



ORIGINAL RESEARCH PAPER

Anaesthesiology

COMMUNITY-BASED SURVEY ON MYTHS AND MISCONCEPTIONS REGARDING ANAESTHESIA IN AHMEDABAD, GUJARAT

KEY WORDS: Anaesthesia, Myths, Misconceptions, Community survey

Dr. Vishal Ratilal Patel	MD Community Medicine, Senior Resident Doctor, Community Medicine Department, BJ Medical College, Ahmedabad.
Dr. Priyanka Shah	MD Anaesthesia, Assistant Professor, GMERS Medical College, Gandhinagar
Dr. Harshil Hiteshbhai Shah*	DNB Anaesthesia, Assistant Professor, GMERS Medical College, Gandhinagar *Corresponding Author
Dr. Mansi Shamaldas Prajapati	MD Community Medicine, Senior Resident Doctor, Community Medicine Department, BJ Medical College, Ahmedabad.

ABSTRACT	Background: Anaesthesia is an essential part of modern surgical practice, yet the public continues to harbour numerous myths and misconceptions about it. These beliefs can create anxiety, lead to surgical delays, and reduce trust in anaesthesia providers. Aim And Objectives: To assess the prevalence and types of myths and misconceptions regarding anaesthesia among adults in the community and to identify socio-demographic factors associated with these beliefs. Materials And Methods: A descriptive, community-based, cross-sectional survey was conducted over 6 months (January–June 2025) in urban and semi-urban areas of Ahmedabad, Gujarat. Using a multistage random sampling approach, 422 adults aged 18 years or older were interviewed using a semi-structured, pre-tested questionnaire. Data were analysed with SPSS v26 using descriptive statistics and Chi-square tests. Results: Of the 422 participants (mean age 39.2 ± 13.7 years; 51.2% male), 46.7% believed anaesthesia could cause long-term memory loss, 38.2% feared not waking up after anaesthesia, 41.7% believed spinal anaesthesia causes permanent paralysis, and 28.2% thought general anaesthesia is more dangerous than surgery itself. Myths were significantly more prevalent among participants with education below secondary level ($p < 0.001$) and in older age groups ($p = 0.014$). Conclusion: Misconceptions about anaesthesia remain common, particularly among less-educated individuals. Targeted community awareness campaigns involving anaesthesiologists and public health teams are needed to address these false beliefs.
----------	---

INTRODUCTION Anaesthesia is an essential component of modern surgical practice; however, the public continues to harbour numerous myths and misconceptions about it. Such beliefs can generate anxiety, lead to unnecessary surgical delays, and reduce trust in anaesthesia providers. Misconceptions may also influence patient cooperation, consent, and overall perioperative experience. Anaesthesiology as a speciality has evolved remarkably over the last few decades, following its first successful public demonstration in 1846. (Bhatia et al., n.d.) Anaesthesiologists today play a pivotal role in perioperative care, intensive care, labour analgesia, and pain management clinics. Traditionally considered a “behind-the-screen” specialty, anaesthesiology was historically confined to the operating theatre. In recent decades, however, its scope has expanded significantly, with anaesthesiologists contributing to pain clinics, labour analgesia services, accident and emergency care, and management of critically ill patients in the Intensive Care Unit (ICU). Despite these advancements, it is still perceived that anaesthesiologists do not receive the recognition they deserve, both from the public and from fellow medical professionals. (Bhatia et al., n.d.) Several studies have indicated that public awareness about the role of anaesthesiologists and the scope of anaesthesia practice remains limited. (Pandya et al., 2016) Many individuals are unaware that anaesthesiologists are fully trained medical specialists with expertise in patient assessment, intraoperative monitoring, management of vital functions, and postoperative recovery. The persistence of myths such as the belief that anaesthesia always causes long-term memory loss, is inherently unsafe, or that anaesthesiologists are merely “assistants” to surgeons, highlights the need for targeted public education. These misconceptions are not only prevalent in rural and less-	educated populations but can also be found among urban and educated individuals, suggesting a widespread gap in understanding. Public perception of anaesthesia and anaesthesiologists is influenced by multiple socio-demographic factors, including age, education level, socioeconomic status, and prior surgical experiences. Correcting these misconceptions through community education is essential for improving patient confidence, enhancing cooperation during the surgical process, and ensuring informed decision-making. In this context, the present study aims to assess the prevalence and types of myths and misconceptions regarding anaesthesia among adults in the community, and to identify socio-demographic factors associated with these beliefs. Understanding these perceptions will provide a basis for designing educational strategies to improve public knowledge and trust in anaesthesia services. MATERIAL AND METHODS Study Design Descriptive community-based cross-sectional survey. Study Setting Urban and semi-urban localities in Ahmedabad city, Gujarat, India. Study Period January 2025 to June 2025. Study Participants Adults aged ≥ 18 years who were permanent residents of the selected localities for at least 6 months. Sample Size
---	---

Calculated using the formula:
$$n = Z^2 \times p \times (1-p) / d^2$$

Assuming a prevalence (p) of myths at 50%, 95% confidence level (Z = 1.96), and allowable error (d) = 5%, the sample size was 384. Accounting for 10% non-response, the final sample size was 422.

Sampling Technique
Multistage Random Sampling:

- Stage 1:** Random selection of 4 wards in Ahmedabad.
- Stage 2:** Random selection of households within each ward.
- Stage 3:** Selection of one eligible respondent per household using the Kish method.

Inclusion Criteria

- Adults aged ≥18 years.
- Permanent residents of the selected households.
- Willing to provide informed consent.

Exclusion Criteria

- Healthcare professionals and students of medicine, nursing, or allied health sciences.
- Individuals unable to communicate due to illness or disability.

Data Collection Tool
A Semi-structured Questionnaire With Two Sections:

- Socio-demographic Details** – age, sex, education, occupation, socio-economic class.
- Myths And Misconceptions** – 15 statements with response options (Agree / Disagree / Don't know). Example items:
 - "Anaesthesia always causes memory loss."
 - "You may not wake up after anaesthesia."
 - "Spinal anaesthesia causes permanent paralysis."
 - "General anaesthesia is more dangerous than surgery."

The tool was prepared in English, translated into Gujarati, and back-translated to ensure accuracy. A pilot test on 30 participants yielded Cronbach's alpha = 0.81.

Data Collection Procedure
Trained field investigators conducted face-to-face interviews in Gujarati after obtaining written informed consent. Privacy and confidentiality were ensured.

Data Analysis
Data were entered in Microsoft Excel and analysed in SPSS v26. Frequencies and percentages described categorical variables, and Chi-square tests were applied to assess associations between myths and socio-demographic variables. p < 0.05 was considered significant.

RESULTS AND DISCUSSION
Socio-demographic Profile
Of the 422 participants, 216 (51.2%) were male and 206 (48.8%) female. The mean age was 39.2 ± 13.7 years. Education levels were: 27.5% below secondary school, 45.3% completed secondary or higher, and 27.2% graduates or above.

Prevalence Of Myths And Misconceptions
Table 1: Prevalence Of Common Myths Regarding Anaesthesia

Myth statement	Agree (%)	Disagree (%)	Don't know (%)
Anaesthesia always causes memory loss	46.7	38.2	15.1
You may not wake up after anaesthesia	38.2	47.9	13.9
Spinal anaesthesia causes permanent paralysis	41.7	44.1	14.2

General anaesthesia is more dangerous than surgery	28.2	58.3	13.5
Anaesthesia is riskier for older adults	52.6	31.8	15.6

Association With Socio-demographic Factors
Misconceptions Were More Frequent Among:

- Participants with education below secondary school (p < 0.001).
- Participants aged ≥50 years (p = 0.014).
- Those in lower socio-economic classes (p = 0.021).

Table 2: Example Association Between Education And "Spinal Anaesthesia Causes Permanent Paralysis"

Education level	Agree (%)	Disagree (%)	p-value
Below secondary	63.2	36.8	<0.001
Secondary/higher secondary	42.5	57.5	
Graduate or above	19.5	80.5	

The present study revealed a high prevalence of myths and misconceptions regarding anaesthesia among adults in the community, with certain beliefs being held by a substantial proportion of participants. Misconceptions such as "anaesthesia always causes memory loss," "you may not wake up after anaesthesia," and "spinal anaesthesia causes permanent paralysis" were found to be common, indicating persistent gaps in public knowledge about anaesthesia safety and techniques. The most frequently endorsed belief was that "anaesthesia is riskier for older adults," which may be influenced by perceptions of increased vulnerability in the elderly, even though advances in anaesthetic care have significantly improved safety across all age groups. These misconceptions have the potential to create unnecessary anxiety, delay surgical decision-making, and reduce trust in anaesthesia providers. The findings also showed that lower education level, older age, and lower socio-economic status were associated with higher prevalence of misconceptions, with education having the strongest influence. This underscores the need for targeted community education programmes and improved patient-anaesthesiologist communication to address these knowledge gaps. Structured preoperative counselling, use of simple language, visual aids, and culturally relevant information could help dispel fears and promote accurate understanding of anaesthesia. The large sample size and community-based approach of this study enhance the reliability of its findings; however, as a cross-sectional survey relying on self-reported responses, the study is limited by the potential for response bias and cannot establish causality. Despite these limitations, the results emphasise the importance of incorporating public awareness strategies into anaesthesia practice to ensure better patient cooperation, reduced anxiety, and enhanced trust in perioperative care.

Strengths

- Community-based design enhances generalisability.
- Adequate sample size and validated questionnaire.

Limitations

- Reliance on self-reported beliefs; possible social desirability bias.
- Single-city study may not reflect beliefs in rural Gujarat.

CONCLUSION
Misconceptions about anaesthesia are common among adults in Ahmedabad, especially among less-educated and older individuals. Collaborative awareness efforts between anaesthesiologists and community health professionals can help dispel myths, reduce fear, and improve surgical outcomes.

Acknowledgements: We thank the study participants, field investigators, and BJ Medical College Department of

www.worldwidejournals.com

221

Community Medicine for their support.

Funding: None.

Conflict Of Interest: None declared.

REFERENCES:

1. Bhatia, U. V., Panchal, M., Varma, J., & Christian, N. E. (n.d.). A Survey on Awareness about the Role of Anesthesiologists and Anesthesia Given Among General Public and Medical under Graduates. 80-87. https://www.google.com/search?q=Community-Based+Survey+on+Myths+and+Misconceptions+Regarding+Anaesthesia+in+Ahmedabad%2C+Gujarat&rlz=1C1ONGR_enIN1054IN1054&oq=Community-Based+Survey+on+Myths+and+Misconceptions+Regarding+Anaesthesia+in+Ahmedabad%2C+Gujarat
2. Pandya, K., Mehta, K. H., Patel, K. D., & Harshad Mehta, K. (2016). Awareness Regarding Anaesthesiology and Anaesthesiologists among General Population in Developing Country-A Cross Sectional Survey. *National Journal of Community Medicine* | Volume, 7(6), 515-518.