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Research Article

Assessment of Patients' Satisfaction with Anesthesia Services and Its Associated Factors at a Teaching Hospital in South India: A Cross-Sectional Study

Aswini Lakshminarasimhan[1], Sathiyanarayanan Pilendran[2]*

[1]*Department of Anesthesiology, Esic Medical College and Postgraduate Institute of Medical Sciences and Research (ESIC MC&PGIMSR), Chennai, Tamil Nadu. India.*

[2]*Department of Anesthesia, Government Thanjavur Medical College, Tamil Nadu, India.*

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ABSTRACT

Background: Patient satisfaction is one of the main quality indicators of anesthesia services. Various factors can determine patient satisfaction, such as anesthetist-patient interaction, perioperative anesthetic management, and postoperative follow-up. The aim of this study was to assess patient satisfaction with anesthesia services and its associated factors.

Methods: An Institutional based cross-sectional study was conducted from July 2019 to October 2019 at a teaching hospital in South India. Patients who have undergone surgery by either general or regional anaesthesia were included. For postoperative interview, a structured questionnaire was administered. The satisfaction score was considered to be an outcome variable. Age, gender, ASA status, and type of anesthesia were considered to be explanatory variables.

Results: A total of 462 patients were included in the study. The mean age of the study population was 41.84 (±13.48 SD) years. Males were found to have statistically higher mean satisfaction scores as compared to females. The mean satisfaction score among the patients with combined anesthesia (general anesthesia in addition to regional anesthesia) was significantly higher as compared to patients with GA, CNB, and PNB ($p<0.05$). There was a significant difference in the degree of satisfaction with induction, intraoperative pain relief, and pain relief in the postoperative period among patients with different types of anesthesia ($p<0.05$). 39.2% of patients were dissatisfied with the self-introduction of anesthetists, and 17.7% were dissatisfied with anesthetist revisit in postoperative period.

Conclusion: Poor self-introduction of anesthetists, absence of postoperative revisit by the anesthetist, and lack of proper planning for postoperative pain relief contributed a major part to the dissatisfaction.

Patient satisfaction is one of the leading indicators of quality anesthesia services. The degree of patient satisfaction can be measured by a postoperative visit of the patient and using a questionnaire to collect the data on satisfaction [1-2]. Various factors determine patient satisfaction, such as accessibility of the services, the convenience of the patient, institutional infrastructure, interpersonal relationships, the competence of health professionals, and patient expectations and preferences [3]. Lack of good quality anesthesia services may dampen the available services. Health services are considered essential services that have to be provided without any compromise of the quality [4-5]. Patient satisfaction is primarily affected by the patient's expectations and perceptions. There should be a routine system in hospitals, where if a concern is

The authors declare no conflicts of interest.
*Corresponding author.
E-mail address: aswinijipmer@gmail.com

raised, it has to be identified, monitored, modified, and prevented from occurring in the future [6]. Patient satisfaction with anesthesia services is one of the ways to assess the quality of services provided from the recipient point of view [7].

However, it is challenging to assess the patients' satisfaction during the pre-operative or intraoperative period because the patient is either in pain or not conscious of replying to questions [8]. Hence, the postoperative period is ideal. There is no standardized tool available for measuring patient satisfaction. The previous study showed that among patients who were operated under general anesthesia and local anesthesia, 87 % of patients were satisfied with anesthesia services, 0.5 % were dissatisfied, and 12.5 % did not have an opinion [9]. In another study, the overall satisfaction of less than 85% was seen in 54% of the study's participants and females, patients who were educated and American Society of Anesthesiologists physical status (ASA) 1–2 patients were less satisfied [10].

The ASA and its committee on performance and outcomes measurement (CPOM) have reviewed available literature on the assessment of the patient experience with anesthesia. Based on this review, the ASA has given some recommendations for collecting data about patient satisfaction [11]. Various questionnaires such as the Anesthesiologist Patient Satisfaction Questionnaire (APSQ), Leiden Perioperative care Patient Satisfaction questionnaire (LPPSq), modified Iowa anesthesia scale, EVAN -G questionnaires have been used to measure assess patient satisfaction.

This study is mainly intended to assess the degree of patients' satisfaction with anesthesia services in the perioperative period and determine the factors influencing patients' satisfaction.

Methods

This descriptive observational study was conducted by the anesthesia department at a teaching hospital in South India from July 2019 to October 2019. Clinical trial registry of India registration was done (CTRI/2019/03/018315). Institutional ethics committee approval was obtained. All patients undergoing elective surgery under general or regional anesthesia during the study period, aged 18 to 70 years of either sex, belonging to the ASA physical status I, II, or III, were enrolled in the study. Universal sampling was followed. Patients undergoing emergency surgeries, those who were discharged within 24 hours, those who were unconscious or on a ventilator for 24 hours after surgery, patients who refused to give consent, and those who underwent repeat surgeries were excluded from the study.

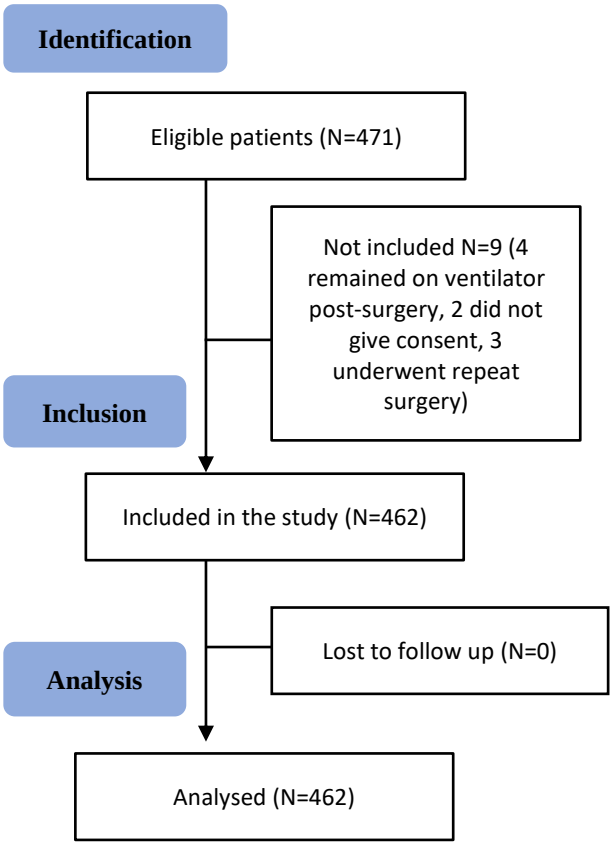
A face-to-face questionnaire-based interview was conducted with the patient on the first postoperative day. The questionnaire was prepared based on the American Society of Anesthesiologists (ASA). The content validity of the questionnaire was assessed by a panel of ten anesthesiologists of another hospital. Based on the subject experts' suggestions, the questions were slightly modified to improve the understanding of the question to the patient. The linguistic validity of the questionnaire was tested by translating the question into Tamil language and back translating it to English by language experts. The final questionnaire thus designed included general information about the patient's age, sex, comorbid conditions, and ASA status, the surgical procedure, and the type of anesthesia received.

Sixteen questions were asked to assess the patient's satisfaction, including preoperative, intraoperative, and postoperative factors. The questionnaire is given in Appendix 1. The factors related to preoperative anesthetic satisfaction were self-introduction of the anesthetist, providing adequate information about anesthesia pre-operatively, chance to ask a question, and choosing the type of anesthesia. The factors related to intraoperative management included the reception of the patient in the operating room, maintenance of their privacy, pain at the time of induction of anesthesia, intraoperative awareness, and intraoperative pain relief. The factors associated with postoperative care and discomforts included a visit by the anesthesiologist, postoperative pain relief, treatment of postoperative complications like nausea, vomiting, and shivering, and rating the quality of care provided by the anesthesiologists. After adequate training, two staff nurses in the postoperative ward were involved in data collection. The data confidentiality was maintained by avoiding the patient's identification. The patients who were highly dissatisfied with the anesthesia services were re-assured, and the concerned anesthesiologist was informed about the patient's problem for remedial action if any. Response to the questions was elicited by a five-point Likert scale where the patients were asked to rate based on their level of satisfaction. This was rated as 1= very much dissatisfied/ strongly disagree, 2= dissatisfied/ disagree, 3= neither satisfied nor dissatisfied /neither agree nor disagree, 4= satisfied / agree, 5= very much satisfied / strongly agree.

The satisfaction score was considered to be an outcome variable. Age, gender, ASA status, and anesthesia type were considered explanatory variables. Descriptive analysis was done by frequency and proportion for characteristics of the study population and each question related to patients' satisfaction. Those questions related to patients' satisfaction which were scored on the Likert scale, were added together to obtain the satisfaction score. An independent t-test was used to compare the satisfaction score between two groups. One-way ANOVA with Bonferroni post-hoc test compared mean satisfaction scores between more than two groups. Kruskal-Wallis test was used to compare the median (IQR) of some questions related to patients' satisfaction according to the type of anesthesia since each question was ordered on a Likert scale. The predictors of

satisfaction scores were assessed by multiple regression analysis. P-value <0.05 was considered statistically significant. RStudio Version 1.2.1093 was used for statistical analysis [12].

Figure 1- STROBE flow diagram



Results

A total of 462 patients were included in the study. The mean age of patients was 41.84 (±13.48 SD) years. The average total satisfaction score was calculated to be 58.00% (± 3.04 SD). The majority of patients recalled injection (42.9%) before anesthesia; 11.3% didn't recall anything (Table 1).

(Table 2) showing 39.2% of patients were dissatisfied with the self-introduction of anesthetists, and 17.7% were dissatisfied with anesthetist revisit in the post-op period.

(Table 3) showing There was a statistically insignificant difference in total satisfaction score according to age group and ASA status (p>0.05). However, males were found to have statistically significant higher mean satisfaction scores as compared to females (Mean difference: 1.27 (95%CI: 0.73, 1.81), p<0.05).

There was a statistically significant difference in the degree of satisfaction with induction, intraoperative pain relief, and pain relief in the postoperative period among patients with different types of anesthesia (p<0.05) (Table 4).

Gender, ASA status, and type of anesthesia were found to be significant predictors of satisfaction scores. The expected average increase in satisfaction score among males as compared to females was found to be 1.23 (β: 1.23; 95% CI: 0.67, 1.78). With each grade increase in ASA status, there was 0.56 times (β: 0.56; 95% CI: 0.01, 1.10) increase in satisfaction score. The expected average decrease in satisfaction score among patients with GA, CNB and PNB compared to patients with combined anesthesia was found to be 2.82 (β: -2.82; 95% CI: -3.94, -1.70), 2.51 (β: -2.51; 95% CI: -3.58, -1.43) and 1.86 (β: -1.86; 95% CI: -3.19, -0.53) respectively.

Table 1- Characteristics of the study population (N=462)

Variables	n	%
Age group		
<40 years	211	45.7
>=40 years	251	54.3
Gender		
Female	223	48.3
Male	239	51.7
American society of Anesthesiologists (ASA) status		
1	230	49.8
2	208	45.0
3	24	5.2
Type of anesthesia		
CNB	246	53.2
Combined anesthesia	32	6.9
General anesthesia	140	30.3
PNB	44	9.5

(PNB: Peripheral nerve blockade; CNB: central neuraxial blockade)

Table 2- Percentage of responses to the questionnaire

Variables	Very much dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very much satisfied
Self-introduction of anesthetist	1(0.2%)	180 (39%)	177 (38.3%)	98 (21.2%)	6 (1.3%)
Able to ask questions	0 (0.0%)	31 (6.7%)	193 (41.8%)	214 (46.3%)	24 (5.2%)
Satisfied with the information given	0 (0.0%)	52 (11.3%)	101 (21.9%)	263 (56.9%)	46 (10.0%)
Information was understandable	1 (0.2%)	44 (9.5%)	34 (7.4%)	330 (71.4%)	53 (11.5%)
Able to choose type of anesthesia	0 (0.0%)	75 (16.2%)	34 (7.4%)	313 (67.7%)	40 (8.7%)
Felt calm and relaxed after pre op visit	0 (0.0%)	8 (1.7%)	18 (3.9%)	294 (63.6%)	142 (30.7%)
Explained the feel after anesthesia	0 (0.0%)	17 (3.7%)	4 (0.9%)	313 (67.7%)	128 (27.7%)

Privacy maintained in operating room	0(0.0%)	47 (10.2%)	26 (5.6%)	327 (70.8%)	62 (13.4%)
Satisfied with induction	0 (0.0%)	29 (6.3%)	22 (4.8%)	311 (67.3%)	100 (21.6%)
Satisfied with pain relief intra op	0 (0.0%)	3 (0.6%)	7 (1.5%)	246 (53.2%)	206 (44.6%)
Anesthetist revisited in post op period	0(0.0%)	82 (17.7%)	71 (15.4%)	237 (51.3%)	72 (15.6%)
Pain relief in post op period	1 (0.2%)	40 (8.7%)	119 (25.8%)	191 (41.3%)	111 (24.0%)
Treatment of nausea and vomiting	0 (0.0%)	45 (9.7%)	10 (2.2%)	250 (54.1%)	157 (34.0%)
Treatment of shivering	0 (0.0%)	61 (13.2%)	26 (5.6%)	237 (51.3%)	138 (29.9%)
Overall quality of care	0 (0.0%)	31 (6.7%)	18 (3.9%)	264 (57.1%)	149 (32.3%)

Table 3- Satisfaction score according to age group, gender and ASA status

Variables		**Satisfaction score (Mean ± SD)**	**P value**
Age group	<40 years	57.75 ± 2.99	0.113
	>=40years	58.20 ± 3.07	
Gender	Female	57.34 ± 2.99	<0.001*
	Male	58.61 ± 2.97	
ASA status	1	57.87 ± 2.92	0.503
	2	58.07 ± 3.07	
	3	58.58 ± 3.87	

(*P <0.05 is considered significant; SD: Standard deviation)

Table 4a- Satisfaction score according to type of anesthesia

Type of anesthesia	**Satisfaction score (Mean ± SD)**	**P value**
CNB	57.87±2.95	<0.001*
Combined anesthesia	60.50±3.52	
GA	57.45±2.91	
PNB	58.66±2.66	

Table 4b- Satisfaction score according to type of anesthesia (Bonferroni post-hoc test)

Pair	**Mean difference**	**95% CI**		**P value**
		Lower	**Upper**	
Combined - GA	3.050	1.516	4.584	<0.001*
Combined - CNB	2.634	1.163	4.105	<0.001*
Combined - PNB	1.841	0.022	3.660	0.045*
PNB - GA	1.209	-0.144	2.562	0.110
PNB - CNB	0.793	-0.488	2.075	0.610
CNB - GA	0.416	-0.413	1.245	1.000

*P <0.05 is considered significant; SD; standard deviation, CI: confidence interval

Table 5- Median (IQR) of different variables according to type of anesthesia

Variables	Type of anesthesia				P-value
	CNB	Combined anesthesia	GA	PNB	
Satisfaction with induction	4 (4,4)	4 (4,5)	4 (4,5)	4 (4,4)	0.023*
Satisfaction with pain relief intra op	4 (4,5)	5 (4,5)	4 (4,5)	5 (4,5)	0.029*
Pain relief in post op period	4 (3,4)	4 (3,5)	4 (3,4)	4 (4,4)	0.001*
Treatment of nausea and vomiting	4 (4,5)	4 (4,5)	4 (4,5)	4 (4,5)	0.886
Treatment of shivering	4 (4,5)	4 (3,4.5)	4 (4,5)	4 (4,4.5)	0.807

(*P <0.05 is considered significant)

Table 6- Multiple regression to determine the predictors of satisfaction score

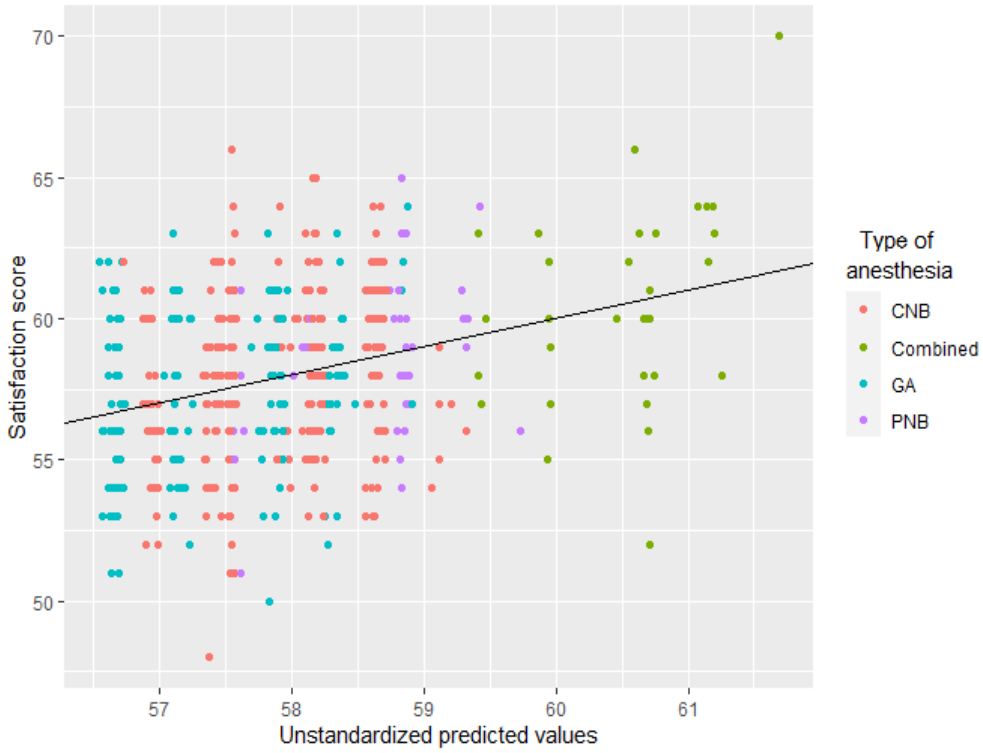
Variables	**β estimate (95% CI)**	**SD Error**	**t value**	**P-value**	**R^2**	**Constant**	**N**
Age	-0.01(-0.03,0.02)	0.012	-0.428	0.669			
Gender: Male	1.23 (0.67,1.78)	0.282	4.349	<0.001*	0.104	59.08	462
ASA status	0.56 (0.01,1.10)	0.279	1.999	0.046*			

Type of anesthesia: GA	-2.82(-3.94, -1.70)	0.570	-4.940	<0.001*
Type of anesthesia: CNB	-2.51(-3.58, -1.43)	0.548	-4.580	<0.001*
Type of anesthesia: PNB	-1.86(-3.19, -0.53)	0.677	-2.746	0.006*

(*P < 0.05 is considered significant)

Note: Female and Combined anesthesia were taken as reference category for the variables gender and type of anesthesia respectively; R2: Proportion of the total variability explained by the factor effect.

Figure 2- Scatter plot depicting predicted versus observed satisfaction score



Discussion

Our study findings showed that the average total satisfaction score was 58.00 percent among the study participants. The modifiable domains that influence patient satisfaction with anesthesia services include fear and anxiety, decision-making involvement, pain or discomfort, postoperative nausea and vomiting, and continuity of care by anesthetists [13].

In our study, most of the patients were >40 years (54.31%). This was consistent with an Italian study [14] that observed higher satisfaction rates in elderly patients. On the contrary, a 2019 study done by Pozdnyakova A et al. [15] found that age less than 55 years was associated with better patient satisfaction. It was observed in our study that males had more satisfaction scores compared to females. This finding was consistent with the Dutch study [16] and may be attributed to the differences in perception of the care provided between the two genders. The same finding of increased satisfaction among males and older were reported in other studies [17-19]. A study conducted at the Gondar hospital found that disease status is associated with the level of satisfaction [20]. No such finding was observed in the current study.

Heidegger T et al. [21] have stressed the importance of practical communication skills of the anesthetist in building patient satisfaction. Elements about emotional and interpersonal relationships were valued highly by inpatients as per a study by Capuzzo et al. [16] Mui et al. [22] showed that patients undergoing regional anesthesia needed more information and emotional support than patients undergoing general anesthesia. A preoperative visit with empathy by the anesthetist has been shown to reduce anxiety, as per the study by Soltner C et al. [23] Self-introduction of anesthetists during the pre-operative visits was not directly related to patient satisfaction according to an Ethiopian study, where the anesthetists introduced themselves to only about 24% of patients, provided information about anesthesia to only 32%, explained the postoperative complications to only 21% patients and postoperative analgesic plan to 18% of patients and information about postoperative nausea and vomiting was given only to 21% of patients [24]. 39% were dissatisfied with the preoperative anesthetist

introduction in the current study. However, 46.3% were satisfied as they were able to ask questions, and 56.9% were satisfied as they could understand the information given to them. The majority (94.3%) felt calm and relaxed after a pre-op visit by the anaesthetist. This is comparable with a Srilankan study where 96.14 % of the patients were relaxed following the pre-operative visit [25]. Privacy experienced by the patients within the operating room also co-relates positively with the degree of satisfaction. Patients feel vulnerable and powerless when their privacy is compromised [26]. In our study, 84.2 % of patients agreed that their privacy was taken care of.

A survey of 10811 patients by Myles et al. [27] also showed a strong relationship between patient dissatisfaction and intraoperative awareness. Intraoperative awareness is a nightmare and a horrible experience for the patients. Anesthetists are legally liable to punishments if a patient experiences intraoperative awareness. In our study, none of the patients reported awareness under general anesthesia. Most of them recalled only "injection" (42.9%) before getting anesthetized, while some recalled "mask at the face." The study conducted among the Saudi population showed a significant interaction between the type of anesthesia and the level of satisfaction, with the highest satisfaction level with both regional and general anesthesia. In contrast, the lowest percentages were observed in local anesthesia [28]. Among 282 patients studied in India, those who underwent upper limb surgeries with regional anesthesia had better patient satisfaction than those with general anesthesia. They also had a longer duration of analgesia and reduced hospital stay [29]. In the current study, the satisfaction score among the patients with combined anesthesia was significantly higher than patients with GA, CNB, and PNB, respectively ($p<0.05$).

Postoperative pain affects patients' satisfaction negatively. Multimodal analgesia in peripheral nerve blocks has also greatly enhanced patient satisfaction. The study by Belay et al. [20] also supports that postoperative nausea and vomiting (PONV) and pain are the major contributors to decreased patient satisfaction. Belay et al. [20] also recommended implementing pain assessment on a timed interval during the initial 24 hours of the postoperative period. A multicenter survey done in Saudi proved that postoperative nausea and vomiting (PONV) was the most common reason for dissatisfaction among patients, followed by pain control, with rates of dissatisfaction being 35.6% and 31.7%, respectively [28]. In this study, there was a statistically significant difference in satisfaction rates between GA and PNB groups in the induction of anesthesia; intraoperative pain relief was significantly higher with combined anesthesia than those who received only GA; there was a statistically significant difference in postoperative pain relief between combined anesthesia and GA groups and between CNB and GA groups. Also, we noted a statistically insignificant difference in the treatment of nausea and vomiting and treatment of shivering among patients according to the type of anesthesia. According to Saal et al. [30], a single postoperative visit by the attending anesthesiologist significantly increased the feeling of continuity of care by the anesthetist compared with no visit. Among study patients, 17.7% were dissatisfied with anesthetist revisiting in the post-op period.

The current study showed that gender, ASA status, and type of anesthesia were significant predictors of satisfaction scores. We found an overall average satisfaction score of only 58%, which is very low compared with the study conducted at the Gondar Teaching and referral hospital, where the overall level of patient satisfaction was as high as 98.1% [20]. Our finding is congruent with the study conducted among the Saudi population, which reported a moderate overall satisfaction of 56.5% [28]. The study at Eritrea reported satisfaction of around 68.8% [31]. Though our patients reported reasonably good satisfaction scores concerning the treatment of PONV, shivering, the overall average score was found to be less, which could be multifactorial. In our institute, the duty anesthetist carries out the pre-operative assessment, so the patients have less chance to interact with the anesthetist in theatre. Also, surgeons play a crucial role in postoperative pain management, and the leadership on the part of the anesthesiologists and the involvement of nursing staff is limited. We do not have a standard pain assessment tool. Moreover, as it is a teaching institute, the post-graduate students are also involved in patient management, which could explain the varied satisfaction rates. This study did not address other factors that could reasonably influence satisfaction like socioeconomic status, education level, waiting time before surgery, duration of surgery, and surgical complications.

Conclusion

Poor self-introduction of anaesthetists, absence of postoperative revisit by anaesthetist and lack of proper planning for postoperative pain relief contributed major part to the dis satisfaction. Gender, ASA status and type of anesthesia were found to be significant predictors of satisfaction score. Hence, it is recommended to include the interpersonal skills and patient interaction into the anesthesia curriculum and every hospital should have a protocol to assess the patient satisfaction of anesthesia services. Dynamic changes have to be done in anesthesia practice in order to improve the quality of care provided, as patients' satisfaction can influence payment of anesthesiologists too in near future.

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References

[1] Singh A, Dutta A, Sood J. Influence of multi-level anaesthesia care and patient profile on perioperative patient satisfaction in short-stay surgical inpatients: A preliminary study. Indian Journal of Anaesthesia. 2007; 51(2):106.

[2] Bauer M, Böhrer H, Aichele G, Bach A, Martin E. Measuring patient satisfaction with anaesthesia: Perioperative questionnaire versus standardised face-to-face interview. Acta Anaesthesiol Scand. 2001; 45(1):65-72.

[3] Hall JA, Dornan MC. What patients like about their medical care and how often they are asked: A meta-analysis of the satisfaction literature. Soc Sci Med. 1988; 27(9):935-939.

[4] Heidegger T, Nuebling M, Germann R, Borg H, Flückiger K, Coi T, et al. Patient satisfaction with anesthesia care: Information alone does not lead to improvement. Can J Anesth. 2004; 51(8):801-805.

[5] Thiedke CC. What Do We Really Know About Patient Satisfaction. Fam Pract Manag. 2007; 14(1):33-36.

[6] Fung D, Cohen MM. Measuring patient satisfaction with anesthesia care: A review of current methodology. Anesth Analg. 1998; 87(5):1089-1098.

[7] Capuzzo M, Alvisi R. Is it Possible to Measure and Improve Patient Satisfaction with Anesthesia? Anesthesiol Clin. 2008; 26(4):613-626.

[8] Gupta A, Gupta N. Patient's experiences and satisfaction with preanesthesia services: A prospective audit. J Anaesthesiol Clin Pharmacol. 2011; 27(4):511-515.

[9] Wołowicka L, Trojanowska I, Bartkowska-Sniatkowska A, Buchwald E. Patient satisfaction with anesthesia as a measure of quality of anesthesia care. Folia Med Cracov. 2001; 42(4):219-226.

[10] Baroudi D, Nofal W, Ahmad N. Patient satisfaction in anesthesia: A modified Iowa Satisfaction in Anesthesia Scale. Anesth Essays Res. 2010; 4(2):85.

[11] Barnett SF, Alagar RK, Grocott MP, Giannaris S, Dick JR, Moonesinghe S. Patient-satisfaction measures in anesthesia: qualitative systematic review. Anaesthesiol. 2013;119(2):452-478.

[12] Team R. Studio. Deliver the insights that your stakeholders want with RStudio Connect. [Internet]. RStudio; 2015. [Cited 2021 Dec 20]. Available from: http://www.rstudio.com/

[13] Falco D, Rutledge DN, Elisha S. Patient satisfaction with anesthesia care: What do we know? AANA J. 2017; 85(4):286-292.

[14] Varelmann D, Pancaro C, Cappiello EC, Camann WR. Nocebo induced hyperalgesia during local anesthetic injection. Anesth Analg. 2010; 110:868-870.

[15] Pozdnyakova A, Tung A, Dutton R, Wazir A, Glick DB. Factors Affecting Patient Satisfaction With Their Anesthesiologist: An Analysis of 51,676 Surveys From a Large Multihospital Practice. Anesth Analg. 2019; 129(4):951-959.

[16] Capuzzo M, Landi F, Bassani A, Grassi L, Volta CA, Alvisi R. Emotional and interpersonal factors are most important for patient satisfaction with anaesthesia. Acta Anaesthesiol Scand. 2005; 49(6):735-742.

[17] Cohen. G. Age and health status in a patient satisfaction survey. Soc Sci Med. 1996; 42(1):1085-1093.

[18] Jaipaul CK, Rosenthal GE. Are older patients more satisfied with hospital care than younger patients? J Gen Intern Med. 2003;18(1):23-30.

[19] Woods SE, Heidari Z. The influence of gender on patient satisfaction. J Gender-Specific Med. 2003; 6(4):30-35.

[20] Belay Bizuneh Y, Fitiwi Lema G, Yilkal Fentie D, Woldegerima Berhe Y, Enyew Ashagrie H. Assessment of Patient's Satisfaction and Associated Factors regarding Postoperative Pain Management at the University of Gondar Compressive Specialized Hospital, Northwest Ethiopia. Pain Res Manag. 2020; 2020:8834807.

[21] 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):1165-1172.

[22] Mui WC, Chang CM, Cheng KF, Lee TY, Ng KO, Tsao KR, et al. Development and validation of the questionnaire of satisfaction with perioperative anesthetic care for general and regional anesthesia in taiwanese patients. Anesthesiology. 2011; 114(5):1064-1075.

[23] Soltner C, Giquello JA, Monrigal-Martin C, Beydon L. Continuous care and empathic anaesthesiologist attitude in the preoperative period: Impact on patient anxiety and satisfaction. Br J Anaesth. 2011; 106(5):680-686.

[24] Gebremedhn EG, Nagaratnam V. Assessment of patient satisfaction with the preoperative anesthetic evaluation. Patient Relat Outcome Meas. 2014; 5:105-10.

[25] Vyhunthan G, Aeshana de Silva NG. Audit to evaluate preoperative visit to patient by anaesthetist. Sri Lankan J Anaesthesiol. 2012; 20(2):88–91.

[26] Wong J, Shah U, Wong D. Patient satisfaction and positive patient outcomes in ambulatory anesthesia. Ambul Anesth. 2015; 2:29.

[27] Myles PS, Williams DL, Hendrata M, Anderson H, Weeks AM. Patient satisfaction after anaesthesia and surgery: Results of a prospective survey of 10,811 patients. Br J Anaesth. 2000; 84(1):6-10.

[28] Alsaif A, Alqahtani S, Alanazi F, Alrashed F,

Almutairi A. Patient satisfaction and experience with anesthesia: A multicenter survey in Saudi population. Saudi J Anaesth. 2018; 12(2):304-310.

[29] Suresh P, Mukherjee A. Patient satisfaction with regional anaesthesia and general anaesthesia in upper limb surgeries: An open label, cross-sectional, prospective, observational clinical comparative study. Indian J Anaesth. 2021; 65(3):191-196.

[30] Saal D, Hiedgger T, Nuebling M GR. Does post operative visit increase patient satisfaction with anaesthesia care? Br J Anaesth. 2011;107(5):703-709.

[31] Gebremedhn EG, Lemma GF. Patient satisfaction with the perioperative surgical services and associated factors at a university referral and teaching hospital, 2014: A cross-sectional study. Pan Afr Med J. 2017;27.