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## ORIGINAL RESEARCH

# Patients' Perception of Anaesthesia, the Anaesthetist and Experience of Anaesthesia Care

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## Abstract

**Background:** The anaesthetist is a health care professional, but misconceptions about her identity and roles influence patient satisfaction, a unique clinical endpoint.

**Objective:** To determine patients' perception of the anaesthetist and their satisfaction with perioperative anaesthesia care.

**Methods:** This prospective study recruited adult patients scheduled for elective surgeries in a Nigerian tertiary health facility. A structured questionnaire was administered during the pre-anaesthetic visit, before the administration of anaesthesia and 24 hours post-operative to elicit information on socio-demographics, type of surgery, patient's perception of anaesthetist as a specialist, previous and index anaesthesia experience, and patient's satisfaction from the perioperative anaesthesia care.

**Results:** One hundred (23 males and 77 females) adult patients with a mean age of 42.17±12.87 years were recruited for elective surgeries in various surgical specialities. Seventy-eight per cent were familiar with the roles of anaesthetists, but those with previous exposure to anaesthesia and a higher educational status showed better knowledge. Most participants (89%) realised that the anaesthetist was a qualified doctor. Still, when probed further, it was discovered that only 42% could anticipate that the anaesthetist oversaw the operating theatre. A majority (73%) were unaware that the anaesthetist works outside the operating theatre. The participants were very satisfied (68%) or satisfied (32%) with the post-operative assessment of perioperative anaesthesia care.

**Conclusion:** Most patients scheduled for elective surgeries were familiar with anaesthetist roles and identity but were unaware of her role outside the operating theatre.

**Keywords:** Anaesthesia care, Anaesthetist, Elective surgery, Patients' satisfaction, Theatre.

## Introduction

The domain of anaesthesia has now extended far beyond the exclusive remit of the operating theatre. Anaesthetists are at the forefront of pain

management and have been trained to choose the anaesthetic technique that best suits the surgery and patient's needs. Good pain control prior, during and after surgery is very important to prevent adverse outcomes such as tachycardia, hypertension, myocardial ischaemia, myocardial

infarction, reduction in alveolar ventilation and vital capacity, pneumonia, poor wound healing, transition to chronic pain and insomnia.<sup>[1-3]</sup> Anaesthetists are multi-skilled physicians with a thorough knowledge of internal medicine, physiology, pharmacology, pain management and surgical procedures. While the primary purpose and concern of the anaesthetist is to ensure patients' safety and stability before, during and after surgery, their roles have been expanded to encompass such areas as the management of acute and chronic pain, intensive care medicine and emergency management of critically ill and trauma patients.<sup>[4,5]</sup>

However, despite these significant roles of anaesthetists in hospital activities, many patients are unaware of the extensive duties of an anaesthetist and the central role they often play in their management.<sup>[6,7]</sup> The treatment provided by anaesthetists is usually intensive, of limited duration and frequently unseen by the patient who benefits from their care. Such circumstances may adversely affect the relationship between anaesthetised patients (especially those under general anaesthesia) and their anaesthetists, as well as facilitate the potential development of inaccurate impressions of anaesthesia overall. Some of these misconceptions concerning anaesthetic practice could be improved by establishing a pre-anaesthetic clinic (currently lacking in our health care facility), as demonstrated by Otu *et al.*<sup>[8]</sup> and Yakubu.<sup>[9]</sup> The findings from the study by Otu *et al.*<sup>[8]</sup> show that 96.1% of the respondents agreed that a pre-anaesthesia clinic would promote the image of anaesthesia as a speciality, and 94.9% opined that it would improve the patient's perception of the anaesthetist because poor knowledge and perception of the anaesthesia speciality and the anaesthetist among patients have been identified as one of the factors challenging its development, despite the crucial role of the anaesthetists in health care delivery.

Studies have shown that surgical patients scheduled for surgery show insufficient knowledge about anaesthesia practice and the role of anaesthetists outside the operating theatre suites.<sup>[10-13]</sup> This study assessed the perception and understanding of anaesthesia and anaesthetists among patients perioperatively, and there are few studies assessing this concept perioperatively or postoperatively. Therefore, this study aimed to evaluate patients' views on anaesthesia, the roles of anaesthetists and levels of satisfaction derived from anaesthesia care rendered pre, intra and postoperatively.

## Methods

Following ethical approval by the institution's Health Research Ethics Committee, data were collected in the Modular theatre, surgical wards and the obstetrics and gynaecological wards of the Olabisi Onabanjo University Teaching Hospital (OOUTH) Sagamu, Ogun State, Nigeria, over six months. Adult patients aged 18 years and above who were scheduled for elective surgery under general or regional anaesthesia or in various specialities such as general surgery, orthopaedics, urology, ophthalmology, otolaryngology and gynaecology and obstetrics were recruited for the study. The inclusion criteria included patients classified as ASA (American Society of Anaesthesiologists of Physical Health Status) I, II, III who remain fully conscious, alert and well oriented in time, place and person before surgery, 24-hour post-operative period and beyond. Exclusion criteria included psychiatric disorders, physical inability to grant an interview, intra-operative critical incidents and refusal to participate in the study. Those who had their surgical procedures performed under local anaesthesia (LA) only were also excluded.

Before the study, the sample size was estimated using the standard formula for descriptive study

( $n = z^2 pq/d^2$ ) with 95% of previous study participants who identified the anaesthetist as a doctor. [14] It was estimated that 81 samples would power the study.

Informed consent for this study was obtained after a full explanation of what the study entailed, and ethical consideration was ensured. The main study instrument was a questionnaire modelled after the previously relevant published articles. [4,10,15,16] The questionnaire was written in English and administered through face-to-face interviews in English or Yoruba, depending on the patient's language preference. The questionnaire had been standardised by translation to Yoruba language. The questionnaire consisted of three sections with 59 questions. Section one was administered during the pre-operative period and consisted of inquiries related to demographics, history of previous anaesthesia experience, patients' perception of roles of anaesthetists and perception of anaesthesia and the desire to know. Section two was administered intraoperatively before the administration of anaesthesia. Section three assessed the patients' level of satisfaction postoperatively in the recovery room and 24 hours post-operative period on the ward. The questionnaire was administered: (a) after the pre-anaesthetic visit, (b) in the operating suite before administration of anaesthesia, (c) in the recovery room and (d) at twenty-four hours post-operative period (See Appendix I).

In Section One, the ten questions under patients' perception of the role of the anaesthetists were used to assess knowledge. Every correct answer was awarded one mark, while a wrong answer was awarded zero giving a maximum obtainable score of ten. Scores from 5 to 10 were categorised as good knowledge and 0 to 4 as poor knowledge. The research assistant, a senior registrar in the Anaesthesia Department, who had been specifically trained to administer the questionnaire, collected the data. At the end of the surgery, the patient was asked by a trained

standby Resident Anaesthetist (who had not been part of the team that administered the anaesthesia) in the recovery room and during the 24-hour post-operative period to subjectively rank their level of satisfaction with the anaesthesia care rendered to them on a 5-point scale (very dissatisfied, not satisfied, undecided, satisfied and very satisfied).

#### *Data analysis*

The data obtained were analysed using the Statistical Package for the Social Sciences (SPSS) version 20.0 Chicago, IL, USA. The study results were written in prose and presented as tables and figures. The Chi-Square test was used to determine the associations between knowledge, perception of anaesthesia and other variables.

## **Result**

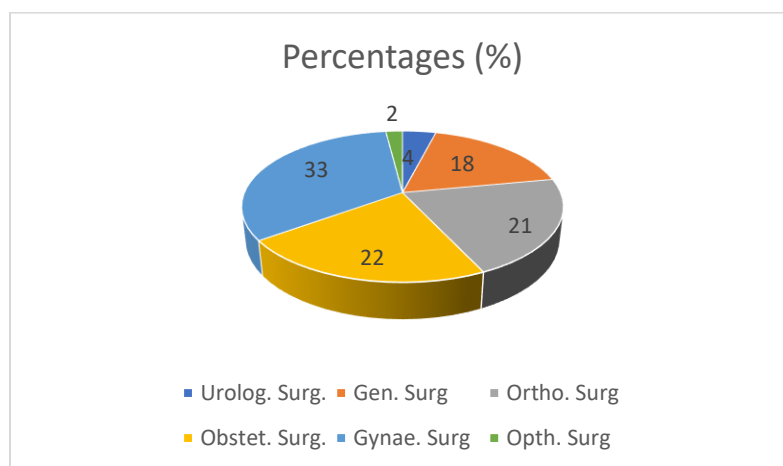
One hundred adult patients were recruited for elective surgeries in various surgical specialities. Twenty-three males and 77 females were recruited, giving a male-to-female ratio of 1:17. The mean age was  $42.17 \pm 12.87$  years. Table I shows the socio-demographic parameters of the respondents, while Figure 1 illustrates the various surgical specialities from which the respondents were drawn.

Fifty-two per cent of the participants had no previous anaesthesia experience. Of the forty-eight per cent who had previous anaesthesia experience, 45% recalled that they were anaesthetised by anaesthetists. In contrast, the remaining three per cent could not remember who administered the anaesthesia to them. However, all the 48 respondents recognised the types of anaesthesia administered to them: 23 reported previous exposure to regional anaesthesia, 17 had general anaesthesia, 7 had local anaesthesia, and one had conscious sedation. Thirty-seven per cent had two earlier

surgeries, while eleven per cent had only one previous anaesthesia experience.

**Table I: Demographic parameters of respondents.**

<i>Clinical Parameter</i>	<i>Frequency (%)</i>
<b>Age Group (Years)</b>	
20-29	13 (13.0)
30-39	37 (37.0)
40-49	25 (25.0)
50-59	12 (12.0)
60-69	10 (10.0)
70-79	3 (3.0)
<b>Gender</b>	
Male	23 (23.0)
Female	27 (77.0)
<b>Tribes</b>	
Yoruba	92 (92.0)
Ibo	5 (5.0)
Hausa	2 (2.0)
Non- Nigerian	1 (1.0)
<b>Highest Educational Level</b>	
None	2 (2.0)
Primary School	6 (6.0)
Secondary school	37 (37.0)
National Certificate Education	4 (4.0)
Ordinary National Diploma	3 (3.0)
Higher National Diploma	12 (12.0)
First degree	34 (34.0)
Postgraduate	2 (2.0)



**Figure 1: The various surgical specialities from which the respondents were drawn**

Seventy-eight per cent of the participants claimed that they were familiar with the roles of anaesthetists. Still, when probed further, it was discovered that only fifty-two per cent of the respondents knew that the anaesthetists were in charge of the operating theatre, while thirty-three did not know who was in charge of the operating theatre. Indeed, eight per cent and seven per cent believed the surgeon and the perioperative nurse, respectively, oversee the theatre.

Most (89%) respondents realised that the anaesthetist is a qualified doctor. Seventy-seven per cent of the respondents knew that during surgery, the anaesthetist ensures the well-being of the patient, while 3% and 4% believed that the perioperative nurse and the surgeon, respectively, ensure the well-being of the patient under anaesthesia. Sixteen per cent of the respondents had no idea who ensures the patient's well-being. Most (77%) respondents agreed that the anaesthetist monitors the vital signs intraoperatively, and 70% affirmed that the recovery room nurse looks after them in the theatre immediately after the surgery.

Overall, 70% of the respondents demonstrated a good knowledge of the roles of the anaesthetist, while 15% showed poor knowledge and 15% had no knowledge about the role of the anaesthetist. Most of the respondents (81%) were unaware of the other functions of anaesthetists outside the operating theatre. Only 19% of the respondents showed good knowledge of the roles of anaesthetists outside the operating theatre. Some of the respondents believed that the anaesthetist could also work in the Intensive Care Unit (10%), Labour ward theatre (2%) and the Pain Clinic (7%). Those with previous exposure to anaesthesia (95.8%) and a higher level of educational status (89.1%) showed a better knowledge of the roles of the anaesthetist.

The majority (64%) believed that the anaesthesia speciality is not limited to only one gender but

both genders. Many (91%) of them would like to know their anaesthetist during their preparation for surgery, and some (85%) would like to choose their anaesthetist if required. Eighty-two per cent were familiar with the word anaesthesia, while 98% were willing to have more information.

Table II shows socio-demographic and clinical variables related to the respondents' knowledge about anaesthesia. It was only the level of education that influenced knowledge about anaesthesia. The respondents with tertiary education had significantly higher knowledge about anaesthesia than those with secondary or lower educational levels (Mann-Whitney U = 894.5; p = 0.015). Gender, age, type of surgery or ASA level did not influence the participants' knowledge about anaesthesia.

All the patients had pre-operative anaesthetic evaluation before the surgery. Ninety-four per cent of the patients reported that the anaesthetist had adequate time with them during pre-anaesthesia evaluation. Ninety-seven per cent believed they had a good sleep before the day of surgery and that their fears and anxiety about the surgery and anaesthesia were well allayed. During the immediate post-operative period, in the recovery room, patients' satisfaction with anaesthesia care showed that fifty-six per cent were very satisfied, thirty-nine per cent were satisfied, and five per cent were undecided. All five patients that were undecided about the anaesthesia care experienced were drowsy and did not respond verbally during the immediate post-operative period in the recovery room. Still, the 24-hours post-operative assessment on the ward showed that 68 per cent were very satisfied, and 32 per cent were satisfied. None of them was dissatisfied with their experience in anaesthesia care. Sixty-two per cent reported that the anaesthetist who visited them before surgery also returned for a post-operative visit.



In Table III, all the respondents believed that the anaesthetist played an important role in perioperative care. The most frequent reason for

seeking a revisit by the anaesthetist was to show appreciation.

**Table II: Socio-demographic and clinical differences in relation to knowledge scores**

Variable	n	Mean Rank	Knowledge Median (IQR)	Statistics U/H	p-value
<b>Gender</b>					
Male	23	55.46	7.00 (6.00 – 8.00)	771.5	0.341
Female	77	49.02	7.00 (5.00 – 8.00)		
<b>Education level</b>					
≤secondary	45	42.88	7.00 (5.00 – 7.00)	894.5	0.015
Tertiary	55	56.74	7.00 (6.00 – 8.00)		
<b>Age (year)</b>					
20-49	75	51.25	7.00 (6.00 – 8.00)	881.0	0.646
≥50ye	25	48.24	7.00 (4.50 – 8.00)		
<b>Type of surgery</b>					
Major	88	51.17	7.00 (6.00 – 8.00)	469.0	0.523
Intermediate	12	45.58	6.00 (4.50 – 8.50)		
<b>ASA level</b>					
ASA 1	40	44.93	6.50 (5.00 – 7.75)	2.638	0.267
ASA II	50	54.66	7.00 (6.00 – 8.00)		
ASA III	10	52.00	7.00 (3.75 – 8.50)		

U: Mann-Whitney U test; H: Kruskal-Wallis' test

**Table III: Patients' best responses on reasons for preferring anaesthetists to revisit them on the ward during the post-operative period**

Responses	Percentages
1. I want follow-up from the anaesthetist for early detection of unwanted effects of the anaesthetic technique/drug	2
2. I want to enjoy good pain control from the anaesthetist	4
3. To ask some questions on other areas of concern	2
4. To appreciate them and say, 'thank you.'	92

## Discussion

This study demonstrated good knowledge of anaesthesia and the roles of anaesthetists among surgical patients, probably because many (55%) of the patients recruited for this study were educated up to the tertiary level. Similarly, nearly half (48%) had previous anaesthesia experience and could remember their types of anaesthesia.

Furthermore, all the patients were exposed to routine pre-anaesthetic review before administering the questionnaire. The study of Eyelade *et al.*<sup>[17]</sup> reported that patients with previous exposure to surgery and anaesthesia and those with a high level of education gave a more accurate perception of the anaesthetist as a specialist, thus corroborating this finding in the present study. However, this is in contrast to the result observed in the study by Ige *et al.*<sup>[10]</sup> which

reported poor knowledge of the speciality of anaesthesia despite exposure to routine pre-anaesthetic review. However, most of the respondents in that study (65.2%) had no knowledge of anaesthesia before their current admission.<sup>[10]</sup> The survey report by Onotu *et al.*<sup>[5]</sup> also supported the finding in the present study, as 92.9% of their respondents knew that the anaesthetist provided anaesthesia, and a significant number of their respondents (65.2%) had a higher degree of education.

The level of education was statistically significantly related to a higher knowledge score, thus highlighting that these patients know about the medical education of anaesthetists. This might explain why individuals with better intellectual levels have higher information-seeking tendencies and understanding. Education was the only variable of all the socio-demographic and clinical variables in the present study that was significantly associated with knowledge about the anaesthetist and anaesthesia. On the other hand, gender, age, type of surgery or ASA level were unrelated to the respondents' knowledge about anaesthesia.

The observed good knowledge of anaesthesia and the role of anaesthetists in the present study could also be due attributed to the rise in public awareness about the professional identity of the anaesthetist, given the ease of access to information through the internet, the various social media and information dissemination during celebrations such as the World Anaesthesia Day as well as the advancement in science and technology in health care witnessed over the past few years.<sup>[6,16]</sup>

Some of the objectives of pre-anaesthetic visits demonstrated in the study by Dhakre *et al.*<sup>[18]</sup> included the need to improve the physician-patient relationship, elucidate doubts regarding anaesthesia, ease fears and anxiety and orientate patients regarding the planned anaesthesia

techniques. This study affirms the importance of pre-anaesthetic evaluation, especially in elective surgeries, in that all the patients had pre-anaesthetic evaluation before the surgery. Most patients reported that the anaesthetist spent adequate time with them during pre-anaesthesia evaluation. Almost all also reported having a good sleep before the day of surgery and that their fears and anxiety about the surgery and anaesthesia were well allayed.

However, this study showed a significant deficiency of knowledge about the role of anaesthetists outside the operating theatre. This may suggest the need to provide sufficient information by the anaesthetist on resuscitation, intensive care, and acute and chronic pain management to all surgical patients. This may help improve knowledge and dispel misconceptions surrounding anaesthesia and surgery in the country. Interestingly, during the pre-anaesthetic visit, 98% of the respondents in this study desired more information about the types of anaesthesia to be administered to them. Therefore, regular provision of informative cartoon brochures on anaesthesia and anaesthetist roles to surgical patients at the out-patient clinic, pre-anaesthesia clinic and periodic surveys on this topic every 5 to 10 years may be helpful to gather feedback.

Intra-operatively, anaesthesia management has improved tremendously with the improvement in surgery. Anaesthesia is now the leading medical speciality in addressing patient safety issues.<sup>[11]</sup> During recovery on the ward, all the patients in this study affirmed the importance of the role the anaesthetists played, probably because those who had general anaesthesia in the index surgery have realised the quality and safety of the process of anaesthesia in making them fall into a deep sleep and able to wake them up at the end of the surgery, almost pain-free. Those who had regional anaesthesia were amazed that they could remain awake throughout the surgery and yet remain pain-free,



even though some detest the inability to raise their leg(s) throughout the surgery and for a few hours after the procedure. It could be because the anaesthetist was the only person they saw close to them when they were about to sleep (for those who received general anaesthesia) and the first person they saw when they woke up. Those who received regional anaesthesia could ascertain how the anaesthetist had been caring for them by their presence throughout the surgery. Furthermore, it could be that they have realised that without improvement in intraoperative anaesthesia, surgery could not have been an easy task.

Despite the use of varied instruments of satisfaction assessment perioperatively, the results of the present study are in tandem with the findings in previous studies, which also reported high satisfaction rates. [19,20] Ambulkar *et al.*[20] reported a 96% satisfaction rate of interaction with the anaesthetists during the perioperative period. The findings of Andemeskel *et al.*[19] showed that the overall satisfaction score was 68.8%, with 87.5% less fear and concern, 75% staff-patient relationship satisfaction score and least (45%) satisfaction with information provision. The high level of satisfaction with anaesthesia perioperatively may account for the high rating of the roles of anaesthetists as important by all the participants.

#### Limitation

Patient satisfaction after general anaesthesia was not compared with other types of anaesthesia techniques. Therefore, further studies and evaluations are desired to address this gap. Secondly, this study is from a single centre; hence, the generalizability of the findings to the whole population is limited.

#### Conclusion

The study shows that most surgical patients know that anaesthesia is administered by doctors and would want to know their anaesthetist, probably because they are more learned. However, few knew that anaesthetists also had other jobs outside the operating theatre. Many patients were satisfied with their anaesthetic care experience, even though they reported low post-operative visit turn-out by the anaesthetist. The anaesthetists should visit patients postoperatively more frequently to enhance care outcomes and awareness.

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**Authors' Contributions:** EEA conceived and designed the study and did literature review, and SRO did data collection while EEA and FMO did data analysis. All the authors participated in data interpretation, drafted the manuscript, revised the manuscript for sound intellectual content and approved the final version of the manuscript.

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#### References

1. Ushiroda J, Inoue S, Tanaka Y, Kawaguchi M. The effects of provision of anesthesia on one-year mortality in patients with severe complications. *Middle East J Anaesthesiol* 2014; 22: 597-602.
2. Eisenach JC, Brennan TJ. Pain after surgery. *Pain* 2018; 159: 1010-1011. <https://doi.org/10.1097/j.pain.0000000000001223>
3. Kainzwaldner V, Rachinger-Adam B, Mioc-Curic T, Mioc-Curic T, Wöhrle T, Hinske LC, *et al.* [Quality of post-operative pain therapy: evaluation of an established anesthesiology acute pain service]. *Anaesthesist* 2013; 62:

- 453-459. <https://doi.org/10.1007/s00101-013-2177-7>
4. Kadri IA, Haider G, Memon I, Memon W. Awareness of patients regarding anesthesia; attitude towards basic types of anesthesia techniques. *Profess Med J* 2014; 21: 782-787.
  5. Onutu AH, Rus C, Acalovschi I. The public perception of the anaesthesiologist in Romania: a survey. *Rom J Anaesth Intensive Care* 2017; 24: 21-28. <https://doi.org/10.21454/rjaic.7518.241.onu>
  6. Lee JJ, Lee NH, Park CM, Hong SJ, Kong MH, Lee KH, *et al.* Public awareness about the specialty of anesthesiology and the role of anesthesiologists: a national survey. *Korean J Anesthesiol* 2014; 66: 12-17. <https://doi.org/10.4097/kjae.2014.66.1.12>
  7. De Oliveira KF, Clivatti J, Munechika M, Falcão LF dos R. What do patients know about the work of anesthesiologists? *Rev Bras Anesthesiol* 2011; 61: 720-727. [https://doi.org/10.1016/S0034-7094\(11\)70081-2](https://doi.org/10.1016/S0034-7094(11)70081-2)
  8. Otu E, Clement I. The role of pre-anaesthesia clinic in modern anaesthesia practice. *Afr J Anaesth Intensive Care*. 2020; 20: 8-12.
  9. Yakubu SY. Could preanesthesia assessment clinics be of benefit in modern anaesthetic practice in Nigeria? *Sub-Saharan Afr J Med* 2018; 5: 1-5. [https://doi.org/10.4103/ssajm.ssajm\\_6\\_17](https://doi.org/10.4103/ssajm.ssajm_6_17)
  10. Ige OA, Oyedepo OO, Bolaji BO, Adewunmi AM, Abe OO. Perception of anaesthesia and the anaesthetist among adult surgical patients in a tertiary facility in Nigeria. *Sierra Leone J Biomed Res* 2016; 8: 12-18. <https://doi.org/10.4314/sljbr.v8i1.3>
  11. Bataineh AM, Qudaisat IY, El-Radaideh K, Alzoubi RA, Abu-Shehab MI. Patient's perception of the practice of anaesthesia in a teaching hospital in Northern Jordan: A survey. *BMC Anesthesiol* 2020; 20: 276. <https://doi.org/10.1186/s12871-020-01193-6>
  12. Djagbletey R, Aryee G, Essuman R, Ganu V, Darkwa EO, Owoo C, *et al.* Patients' knowledge and perception of anaesthesia and the anaesthetist at a tertiary health care facility in Ghana. *South Afr J Anaesth Analg* 2017; 23: 11-16. <https://doi.org/10.1080/22201181.2017.1281518>
  13. Suglo JN, Evans C. Factors influencing self-management in relation to type 2 diabetes in Africa: A qualitative systematic review. *PLoS One* 2020; 15. <https://doi.org/10.1371/journal.pone.0240938>
  14. Tanser SJ, Birt DJ. Who is watching over me? -was the public's perception of the anaesthetist changed by National Anaesthesia Day? *J R Nav Med Serv* 2000; 86: 134-141.
  15. Khara BN, Rupera KB, Gondalia KR, Kamat HV. Knowledge about Anesthesia and Perception about Anesthesiologists among Patients at a Rural Tertiary Care Hospital: A Cross-Sectional Survey. *Nat J Med Res* 2013; 3: 371-373.
  16. Imran M, Khan FA. Change In Patient's Perception And Knowledge Regarding Anaesthetic Practice After A Preoperative Anaesthesia Clinic Visit. *The Intern J Anesthesiol* 2012; 30. Accessed 08 December 2021. <http://ispub.com/IJA/30/3/14303>
  17. Eyelade O, Akinyemi J, Adewole I. Patients' perception and knowledge of anaesthesia and anaesthetists – a questionnaire survey. *South Afr J Anaesth Analg* 2010; 16: 28-31. <https://doi.org/10.1080/22201173.2010.10872695>
  18. Dhakre VW, Nanavati AJ, Shakil M, Nagral SS. Pre-anaesthetic checkup In India: A review. *Surg Pract Sci* 2020; 1: 100005. <https://doi.org/10.1016/j.sipas.2020.100005>

19. Andemeskel YM, Elsholz T, Gebreyohannes G, Tesfamariam EH. Patient satisfaction with perioperative anesthesia care and associated factors at two National Referral Hospitals: a cross-sectional study in Eritrea. BMC Health Serv Res 2019; 19: 669. <https://doi.org/10.1186/s12913-019-4499-x>

20. Ambulkar R, Patel A, Patil S, Savarkar S. Patient satisfaction with anaesthesia services in a tertiary care cancer centre. (SAY study). J Anaesthesiol Clin Pharmacol 2022; 38: 111-117. [https://doi.org/10.4103/joacp.JOACP\\_187\\_20](https://doi.org/10.4103/joacp.JOACP_187_20)

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**APPENDIX I**

**QUESTIONNAIRE**

PATIENTS' PERCEPTION OF ANAESTHESIA, THE ANAESTHETIST AND EXPERIENCE OF ANAESTHETIC CARE.

Serial no: ..... Hospital no: ..... Date: ..... ASA Grading: .....  
Surgical speciality: .....  
Type of Surgery: .....  
Indication for the surgery: .....  
Surgery performed: .....

Section 1: Pre-operative period

**A. Demographic data**

1. Age in years: .....
2. Gender: (1) male ( ) (2) Female ( )
3. Tribe: (1) Yoruba ( ) (2) Ibo ( ) (3) Hausa ( ) (4) Non-Nigerian ( )
4. Educational level: (1) None ( ) (2) Primary school ( ) (3) Secondary school ( ) (4) Undergraduate ( ) (5) National Certificate Education ( ) (6) Ordinary National Diploma ( ) (7) Higher National Diploma ( ) (8) University graduate (9) Postgraduate ( )
5. Occupation: .....

**B. History related to previous anaesthesia experience**

6. Have you had any exposure to anaesthesia before? (1) Yes ( ) (2) No ( )
7. If you have had an operation under anaesthesia before, do you know who gave you the anaesthesia? (1) Yes ( ) (2) No ( )
8. What type of anaesthesia have you experienced before? (1) General ( ) (2) Regional ( ) (3) Local ( ) (4) block ( ) (5) Conscious sedation ( )
9. Number of times of previous experience of general anaesthesia? (1) 1 ( ) (2) 2 ( ) (3) more than 2 ( ) (4) None ( )
10. Number of times of previous experience of regional anaesthesia? (1) 1 ( ) (2) 2 ( ) (3) more than 2 ( ) (4) None ( )

**C. Patient's Perception of Roles of Anaesthetists**

11. Are you familiar with the word anaesthetist? (1) Yes ( ) (2) No ( )
12. Who is in charge of operating theatre? (1) Anaesthetist ( ) (2) Perioperative Nurse ( ) (3) Surgeon ( ) (4) Intensivist ( ) (5) I don't know ( )
13. Is an anaesthetist a qualified doctor? (1) Yes ( ) (2) No ( )
14. During operation, who ensures the well-being of the patient? (1) Anaesthetist ( ) (2) Perioperative nurse ( ) (3) Surgeon ( ) (4) Perioperative attendant ( ) (5) Anaesthetist technician ( ) (6) I don't know ( )
15. During operation, once the patient is sleeping, what does the anaesthetist do? (1) Monitor patients vital signs closely ( ) (2) eating and drinking ( ) (3) I don't know ( )
16. Who looks after the patient immediately after anaesthesia? (1) Recovery room nurse ( ) (2) Anaesthetist ( ) (3) Ward nurse ( )
17. If the anaesthetist stays with the patient during the operation, what do they do?

- (1) Give patient pain relief drugs ( ) (2) monitor blood loss ( ) (3) give patient sleeping drugs ( ) (4) Monitor patients 'vital signs ( )  
 (5) give the surgical instrument to the surgeon ( ) (6) I don't know ( )

18. Do Anaesthetists have any role outside the operating theatre? (1) Yes ( ) (2) No ( )  
 (3) I don't know ( )

19. If anaesthetists have a role outside the operating room, in which area are they important? (1) Intensive care ( ) (2) Labour ward ( )  
 (3) Emergency room ( ) (4) Pain relief ( ) (5) I don't know ( )

20. Are anaesthetists mostly male or female? (1) Mostly male ( ) (2) Mostly female ( ) (3) Both male and female ( ) (4) I don't know ( )

21. Now that you have been prepared for the operation, would you like to know who your anaesthetist is? (1) Yes ( ) (2) No ( )

22. Would you like to choose your anaesthetist, if required? (1) Yes ( ) (2) No ( )

**D. Patient's perception of Anaesthesia and desire to know**

23. Are you familiar with the word anaesthesia? (1) Yes ( ) (2) No ( )

24. Would you like to have more information about anaesthesia? (1) Yes ( ) (2) No ( )

25. Are you afraid you will have to undergo surgery under anaesthesia as part of treatment for your condition? (1) Yes ( ) (2) No ( )

26. Which one are you afraid of? (1) anaesthesia ( ) (2) surgery ( ) (3) both ( ) (4) none ( )

27. What are you most concerned about or afraid of? Please tick from the options below; you may tick more than one:

I am afraid of:	Not at all	Somewhat	Very much
Pain during operation			
Pain after operation (post-operative pain)			
Being sleepy/ drowsy for hours after surgery/ delayed recovery from consciousness after surgery			
Not waking up after the surgery (death)			
Being nauseous postoperatively			
Needles and drains in the theatre			
Awareness of the surrounding during theatre			
Revealing personal issues due to the effect of anaesthesia			
Vomiting after the surgery			
The anaesthetist leaving the theatre suite during surgery			
Improper care/ the anaesthesiologist is not being skilled			
Unsuccessful GA/			

Unsuccessful RA			
Waking up in the middle of the surgery			
Being paralysed because of anaesthesia			
Admission into ICU			
General anaesthesia may affect my thought clarity.			
About complete recovery after discharge			
Having backache because of spinal anaesthesia			
Having headaches because of spinal anaesthesia			

28. If you have any / now that you are concerned about or afraid of the surgery/anaesthesia, whom do you prefer to talk to reassure you? (1) Ward nurse ( ) (2) Surgeon ( ) (3) Anaesthetist ( ) (4) My closed relation ( ) (5) God ( )

**Section 2: Intraoperative period**

A. In the suite before administration of anaesthesia (Patients' satisfaction with Anaesthesia Care

- 29. Were you visited on the ward by the anaesthetist before this surgery? (1)Yes ( ) (2) No ( )
- 30. Can you remember the name of the anaesthetist who visited you in the ward before this surgery? (1) Yes ( ) (2) No ( )
- 31. Did the anaesthetist spend adequate time with you during their visitation?  
(1) Yes ( ) (2) No ( )
- 32. Did you have a good sleep a night prior to the day of surgery? (1)Yes ( ) (2) No ( )
- 33. Did they allay your fears about the surgery and anaesthesia (1) Yes ( ) (2) No ( )

Section 3: Post-operative period

A Assessment of the patient's level of satisfaction with anaesthesia care given using 5- point Likert's Scale in the post-anaesthetic care unit (PACU)

34.

5-point Likert's scale	Tick as appropriate
1 Very dissatisfied	
2 Not satisfied	
3 Undecided	
4 Satisfied	
5 Very satisfied	

35. If the response to no 34 is 1, 2 or 3, give reason (s): .....

.....

.....



B. Assessment of patient's level of satisfaction with anaesthesia care using a 5-point Likert scale in the ward.

36.

5-point Likert's scale		Tick as appropriate
1	Very dissatisfied	
2	Not satisfied	
3	Undecided	
4	Satisfied	
5	Very satisfied	

37. If the response to no 36 is 1, 2 or 3, give reason (s): .....

.....  
 .....

**C. Assessment of Awareness under GA and patients' satisfaction with anaesthesia Care**

38. Were you anaesthetised (1) Yes ( ) (2) No ( )

39. What type of anaesthesia were you given? (1) General ( ) (2) Spinal ( ) (3) Epidural ( ) (4) Peripheral nerve block ( ) (5) Local ( ) (6) I don't know ( )

40. Who gave you the anaesthesia? (1) Surgeon ( ) (2) Anaesthetist ( ) (3) Perioperative nurse/sister ( ) (4) Technician ( )

41. Can you remember what happened during the surgery? (1) Yes ( ) (2) No ( ) (for patients who had GA only) From No 37 - 44

42. What was the last thing you remember happening before you slept off?  
 (1) Receiving injection on the hand before going to sleep ( ) (2) I cannot remember anything ( ) (3) receiving air through a plastic ( )

43. What was the first thing you remembered happening on waking up (1) waking up with a tube in my mouth ( ) (2) I felt cold in the recovery room ( ) (3) I heard from a distant voice calling my name ( )

44. Did you dream or have any other experience while sleeping?  
 (1) Yes ( ) (2) No ( )

45. What was the worst thing about your operation? (1) I felt stitching ( ) (2) pain ( ) (3) Paralysis ( ) (4) choking ( ) (5) suffocating ( ) (6) I felt an impending doom or death ( )

46. What was the next worst thing (1) I felt stitching ( ) (2) pain ( ) (3) paralysis ( ) (4) Chocking ( ) (5) suffocating ( ) (6) I felt an impending doom or death ( )

47. Were you awake in the middle of the operation? (1)Yes ( ) (2) No ( )

48. Did you hear any voice during the operation? (1) Yes ( ) (2) No ( )

49. Who was with you in the operating room when you woke up? (1) Surgeon ( ) (2) Anaesthetist ( ) (3) Technician ( ) (4) Perioperative nurse/ sister ( )

50. How important do you think is the role played by the anaesthetist?  
 (1) Extremely important ( ) (2) Moderately important ( ) (3) Not much important ( ) (4) nil ( )

For patients who had Regional Anaesthesia only.

51. How do you feel after a few minutes when you are given an injection on your back?  
(1) I felt warmth on both legs ( ) (2) My legs were weighty to raise ( ) (3) All the aches and pains disappeared ( ) (4) I couldn't breathe properly, so I was given some air to breathe ( ). Specify any other feeling (s) that you have experienced..... You may choose more than one option.

52. Can you remember the name of the surgeon who visited you before this surgery and the name of the attending surgeon?  
(1) Yes ( ) (2) No ( )

53. Did the same anaesthetist who visited you before this surgery also come back to visit on the ward after this surgery? (1) Yes ( ) (2) No ( )

54. If given the opportunity, would you like an anaesthetist to visit you on the ward after surgery? (1) Yes ( ) (2) No ( )

55. If the response to No 54 is YES, kindly state your reason .....

56. If the response to No 54 above is NO, kindly state your reason: (s).....

**D. Assessment of possible side-effects of anaesthetic drugs given to the patients**

57. Were you informed about the possible side effects of anaesthetic drugs during the pre-anaesthetic visit (1) Yes ( ) (2) No ( )

58. After this surgery, have you experienced any possible side effects of anaesthetic drugs? (1) Yes ( ) (2) No ( )

59. Tick the possible side effects of anaesthetic drugs you have experienced after this surgery? (1) Vomiting ( ) (2) Nausea ( ) (3) Severe headache ( ) (4) Neck pain ( ) (5) Muscle pain ( ) (6) Sore throat ( ) (7) Backache ( ) (8) Urinary retention ( ) (9) Delayed recovery from consciousness after surgery ( ) (10) Shivering ( ) (11) Any other side effects specify .....