



## PATIENT SATISFACTION WITH ANESTHESIOLOGISTS AND ANESTHESIA SERVICES AT A CHARITY RUN TERTIARY CARE HOSPITAL.

Hira Ali<sup>1\*</sup>, Mobashir Ul Haque<sup>2</sup>, Anum Fatima<sup>3</sup>, Noor us Saba<sup>4</sup>, Behram Khan<sup>5</sup>, Hiranand Mal<sup>6</sup>

<sup>1\*</sup>Senior Registrar, Sindh Infectious Diseases Hospital Pakistan, dr.hiraali@hotmail.com

<sup>2</sup>Senior Registrar Sindh Infectious Diseases Hospital Pakistan, mobashirulhaque.23@gmail.com

<sup>3</sup>Senior Registrar Patel Hospital Karachi Pakistan, Anumf901@gmail.com

<sup>4</sup>Senior Registrar SIUT karachi Pakistan doctor.bahram.khan@gmail.com

<sup>5</sup>Assistant professor, Anaesthesia, SIUT Pakistan Heranand75@gmail.com

<sup>6</sup>Consultant Anaesthetist OJHA Hospital Karachi [sabajavid00@gmail.com](mailto:sabajavid00@gmail.com)

**\*Corresponding Author:** Hira Ali

\*Senior Registrar, Sindh Infectious Diseases Hospital Pakistan, dr.hiraali@hotmail.com

### Abstract:

Patient satisfaction is a critical indicator of healthcare quality and plays a substantial role in evaluating and improving clinical services, particularly in anesthesia care, where patient experience influences trust and overall clinical outcomes. This study assessed satisfaction levels among patients who received general anesthesia at The Indus Hospital, a free-of-cost Charity run tertiary care facility. A cross-sectional design was employed between 23 February and 23 May 2019, involving 89 patients aged 18 to 65 years undergoing elective surgeries. Participants were interviewed 24 hours postoperatively using a structured questionnaire, and satisfaction was determined based on a score threshold of 58. Results showed that 60.7% of patients were satisfied with the anesthesiologists and anesthesia services, while 39.3% were dissatisfied. Additionally, no statistically significant association was found between patient satisfaction and demographic variables such as age, gender, education level, or type of surgery ( $p = 0.515, 1.000, 0.489, \text{ and } 0.231$ , respectively). Although a majority of patients reported positive experiences, the findings highlight the need for further improvements in anesthesia care to enhance patient-centered outcomes. Strengthening communication, perioperative counselling, and postoperative follow-up may help increase satisfaction levels and contribute to better overall healthcare delivery.

**Keywords:** Patient satisfaction; anesthesiologists; Anesthesia services; Quality of care; General anesthesia

### Introduction:

The quality of healthcare is commonly described as the degree to which health services enhance the likelihood of achieving desired clinical outcomes while remaining in accordance with the most current professional standards [1-3]. A closely related concept is the patient's overall quality of life, which is often evaluated after surgery and anaesthesia [4]. This evaluation encompasses both objective indicators, such as the effectiveness of treatment and physical recovery as well as subjective elements, including perceived well-being and the patient's own assessment of

satisfaction with the care received [5-7]. Together, these dimensions form a comprehensive picture of how healthcare interventions influence a patient's post-treatment experience [8-9].

The notion of patient satisfaction has been explored extensively in healthcare research [10]. Swan, Sawyer, Van Matre, and McGee (1985) defined patient satisfaction as a positive emotional reaction that arises from a cognitive assessment, during which individuals compare their actual care experiences with their personal expectations or standards [11-13]. In other words, patients judge the quality of care by examining how closely their lived experiences align with what they believe healthcare should provide [14-16]. Adding to this perspective, Hanna Vuori stated in 1991 that whether or not patient satisfaction accurately reflects the technical skill of the clinician or the scientific quality of treatment is less important than the fact that dissatisfaction signifies a failure of the healthcare system to meet its goals. Vuori's statement highlights that patient satisfaction is not merely a superficial emotional response; rather, it serves as a meaningful measure of whether the healthcare system has successfully fulfilled its basic purpose [17-21].

Patient satisfaction therefore functions as a valuable indicator for both patients and healthcare providers [22]. For patients, it represents a way of articulating their views regarding the quality of interactions, communication, and care processes they experience [23]. For healthcare workers, it offers insight into how well their services are being received and provides a basis for evaluating their performance, improving clinical practices, and enhancing patient outcomes [24-27]. As a result, patient satisfaction plays a crucial role in evaluating the effectiveness of healthcare delivery and contributes directly to the ongoing improvement of clinical standards [28].

The patient's perception of a doctor's competence is especially influential in shaping the overall patient-physician relationship [29]. This holds particular importance for anesthesiologists, who must rapidly establish trust and confidence in an environment that is often stressful for both patients and their families [30]. The anesthesiologist's interaction with the patient typically occurs in a short but highly anxiety-prone period before surgery, when fears regarding pain, complications, and the surgical process are especially heightened [31-33]. High levels of preoperative anxiety have been shown to negatively impact patient management, increasing the risk of failed regional blocks and contributing to greater postoperative pain [34]. Therefore, fostering trust and reassurance before surgery is considered essential in reducing anxiety, improving perioperative cooperation, and ultimately enhancing the patient's overall experience [35].

With the widespread availability of medical information in the modern era, patient expectations regarding healthcare providers, particularly anesthesiologists have evolved considerably [2]. No longer are patients satisfied solely with being treated courteously or with the absence of complications [17]. Today, patients expect transparent discussions about potential anaesthetic risks, especially those associated with pre-existing medical conditions [22]. They also anticipate that healthcare providers will involve them in decisions by offering various treatment options and explaining the rationale behind each choice [8]. This shift toward informed participation underscores the growing importance of patient-centred care and shared decision-making. Consequently, the level of satisfaction a patient experiences with anaesthesia care is influenced not only by the clinical expertise of the anaesthesiologist but also by the quality of communication, the ability to provide clear information, and the interpersonal rapport established during preoperative consultations [35].

Research conducted by the Picker Institute in the United States identified eight core areas that patients consider essential markers of high-quality care [18]. These include respect for patients' values and preferences; coordination and integration of services; effective communication and education for both patients and their families; attention to physical comfort such as pain management; emotional support and reduction of anxiety; involvement of family members; continuity of care during transitions; and availability of medical services when needed [5]. These domains collectively form the foundation of patient-centred care and serve as benchmarks for evaluating healthcare quality from the patient's perspective [10]. The modern understanding of patient satisfaction also emphasizes active participation by patients in their healthcare decisions. Shared decision-making refers to a collaborative process in which clinicians and patients jointly

evaluate treatment options by considering both scientific evidence and the patient's individual preferences [14]. This partnership helps patients feel more informed, respected, and empowered, ultimately contributing to higher satisfaction. Likewise, Berwick's definition of patient-centred care underscores the importance of providing transparency, personalization, dignity, respect, and freedom of choice. According to this view, healthcare should be tailored to the unique needs and desires of each individual patient and their chosen family members, without exception [17].

Within the hospital environment, the preoperative assessment clinic plays a pivotal role in shaping the patient's first impression of the healthcare system [27]. This clinic serves as an early point of contact and a critical setting for coordinating care among surgical, anaesthetic, nursing, and laboratory professionals [4]. It offers an opportunity to ensure that patients are appropriately prepared for surgery and that necessary information is communicated efficiently to the operating room team. Many hospitals increasingly recognize the importance of patient satisfaction in maintaining a competitive standing within the healthcare marketplace [1]. As patients become more informed and selective, their perceptions of care quality significantly influence their loyalty, trust, and willingness to return for future services.

In anesthesiology specifically, patient satisfaction is heavily influenced by interactions during the preoperative period. These encounters allow anesthesiologists to explain the planned anaesthetic approach, address concerns, review medical histories, discuss postoperative pain management strategies, and ensure that patients understand the potential outcomes and risks [17]. Effective communication during this period not only promotes informed consent but also strengthens the patient's sense of safety and trust. Poor communication, on the other hand, may create anxiety, misunderstandings, or unrealistic expectations, all of which reduce satisfaction and may even affect clinical outcomes [5-7].

Thus, the patient's perception of their anaesthesia care is shaped by a combination of clinical competence, interpersonal communication, empathetic behaviour, and responsiveness to patient concerns. When anaesthesiologists dedicate time to understanding patient fears, providing clear explanations, and engaging in shared decision-making, patients are more likely to feel respected and confident in their care. As a result, their overall satisfaction improves.

### **Objective:**

To assess the frequency of patients satisfied with anaesthesiologists and anaesthesia services at the Indus Hospital.

### **Operational definitions:**

#### **Satisfaction:**

A cut off score of 58 were used to measure patient satisfaction. Scores below the cut off value were considered as unsatisfied and score greater than and equal to the cut off value were considered satisfied.

### **Materials and Methods**

#### **Study Design**

This study was designed as a cross-sectional investigation.

#### **Setting**

The research was conducted at The Indus Hospital in Karachi, which is a free-of-cost Charity run tertiary care health facility.

#### **Duration of Study**

Data collection was carried out over a period of three months, following the approval of the study synopsis by the College of Physicians and Surgeons Pakistan (CPSP) and the Institutional Review Board (IRB) of The Indus Hospital. The study period extended from 23rd February 2019 to 23rd May 2019.

### **Sample Size**

The sample size was determined using the WHO sample size calculator, based on a 95% confidence interval, a desired precision of 10%, and an anticipated satisfaction frequency of 63.6%. A total of 89 patients were included to meet the study objectives.

### **Sampling Technique and Selection**

A non-probability consecutive sampling technique was used to recruit participants. Patients were eligible for inclusion if they were between 18 and 65 years of age, had received general anaesthesia, underwent elective surgery, and provided informed consent. Patients were excluded if they were admitted to the ICU after surgery, were day-care surgical cases, or were discharged within 24 hours of the procedure.

### **Data Collection Procedure**

Patients who met the eligibility criteria and consented to participate were interviewed 24 hours after their elective surgery. The researcher administered a pre-coded questionnaire and explained each question to ensure comprehension, thereby minimizing the risk of misunderstanding. Patient responses were recorded directly by the researcher on the questionnaire.

### **Data Analysis Procedure**

Data entry and analysis were performed using SPSS version 24.0. Quantitative variables, such as age and satisfaction scores, were described using mean  $\pm$  standard deviation, median (IQR), and range. Categorical variables, including gender, education, type of anaesthesia, type of surgery, and satisfaction-related responses, were summarized as frequencies and percentages. Statistical comparisons of age and satisfaction scores between genders were conducted using the Independent Sample t-test or Mann–Whitney U test, as appropriate. Differences in age across satisfaction levels were also assessed. The Chi-square test or Fisher's exact test was used to determine associations between patient satisfaction and variables such as age group, gender, education, and type of surgery. A p-value of less than 0.05 was considered statistically significant.

### **Results:**

Eighty-nine patients were enrolled in the study. Out of which fifty-four (60.7%) were females and the median (IQR) age of all the patients was 40 (30.5-48) years with no significant difference in median age between both the genders (37 vs 40.50,  $p=0.550$ , Table 1-2). Twenty-nine (33.6%) of the patients had formal schooling of 8 years or less followed by graduation 23 (25.1%) Table 1. Majority of the patients underwent general surgery ( $n=38$ ; 42.7%) followed by orthopaedic ( $n=22$ ; 24.7%) and urology ( $n=22$ , 24.7%) Table 1.

Thirty-six (40.4%) patients reported that they have been given general anaesthesia previously. Among these patients, majority ( $n=24$ ; 66.7%) were given general anaesthesia, 5 (13.9%) were given spinal anaesthesia and 7 (19.4%) were given both (Table 1). Moreover, 37 (41.6%) of the patients did not know that who gave them anaesthesia during surgery.

When asked about on anaesthesiologist's visit pre-surgery on arriving hospital, 60 (67.4%) replied affirmative, 2 (2.2%) replied in negative and 27 (30.3%) replied don't know Table 1. Majority of the patients responded positively and agreed to the questions 1) ability to ask questions during visit to pre-op clinic 2) ability of anaesthesiologist to answer questions in an understandable way 3) anaesthesiologist encouraged to ask questions 4) anaesthesiologist visit made you feel more calm and relaxed 5) satisfaction with the information provided by anaesthesiologist 6) did not feel pain during surgery 7) did not feel nausea or vomiting, cold, weakness and agitated post-surgery (Table 1). However, 36.0%, 36.0%, 48.3%, and 55.1% of the patients reported pain, shivering, sore throat and somnolence post-surgery respectively (Table 1).

Overall, 60.7% of the patients had total score of 58 or more and were labelled as satisfied with anaesthesiologist (Table 1).

Furthermore, there was no statistically significant difference in age and satisfaction score between both the genders (Table 2). In addition, no age difference was observed between patients who were satisfied with the anaesthesiologist and those were not satisfied with the anaesthesiologist (Table 2).

Furthermore, no significant association was observed between satisfaction status and age groups, gender, education and type of surgery (p=0.515, 1.000, 0.489 and 0.231 respectively Table 3).	n (%)
Table 1: Descriptive analysis	
Age	
Mean± SD	39.70±11.50
Median (IQR)	40(30.5-48)
Min -Max	18-63
Gender	
Male	35(39.3)
Female	54(60.7)
Qualification	
8 grade or less	29(33.6)
10 grade	17(19.1)
12 grade	12(13.5)
Graduate	23(25.1)
Any post-graduate degree	7(7.9)
Missing	1(1.1)
Type of surgery	
Urologic	22(24.7)
Orthopaedic	22(24.7)
General	38(42.7)
Otolaryngologic	7(7.9)
Have you been given general anaesthesia before	
Yes	36(40.4)
No	53(59.6)
Q6. What form of anaesthesia were you given before?	
General anaesthesia	24(66.7)
Spinal anaesthesia	5(13.9)
Both	7(19.4)
Don't Know	0(0)
Q7. Who gave you anaesthesia during surgery?	
Anaesthesiologist	52(58.4)
Surgeon	0(0)
I don't know	37(41.6)
Q8. After you arrived at the hospital, did the anaesthesiologist visit you before the surgery?	
Yes	60(67.4)
No	2(2.2)
Don't know	27(30.3)
Q9. Were you given something so you would not feel pain during surgery?	
Yes	40(44.9)
No	2(2.2)
Don't know	47(52.8)
Q10. Did you ask this anaesthesiologist any questions?	
Yes	28(31.5)

No	61(68.5)
Q11. During the visit to pre-op clinic you were able to ask questions you wanted?	
Disagree very much	2(2.2)
Disagree moderately	0(0)
Disagree slightly	5(5.6)
Agree slightly	18(20.2)
Agree moderately	24(27.0)
Agree very much	40(44.9)
Q12. The anaesthesiologist at the pre-op clinic able to answer all your questions in an understandable way?	
Disagree very much	3(3.4)
Disagree moderately	0(0)
Disagree slightly	4(4.5)
Agree slightly	15(16.9)
Agree moderately	16(18.0)
Agree very much	51(57.3)
Q13. This anaesthesiologist encouraged you to ask questions?	
Disagree very much	8(9.0)
Disagree moderately	0(0)
Disagree slightly	8(9.0)
Agree slightly	21(23.6)
Agree moderately	21(23.6)
Agree very much	31(34.8)
Q14. This anaesthesiologist answer your questions clearly?	
Disagree very much	2(2.2)
Disagree moderately	1(1.1)
Disagree slightly	1(1.1)
Agree slightly	9(10.1)
Agree moderately	18(20.2)
Agree very much	58(65.2)
Q15. Talking with this anaesthesiologist during this visit made you feel more calm and relaxed?	
Disagree very much	1(1.1)
Disagree moderately	0(0)
Disagree slightly	1(1.1)
Agree slightly	11(12.4)
Agree moderately	29(32.6)
Agree very much	47(52.8)
Q16. You were satisfied with the amount of information your anaesthesiologist gave you?	
Disagree very much	0(0)
Disagree moderately	1(1.1)
Disagree slightly	2(2.2)
Agree slightly	14(15.7)
Agree moderately	19(21.3)
Agree very much	53(59.6)
Q17. You felt satisfied with your anaesthetic care?	
Disagree very much	2(2.2)
Disagree moderately	1(1.1)
Disagree slightly	1(1.1)
Agree slightly	9(10.1)

Agree moderately	20(22.4)
Agree very much	56(62.9)
Q.18 You would want to have the same anaesthetic again?	
Disagree very much	1(1.1)
Disagree moderately	3(3.4)
Disagree slightly	1(1.1)
Agree slightly	11(12.4)
Agree moderately	28(31.5)
Agree very much	45(50.6)
Q19. You felt pain during the surgery?	
Disagree very much	74(83.1)
Disagree moderately	0(0)
Disagree slightly	9(10.1)
Agree slightly	4(4.5)
Agree moderately	2(2.2)
Agree very much	0(0)
Q20. You felt pain after the surgery?	
Disagree very much	42(47.2)
Disagree moderately	3(3.4)
Disagree slightly	5(5.6)
Agree slightly	9(10.1)
Agree moderately	18(20.2)
Agree very much	12(13.5)
Q21. After the surgery, you threw up or felt like throwing up?	
Disagree very much	57(64.0)
Disagree moderately	0(0)
Disagree slightly	5(5.6)
Agree slightly	5(5.6)
Agree moderately	14(15.7)
Agree very much	8(9.0)
Q22. After the surgery, you were too cold?	
Disagree very much	55(61.8)
Disagree moderately	1(1.1)
Disagree slightly	3(3.4)
Agree slightly	8(9.0)
Agree moderately	13(14.6)
Agree very much	9(10.1)
Q23.1. You did not feel nausea?	
Yes	62(70)
No	27(30)
Q23.2. You did not vomit?	
Yes	75(84.3)
No	14(15.7)
Q23.3 You did not feel pain?	
Yes	57(64.0)
No	32(36.0)
Q23.4. You did not recall anything related to surgery without pain?	
Yes	87(97.8)
No	2(2.2)
Q23.5. You were not shivering?	

Yes	57(64.0)
No	32(36.0)
Q23.6. You were not gagging on endotracheal tube?	
Yes	75(84.3)
No	14(15.7)
Q23.7. You did not have sore throat?	
Yes	46(51.7)
No	43(48.3)
Q23.8. You did not feel somnolence?	
Yes	40(44.9)
No	49(55.1)
Q23.9. You did not have residual weakness?	
Yes	81(91.0)
No	8(9.0)
Q23.10. You were not agitated?	
Yes	80(89.9)
No	9(10.1)
Score	
Satisfied	54(60.7)
Unsatisfied	35(39.3)

Table 2: Difference in age and PSA score between both the genders

		N	Mean±sd	Min-Max	Median(IQR)	P value
Age						
Gender	Male	35	38.8±10.9	22-60	37(30-48)	0.550†
	Female	54	40.28±12	18-63	40.50(31-48.50)	
Age						
Patient satisfaction categories	Satisfied	54	40.1±12.1	18-63	41(31-48)	0.653†
	Unsatisfied	35	39.03±10.6	22-58	39(30-50)	
Patient satisfaction score						
Gender	Male	35	56.88±4.9	43-63	58(55-60)	0.607‡
	Female	54	57.85±5.0	44-68	58(55-61)	

† Independent sample t test, ‡ Mann Whitney test U test

† Independent sample t test, ‡ Mann Whitney test U test

Table 3: Patient Characteristics

Table 3. Patient Characteristics				
	Gender			
	Malea N(%)	Femaleb N(%)	Total N(%)	P value
Age				
>=41	16(45.7)	27(50.0)	43(48.3)	0.631†
<=40	19(54.3)	27(50.0)	46(51.7)	



Total	35(100)	54(100)	89(100)	
Education				
8 grade or less	5(14.7)b	24(44.4)	29(33.0)	0.018*†
10 grade	6(17.6)	11(20.4)	17(19.3)	
12 grade	6(17.6)	6(11.1)	12(13.6)	
Graduate	12(35.3)	11(20.4)	23(26.1)	
Any post-graduate degree	5(14.7)	2(3.7)	7(8)	
Total	34(100)	54(100)	88(100)	
Type of surgery				
Urologic	16(45.7)b	6(11.1)	22(24.7)	0.001*†
Orthopaedic	9(25.7)	13(24.1)	22(24.7)	
General surgery	8(22.9)b	30(55.6)	38(42.7)	
Otolaryngological	2(5.7)	5(9.3)	7(7.9)	
Total	35(100)	54(100)	89(100)	
* P value <0.05, † Fischer exact test, I Pearson Chi square test				

Table 4: Association between patients' characteristics and satisfaction status

	Patient satisfaction			P value
	Satisfied N(%)	Unsatisfied N(%)	Total N(%)	
Age				
>=41	28(51.9)	15(42.9)	43(48.3)	0.515†
<=40	26(48.1)	20(57.1)	46(51.7)	
Total	54(100)	34(100)	89(100)	
Gender				
Male	21(38.9)	14(40.0)	35(39.3)	1.000†
Female	33(61.1)	21(60.0)	54(60.7)	
Total	54(100)	35(100)	89(100)	
Education				
8 grade or less	21(39.6)	8(22.9)	29(33.0)	0.489‡
10 grade	10(18.9)	7(20.0)	17(19.3)	
12 grade	6(11.3)	6(17.1)	12(13.6)	
Graduate	13(24.5)	10(28.6)	23(26.1)	
Any post-graduate degree	3(5.7)	4(11.4)	7(8.0)	
Total	53(100)	35(100)	88(100)	
Type of surgery				
Urologic	12(22.2)	10(28.6)	22(24.7)	0.231‡
Orthopaedic	14(25.9)	8(22.9)	22(24.7)	
General surgery	26(48.1)	12(34.3)	38(42.7)	
Otolaryngologic	2(3.7)	5(14.3)	7(7.9)	
Total	54(100)	35(100)	89(100)	
* P value <0.05, ‡ Fischer exact test,† Pearson Chi square test				

## Discussion

This study was carried out to assess patient satisfaction with anaesthesiologists in our setup. Out of the 89 participants included in this study, 54 patients (60.7%) were found to be satisfied with patients while 35 patients (39.3%) were labelled as dissatisfied.

A study done by Dr P Durieux et al. to compare the views of healthcare professionals and patients regarding compliance with standards of care concerning patient information in 2004 demonstrated that out of the 577 patients who participated in the study, 63.2% were of the opinion that they received clear information regarding their treatment procedures (35). Our study shows somewhat similar results with 59.6% of the patients being satisfied with the information that the anaesthesiologist gave.

Another study performed by Pinelopi Kouki et al. concluded that 96.3% of patients with general anaesthesia plus epidural analgesia or PCA would want to get the same pain management in the future, and 96.3% ranked pain management as good (31.1%) or excellent (65.2%). Among patients who received regional anaesthesia, 98% patients would like to be given the same pain treatment in future and 98% ranked pain management as good (25.5%) or excellent (72.5%). Among patients who received general anaesthesia alone or in combination with epidural anaesthesia, the satisfaction level had independent association with age ( $P = 0.043$ ) and communication with anaesthesiologist ( $P = 0.008$ ). Patients' desire to be given the same anaesthetic management in future was independently related to age ( $P = 0.001$ ) and communication with the anaesthesiologist ( $P = 0.001$ ) and negatively associated with sense of shivering ( $P = 0.002$ ). (36)

In 2010, a study was conducted to assess patient satisfaction with perioperative care among patients having orthopaedic surgery by Hatem A Jlala et al. Among the 100 patients who completed this study, 50% had received general anaesthesia and 50% had received regional anaesthesia. Overall, 86.7% were satisfied. However, a higher number of patients who received regional anaesthesia (91%) were more satisfied with the quantity and clarification of information regarding the anaesthetic technique than the patients who received general anaesthesia (77%). Among the undesirable anaesthesia outcomes, 46% of the patients who underwent regional anaesthesia complained of headache as compared to 12% of patients who underwent general anaesthesia. Among other frequently reported complains from both groups of patients was postoperative pain and thirst. The lesser mentioned undesirable outcomes were back pain, nausea, cold and hunger. The patients were specifically highly satisfied with the attitude of the health care staff towards their complains and queries (88.5%). The patients who received regional anaesthesia were more satisfied (96%) regarding the time interval from recovery to ward as compared to patients who received general anaesthesia (80%). When inquired about the fears and concerns about the different aspects of perioperative care, only 39 patients had fear of pain due to anaesthesia as compared to 68 patients having concerns over pain due to surgery. (37)

In contrast to the study described above, this study shows that the most frequently reported post-anaesthesia outcomes were somnolence (55.1%) and sore throat (48.3%) while postoperative pain (36%), shivering (36%) and nausea (30%) were less frequently reported.

P.M Whitty et al. studied patient satisfaction in patients who underwent general anaesthesia. The questions included in their questionnaire to assess patient satisfaction were based on the process of anaesthetic care. The responses of the participants revealed that 67% of them were very satisfied with the overall anaesthetic management while 28% were quite satisfied. Before the surgery, 91% of the participants said they were visited by the anaesthesiologists while 77% said that they were able to ask questions from their anaesthetist. A large number of participants (71%) reported that they were anesthetized by the same anaesthetist who visited them pre-operatively while 90% of them found the anaesthetist competent. Regarding the post-operative anaesthetic outcomes, 27% of the participants complained of pain in the recovery room but 97% of these participants agreed that they received prompt treatment when they required. The incidence of post-operative shivering was just 12% and there was no reported incidence of awareness. An important finding noted in this survey is that although the satisfaction level was high among the participants of the survey, there were few problems as well which were recognized such as prolonged pre-operative fasting time. 27% of the

patients reported that they had been without food for more than 12 hours preoperatively while 22% were without drink for more than 12 hours preoperatively.(38)

In contrast to the abovementioned study, this study reports a much lesser percentage of patients (67.4%) who were visited by the anaesthesiologist before surgery though 30.3% of the patient did not know if the anaesthesiologist visited them before surgery or not.

Another study done by Keep PJ and Jenkins JR revealed that the major concerns of participants regarding anaesthesia were of not waking up after anaesthesia (15%),breathing gas (15%),awareness during surgery (11%),fear of a painful injection (11%),fear of speaking something embarrassing on waking up from anaesthesia (9%) and seeing the surgical instruments (2%).5% of the participants were most concerned about the postoperative vomiting.

Regarding the post-operative anaesthetic outcomes that occurred, nausea and sore throat were the most frequently reported complains (28%) followed by vomiting (23%).A remarkable finding in this study was that out of 100 patients included in the study, only 65 patients were visited by the anaesthesiologist pre-operatively, still all of the 100 participants reported satisfaction with the anaesthesia services. This showed that perhaps this reported satisfaction was due to the fact that the patients did not want to seem ungrateful. Of these 65% patients that were seen by the anaesthesiologist pre- operatively,41% were of the opinion that the visit helped in allaying their anxiety and reassuring them while for 24% of the participants, the pre- operative visit made no difference. Among these 65% of the participants,23% were just interviewed in their preoperative visit while the rest had their physical examination done by the anaesthesiologist but there was no difference in their opinions regarding the reassurance caused by the preoperative visit.(39)

In contrast to the abovementioned study, this study shows a higher percentage of patients that were of the opinion that talking with the anaesthesiologist during the pre-op visit made them feel calmer and more relaxed.

The limitation of this study was that we did not include the patients undergoing day care surgeries in our sample population. Another limitation was that patients were interviewed 24 hours after that surgery so the chances of not recalling their anaesthesia experience accurately were present.

## **Conclusion**

This study demonstrated that a majority of patients were satisfied with the anaesthesia services and the care provided by anesthesiologists. Effective preoperative communication and reassurance played a key role in shaping positive patient experiences. However, the presence of postoperative discomfort and gaps in patient awareness highlight areas requiring further improvement. Enhancing postoperative symptom management, strengthening patient–anaesthesiologist interaction, and ensuring better education about anaesthesia care may contribute to higher satisfaction levels. Continued efforts to refine these aspects of service delivery are essential for improving overall patient outcomes and trust in anaesthesia services.

## **Acknowledgment**

Indus Hospital Research Center

## **References:**

1. Myles P, Williams D, Hendrata M, Anderson H, Weeks A. Patient satisfaction after anaesthesia and surgery: results of a prospective survey of 10,811 patients. *British journal of anaesthesia*. 2000;84(1):6-10.
2. Eriksen LR. Patient satisfaction with nursing care: concept clarification. *Journal of Nursing Measurement*. 1995;3(1):59-76.
3. Vuori H. Patient satisfaction—does it matter? *International Journal for Quality in Health Care*. 1991;3(3):183-9.
4. Fung D, Cohen MM. Measuring patient satisfaction with anesthesia care: a review of current methodology. *Anesthesia & Analgesia*. 1998;87(5):1089-98.

5. Barnett SF, Alagar RK, Grocott MP, Giannaris S, Dick JR, Moonesinghe SR. Patient-satisfaction measures in anaesthesia: a qualitative systematic review. *The Journal of the American Society of Anesthesiologists*. 2013;119(2):452-78.
6. Forkin KT, Dunn LK, Kaperak CJ, Potter JF, Bechtel AJ, Kleiman AM, et al. Influence of Sex and Body Language on Patient Perceptions of Anesthesiologists. *Anesthesiology: The Journal of the American Society of Anesthesiologists*. 2019;130(2):314-21.
7. Lin C, Prozesky J, Martin DE, Cherian VT. Patients' Expectations of Their Anesthesiologists. *The American journal of managed care*. 2019;25(10):e304-e9.
8. Heidegger T, Saal D, Nübling M. Patient satisfaction with anaesthesia—Part 1: Satisfaction as part of outcome—and what satisfies patients. *Anaesthesia*. 2013;68(11):1165-72.
9. Coulter A, Collins A. Making shared decision-making a reality. London: King's Fund. 2011. 88
10. Vetter TR, Ivankova NV, Pittet J-F. Patient Satisfaction with Anesthesia: Beauty Is in the Eye of the Consumer. *Anesthesiology: The Journal of the American Society of Anesthesiologists*. 2013;119(2):245-7.
11. Harnett MJ, Correll DJ, Hurwitz S, Bader AM, Hepner DL. Improving efficiency and patient satisfaction in a tertiary teaching hospital preoperative clinic. *Anesthesiology: The Journal of the American Society of Anesthesiologists*. 2010;112(1):66-72.
12. Gebremedhn EG, Nagaratnam V. Assessment of patient satisfaction with the preoperative anesthetic evaluation. *Patient Related Outcome Measures*. 2014;5:105.
13. Vyhunthan G, de Silva N. Audit to evaluate preoperative visit to patient by anaesthetist. *Sri Lankan Journal of Anaesthesiology*. 2012;20(2).
14. Klopfenstein CE, Forster A, Van Gessel E. Anesthetic assessment in an outpatient consultation clinic reduces preoperative anxiety. *Canadian Journal of Anesthesia*. 2000;47(6):511.
15. Macario A, Weinger M, Carney S, Kim A. Which clinical anesthesia outcomes are important to avoid? The perspective of patients. *Anesthesia & Analgesia*. 1999;89(3):652.
16. Benn J, Arnold G, Wei I, Riley C, Aleva F. Using quality indicators in anaesthesia: feeding back data to improve care. *British journal of anaesthesia*. 2012;109(1):80-91.
17. Shevde K, Panagopoulos G. A survey of 800 patients' knowledge, attitudes, and concerns regarding anesthesia. *Anesthesia and analgesia*. 1991;73(2):190-8.
18. Kopp VJ, Shafer A. Anesthesiologists and perioperative communication. *Anesthesiology: The Journal of the American Society of Anesthesiologists*. 2000;93(2):548-55.
19. Bauer M, Böhrer H, Aichele G, Bach A, Martin E. Measuring patient satisfaction with anaesthesia: perioperative questionnaire versus standardised face-to-face interview. *Acta Anaesthesiologica Scandinavica*. 2001;45(1):65-72. 89
20. Moura AC, Ferreira MA, Barbosa J, Mourão J. Patient satisfaction with anesthesia care in a general hospital. *Acta medica portuguesa*. 2014;27(1):33-41.
21. Askitopoulou H, Ramoutsaki IA, Konsolaki E. Analgesia and anesthesia: etymology and literary history of related Greek words. *Anesthesia & Analgesia*. 2000;91(2):486-91.
22. Robinson DH, Toledo AH. Historical development of modern anesthesia. *Journal of Investigative Surgery*. 2012;25(3):141-9.
23. Antognini J, Carstens E. In vivo characterization of clinical anaesthesia and its components. *British journal of anaesthesia*. 2002;89(1):156-66.
24. Ash HL. Anesthesia's dental heritage (William Thomas Green Morton). *Anesthesia progress*. 1985;32(1):25.
25. Villars PS, Kanusky RJT, Dougherty TB. GENERAL ANESTHESIA. *AANA journal*. 2004;72(3):197.
26. Urban B. Current assessment of targets and theories of anaesthesia. *British journal of anaesthesia*. 2002;89(1):167-83.
27. Kapoor MC. Empowering anesthesiologists. *Journal of anaesthesiology, clinical pharmacology*. 2015;31(3):291.

28. Bajwa SJS, Kaur J. Risk and safety concerns in anesthesiology practice: The present perspective. *Anesthesia, essays and researches*. 2012;6(1):14.
29. Helal SM, Rady AA, Aaid A. Occupational hazards to anaesthetists and their prevention. *J Am Sci*. 2014;10(11):31-6.
30. Hariharan S, Merritt-Charles L, Chen D. Patient perception of the role of anesthesiologists: a perspective from the Caribbean. *Journal of clinical anesthesia*. 2006;18(7):504-9.
31. Lee JJ, Lee NH, Park CM, Hong SJ, Kong M-H, Lee KH, et al. Public awareness about the specialty of anesthesiology and the role of anesthesiologists: a national survey. *Korean journal of anesthesiology*. 2014;66(1):12. 90
32. Garcia-Marcinkiewicz AG, Long TR, Danielson DR, Rose SH. Health literacy and anesthesia: patients' knowledge of anesthesiologist roles and information desired in the preoperative visit. *Journal of clinical anesthesia*. 2014;26(5):375-82.
33. Leite F, Silva LMD, Biancolin SE, Dias A, Castiglia YMM. Patient perceptions about anesthesia and anesthesiologists before and after surgical procedures. *Sao Paulo Medical Journal*. 2011;129(4):224-9.
34. Sitzia J, Wood N. Patient satisfaction: a review of issues and concepts. *Social science & medicine*. 1997;45(12):1829-43.
35. Durieux P, Bissery A, Dubois S, Gasquet I, Coste J. Comparison of health care professionals' self-assessments of standards of care and patients' opinions on the care they received in hospital: observational study. *BMJ Quality & Safety*. 2004;13(3):198-202.