

# Knowledge and Attitudes of Patients, MBBS Students, Nurses, and Technicians Toward Preoperative and Postoperative Instructions in Elective Surgeries

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## ABSTRACT

**Background:** Effective preoperative and postoperative instructions are critical for optimal surgical outcomes. However, the level of understanding and attitudes toward these instructions may vary across stakeholders involved in elective surgeries. **Objective:** To assess and compare the knowledge and attitudes of operated patients, MBBS students, nurses, and technicians regarding preoperative and postoperative instructions in elective surgeries. **Methods:** A cross-sectional descriptive study was conducted among 200 participants: 50 operated patients from various departments, 50 MBBS students, 50 nurses, and 50 technicians. A structured Likert-scale questionnaire was used to assess knowledge and attitudes. **Results:** Nurses demonstrated the highest knowledge scores (mean = 82.4%), followed by MBBS students (78.6%), technicians (65.2%), and patients (58.9%). Positive attitudes were highest among nurses and students, while patients showed moderate compliance and understanding. **Conclusion:** While healthcare professionals showed satisfactory knowledge and attitudes, gaps remain among patients and technicians. Targeted educational interventions are recommended to improve surgical literacy and compliance.

**Keywords:** Knowledge, Attitude, Patients, MBBS students, Nurses, Technicians, Preoperative instructions, Postoperative instructions, Elective surgeries

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## INTRODUCTION

Elective surgeries require meticulous preparation and recovery protocols. Preoperative instructions—such as fasting, medication adjustments, and hygiene—alongside postoperative guidance—like wound care, mobility, and follow-up—are essential for reducing complications and enhancing recovery<sup>2</sup>. Despite their importance, adherence and comprehension vary widely among stakeholders.

This study investigates the knowledge and attitudes of four key groups—patients, MBBS students, nurses, and technicians—toward surgical instructions, aiming to identify gaps and inform educational strategies.

## MATERIALS AND METHODS

### Study Design and Setting

A cross-sectional study was conducted over three months in two tertiary care hospitals in India. These hospitals were National Institute of Medical Sciences & Research (NIMS&RH), Jaipur, Rajasthan and Government Institute of Medical Sciences (GIMS), Gautam Buddha Nagar, Greater Noida, Uttar

Pradesh. Participants were recruited from surgical wards, Medical Colleges, Paramedical Colleges and Nursing Colleges .

#### **Sample Size and Sampling**

- **Operated patients (n=50):** From general surgery, orthopedics, gynecology, and ENT departments.
- **MBBS students (n=50):** Final-year students with clinical exposure.
- **Nurses (n=50):** From surgical and recovery units.
- **Technicians (n=50):** Operating theatre and Anesthesia support staff.

Stratified random sampling ensured balanced representation.

#### **Data Collection Tool**

A validated structured questionnaire with 30 items (20 knowledge-based, 10 attitude-based) was administered. Items were rated on a 5-point Likert scale (Strongly Disagree to Strongly Agree). Domains included:

- Understanding of preoperative protocols
- Awareness of postoperative care
- Attitudes toward compliance and patient education

#### **Structured 15-Item Likert-Scale Questionnaire**

**Instructions to Respondents:** Please indicate your level of agreement with each statement using the following scale:

- 1 – Strongly Disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly Agree

#### **Section A: Knowledge (Items 1–10)**

##### **No. Statement**

- 1 I understand the importance of fasting before elective surgery.
- 2 I am aware of the need to stop certain medications before surgery.
- 3 I know that proper hygiene reduces surgical site infections.
- 4 I understand the role of informed consent before surgery.
- 5 I am familiar with the instructions regarding mobility after surgery.
- 6 I know how to care for surgical wounds postoperatively.
- 7 I understand the importance of follow-up visits after surgery.
- 8 I am aware of dietary restrictions after surgery.
- 9 I know the signs of postoperative complications (e.g., fever, bleeding).
- 10 I understand the role of pain management in recovery.

#### **Section B: Attitudes (Items 11–15)**

##### **No. Statement**

- 11 I believe preoperative instructions improve surgical outcomes.
- 12 I feel confident in following postoperative instructions.
- 13 I think healthcare staff should explain instructions in detail.
- 14 I am willing to ask questions if I do not understand instructions.
- 15 I believe patient education should be part of routine surgical care.

**Ethical considerations:** Deemed to be unnecessary.

#### **Statistical Analysis**

Data were analyzed using SPSS v25. Descriptive statistics, ANOVA, and Chi-square tests were applied. Significance was set at  $p < 0.05$ .

## **RESULTS**

### **Demographics**

Group	Mean Age (years)	Gender Ratio (M:F)
Patients	42.6	28:22
MBBS Students	23.1	30:20
Nurses	29.4	12:38
Technicians	31.7	35:15

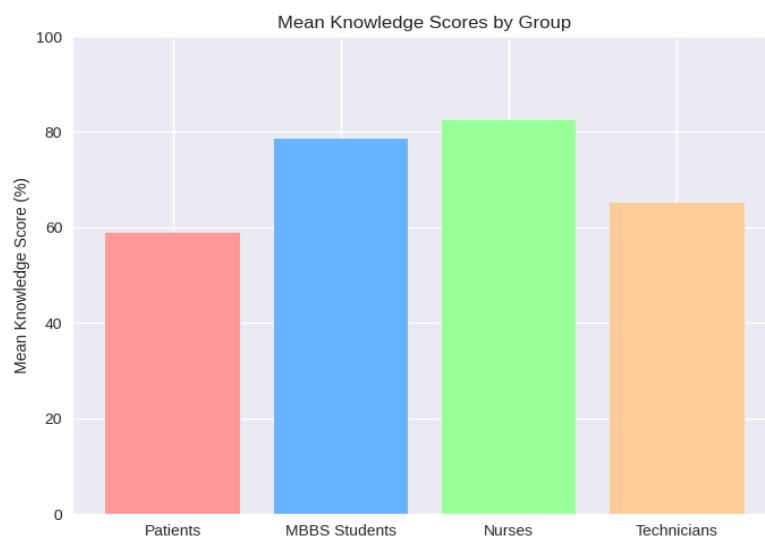
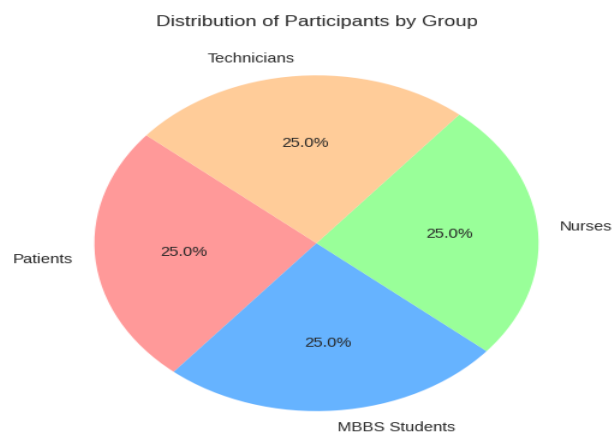
### Knowledge Scores

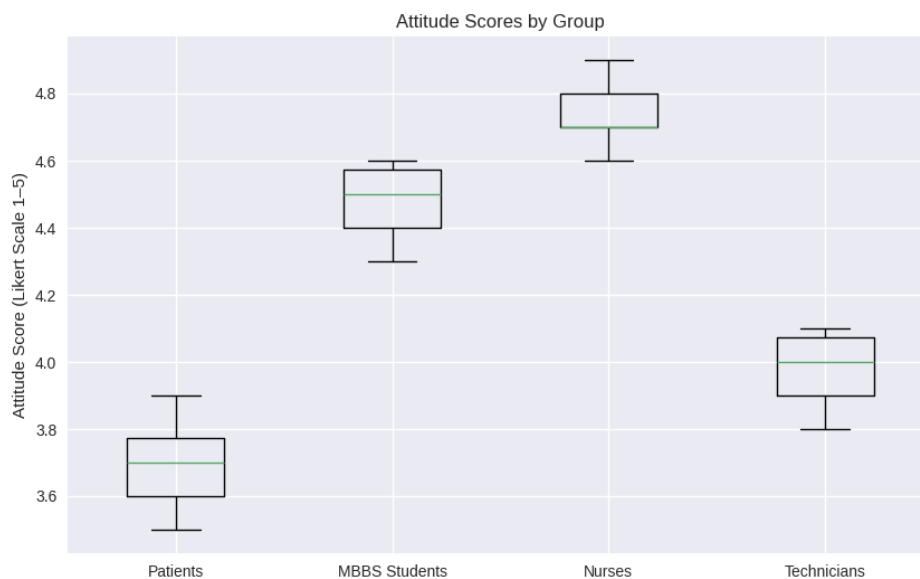
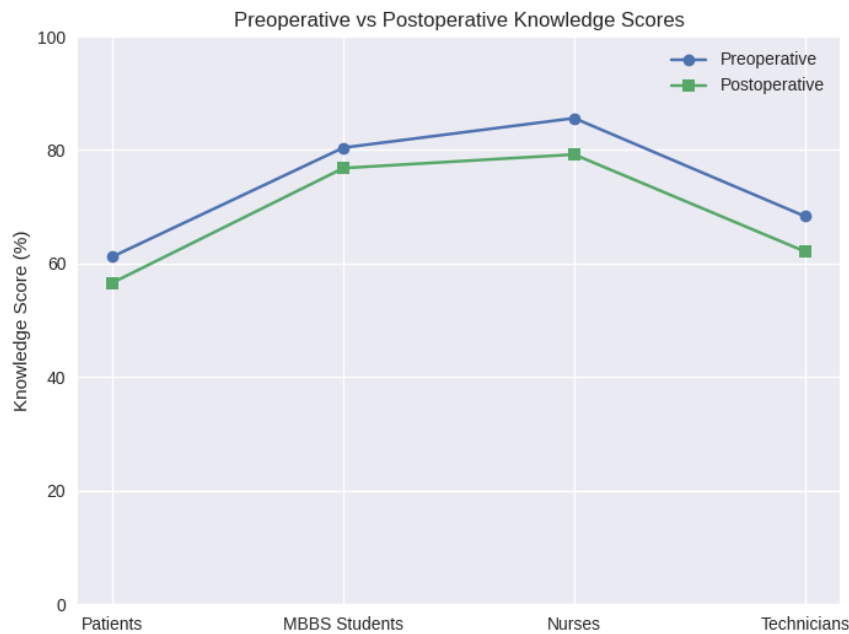
Domain	Patients	Students	Nurses	Technicians
Preoperative Instructions	61.2%	80.4%	85.6%	68.3%
Postoperative Instructions	56.6%	76.8%	79.2%	62.1%
Overall Knowledge	58.9%	78.6%	82.4%	65.2%

### Attitude Scores

Statement Example	Patients	Students	Nurses	Technicians
"Instructions improve recovery"	4.1/5	4.6/5	4.8/5	4.2/5
"I always follow instructions"	3.7/5	4.5/5	4.7/5	3.9/5

Statistically significant differences were found between groups ( $p < 0.01$ ), especially in knowledge scores between nurses and patients.





## DISCUSSION

The findings align with prior studies indicating that healthcare professionals possess higher surgical literacy<sup>3</sup>. Nurses, due to their direct role in patient education, scored highest in both domains. MBBS students showed promising knowledge but moderate attitudes, suggesting a need for experiential reinforcement.

Patients, despite undergoing surgery, had the lowest scores, highlighting a gap in effective communication and retention. Technicians, though involved in perioperative care, lacked formal training in patient instruction.

Barriers identified included:

- Time constraints during discharge
- Lack of standardized educational materials
- Language and literacy challenges among patients

## CONCLUSION

Knowledge and attitudes toward surgical instructions vary significantly across stakeholder groups. Enhancing patient education, integrating instruction modules into medical curricula, and training paramedical staff can bridge these gaps.

## Recommendations

- Develop multilingual visual aids for patient education.
- Conduct workshops for technicians on perioperative protocols.
- Integrate simulation-based instruction for MBBS students.
- Standardize nurse-led preoperative counseling sessions.

**ACKNOWLEDGEMENT:** The authors acknowledge the help rendered by NIMS University Jaipur Rajasthan, SMBT, IMS&RC, Nashik, Maharashtra and GIMS Greater Noida, UP for their help in carrying out this study.

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