperative pain and failure to awaken after surgery, was also common. These results highlight the need for improved patient education and more effective preoperative communication between anesthesiologists and patients. Increasing awareness through counseling, public education, and better utilization of media may help reduce misconceptions and anxiety while improving recognition of the anesthesiologist's vital role in perioperative patient care.

Conflict of interest: No conflict of interest was declared by any of the coauthors.

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