Original Research Paper

Volume - 11 | Issue - 07 | July - 2021 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

Anaesthesiology

A STUDY ON PATIENT SATISFACTION WITH ANAESTHESIA SERVICES

Dr. Prof. S. Sree Ranjini — Professor and Head, Dept. Of Anaesthesiology, Bhaarath Medical College Hospital, Chennai.

Dr. N. Sudhakar* — Assistant Professor, Dept. Of Gen. Surgery, Bhaarath Medical College Hospital, Chennai. *Corresponding Author

ABSTRACT

Introduction: Patient satisfaction with medical service is an important indicator of quality of healthcare. Hence hospitals have to regularly evaluate the same.

Aim Of Our Study: To assess patient satisfaction with anaesthesia services in our hospital.

Methods: This prospective study was conducted through a questionnaire in 58 eligible patients aged between 18 – 60 years; of ASA class I, II; who were operated upon electively under anaesthesia during the study period. The questionnaire consisting of 15 questions in the local language was administered to them one day after surgery. Patients had to give a simple answer of yes or no.

Results: The overall average satisfaction score was at 94.64%.

Discussion: Patient satisfaction depends on many factors. Anaesthetists must be able to build a trustworthy relationship with patients by being compassionate, provide necessary information regarding techniques & complications, involve patients in decision making about choice of anaesthesia care; an empathetic approach intra operatively, prompt management of pain and other complications postoperatively, including a post - operative visit; all of which will improve patient satisfaction.

Conclusion: Every provider should survey patient satisfaction, as it gives valuable inputs for adaptation and quality development in health care.

KEYWORDS : patient satisfaction, quality of health care, anaesthesia services, anaesthesia quality

INTRODUCTION:

Patient satisfaction with medical service is an important indicator of quality of healthcare. Outcome measurements provide important feedback, indicating what works and what does not, and hence are a prerequisite for improvement measures[1]. It is a sensitive measure of a well-functioning health service system[2]. In anaesthesia, this satisfaction can be affected by doctor – Patient interaction at preoperative, intraoperative and post-operative stages.

Aim Of Our Study:

To assess patient satisfaction with anaesthesia services in our hospital.

METHODOLOGY:

This prospective study was conducted through a questionnaire in 58 eligible patients aged between 18 – 60 years; of ASA class I, II; who were operated upon electively under general or regional anaesthesia during the study period (January 2021). The questionnaire consisting of 15 questions in the local language was administered to them one day after surgery. Patients had to give a simple answer of yes or no. Patients who refused to participate in the study, emergency surgeries and day care cases were excluded.

Table 1: Anaesthesia Feedback Form – To Be Filled By Patients

		Yes	No
	PRE OPERATIVE		
1	Did anaesthetist introduce themselves		
2	Was anaesthetist friendly and cordial in approach		
3	Were anaesthesia techniques explained		
4	Were possible side effects and complications explained to you		
5	Were you allowed to choose anaesthesia		
6	Were your doubts about anaesthesia cleared		
7	Was your anxiety allayed before surgery		
	INTRA OPERATIVE		
8	Were you received well in the Operating room		
9	Did you have privacy		
10	Did you have pain when anaesthesia was being given		
11	Did you have pain during surgery		
	POST OPERATIVE		
12	Did you have pain immediately after surgery		
13	Did anaesthetist revisit you after surgery		
14	Did you have the following complications		
	nausea		
	vomiting		
	shivering		
	Sore throat		
	Feel cold		
15	Are you satisfied with anaesthesia service		

RESULTS:

Of the 58 eligible patients, 21 were males and 29 females. 18 patients (8M/10F) underwent surgery under General anaesthesia (GA) and 32 (13M/ 19F) under regional anaesthesia (RA).

From the 7 parameters (questions) pertaining to pre - operative evaluation of the patient, an average of 93.96% satisfaction score was achieved. Regarding being allowed to choose anaesthesia and anxiety being allayed, 48 (82.75%) and 40 (68.96%) respectively were satisfied. All patients were satisfied with the other parameters.

From the 4 parameters pertaining to intra operative status of the patient, an average of 96.98% satisfaction score was achieved. 7 patients felt that they lacked privacy, rest 51 (87.93%) were satisfied. All patients were satisfied with the other parameters.

Postoperatively, overall average satisfaction score for parameters was 92.99%. 52 patients (89.65%) and all patients (100%) were satisfied with pain management immediately after surgery and anaesthetist revisiting them respectively. 50 (86.21%), 56 (96.55%), 50 (86.21), 56 (96.55%) and 47 (81.03%) patients had no complaints of nausea, vomiting, shivering, sore throat or feeling cold respectively; the average satisfaction score for complications being 89.31%.

Based on the above, the overall average satisfaction score is at 94.64%. But for the direct question of "Are you satisfied with anaesthesia service", 57 patients (98.28%) had ticked 'Yes' for an answer.

DISCUSSION:

The quality assurance movement in healthcare began to gather momentum in the late 1980's and early 1990's[3]. Now, patient satisfaction is considered to be an integral part of service quality[4]. Achieving high values for patient-centred outcomes has to be the most important outcome of healthcare[5]. Measurement of patient satisfaction is also required to fulfil performance improvement and revalidation agendas for healthcare professionals[6].

The Royal College of Anaesthetists states that 'Reliable patient feedback will be a valuable indicator and source of supporting

information of certain professional skills for appraisal and revalidation'[7]. As Hanna Vuori[8] had very rightly stated that "It does not matter whether the degree of patient satisfaction reflects the competence of the physician or the quality of care. The important thing is that if patients are dissatisfied, health care has not achieved its goal". Hence it is imperative that patient satisfaction has to be assessed by the health care providers.

The concept of satisfaction is not easy to define and is influenced by cultural, socio-demographic, cognitive and affective factors and "Patient expectations" form a basic concept in the term 'satisfaction'[9,10]. Pascoe[11] defined patient satisfaction as the patient's reaction consisting of a "cognitive evaluation" and "emotional response" to the care they receive.

There are some factors which affect a patient's satisfaction. Patient age has been identified as a characteristic, often found to have the strongest associations with satisfaction[12]. Compared to patients at 65 years or more, patients ages 18–64 were less likely to report that their provider "always" listened to them, "always" showed respect for what they had to say, and "always" spent enough time with them[13]. Similarly, studies have shown that patient satisfaction depends on the health status and severity of illness, with patients who go to the emergency room for medical emergencies being more satisfied[14,15]. Thus, to prevent bias we limited the age of our study population to 60 years and less; ASA I, II classes and elective surgeries only. But there is unclear, contradictory and inconclusive relationship between satisfaction and gender; race; marital status and social class[16].

Patient satisfaction can be measured by face to face interviews or by giving a questionnaire. Our study was conducted through a questionnaire. Interviews can extract individual experiences and capture group dynamics[17]. Bauer et al[18] studied 700 patients on the second post - operative day to primarily quantify the degree of patient satisfaction with anaesthesia and secondarily to compare the questionnaire technique with standardised face-to-face interviewing. They found that responses to questions on anaesthesia-related discomfort revealed only minor differences between the questionnaire and the face-to-face interview. The questions on satisfaction with anaesthesia, however, were answered consistently in a more critical manner during the interview and hence concluded that the standardised interview may be more suited to determine patient satisfaction than a questionnaire. But other researchers have points in favour of a questionnaire. According to Fung[19], in face to face interviews, patient responses may be biased in order to please the hospital staff to avoid negative repercussions. Bothner[20] says that, in order to avoid the phenomenon of transference and countertransference, a questionnaire should lead to less bias than an interview.

American Society of Anaesthesiologists (ASA) has developed a Patient Satisfaction Initiative and recommended a set of survey questions to be used to evaluate patient satisfaction. There are validated survey instruments such as Heidelberg peri-anaesthetic questionnaire[21], Northampton anaesthesia patient satisfaction survey[22] and Consultation And Relational Empathy (CARE) questionnaire[23]. Heidelberg peri-anaesthetic questionnaire[21], has 38 questions which are graded on a 4 point likert scale. This Questionnaire puts emphasis on the patients' concerns to detect dissatisfaction. But in our social context, understanding these subtle questions may prove difficult for the patients. The Consultation and Relational Empathy (CARE) Measure[23] is a person-centred process measure developed and researched at the Departments of General Practice in Glasgow University and Edinburgh University consisting of 10 questions, which measures empathy in the context of the therapeutic relationship during a one-on-one consultation between a clinician and a patient. Since we needed a measure that was more relevant to anaesthesia services and to evaluate the patients satisfaction with the various facets of anaesthesia at pre, intra and post-operative levels; we developed our own questionnaire with only 15 questions to suit our population, after incorporating validated questions used in the Northampton anaesthesia patient satisfaction survey. A shorter questionnaire that maintains a good level of validity and reliability with simple and easy-to-understand vocabulary is likely to be less of an imposition for patients who are asked to complete it[24].

Questionnaires specific to measure Patient satisfaction in certain areas of expertise also exist; such as for Maternal Satisfaction after Cesarean Section by Morgan et al[25]; after regional anaesthesia by Montenegro et al[26]; after monitored anaesthesia care by Dexter et al[27]; specific to pre-operative anaesthetist's visit by Snyder ramos et al[28] and for patients who underwent procedures under general anaesthesia by Auquier et al[29].

The optimal timing of administration of survey has not been determined. Increasing length of time between anaesthesia care and the administration of the survey can affect results due to several factors including recall bias and as more time progresses satisfaction scores correlate with the outcome of the procedure[30,31,32]. In our study we gave the questionnaires 24hrs after anaesthetic. Based on expert opinion, the American Society of Anaesthesiologists Committee on Performance and Outcomes Measurement determined that the survey should be administered within two weeks of discharge[33].

Sample size in our study was 58 patients. The number of patients, to be included in such studies are also of paramount importance in order to decrease sampling error, which is the difference between survey results from a sample and potential results achieved if every patient was included in the survey. According to a mathematical principle - the central limit theorem, a minimum of 30 responses should be used in data analysis by every provider to accurately estimate true population values regardless of patient panel size[34]. The industry standard for maximum acceptable margin of error is 14%, which means that the true population values are likely within 14% of the survey estimates for which a minimum of 50 survey responses are necessary per provider, this calculation based on average patient panel size of 2300 at 95% confidence limit, maximised standardised error and a finite population correction[35,36,37].

A pre - operative visit by the anaesthesiologist is very important. A friendly anaesthetist, who explains the techniques, clears the patient's doubts and helps in choosing the anaesthesia is very comforting for the patient. In addition to anxiolytic medications, this empathetic approach, responsiveness and counselling goes a long way in allaying the patient's anxiety. In our study, 93.96% patients were satisfied with the pre - operative evaluation by the anaesthesiologist compared to 90.1% reported by Onyekwulu et al[38] and 91% reported by Dodds et al[39].

Patients privacy, especially concerning undressing during the screening process is a sensitive issue. This has been addressed in conferences and previous studies too[40,41]. 7 patients in our study complained of lack of privacy regarding undressing in the operating room, as they were surrounded by nurses and technicians. All patients were satisfied with the other parameters giving an average of 96.98% intraoperative satisfaction score. Patients undergoing surgery are particularly vulnerable to their dignity being diminished and operating department staff should ensure that dignity is promoted through attention to patients' privacy and through interactions that help patients to feel comfortable, in control and valued[42]. Mui et al[24] showed that patients need more information and emotional support when undergoing regional anaesthesia than when undergoing general anaesthesia.

A post - operative visit, even if it is a single visit is mandatory in our hospital. Patients' perceptions of the anaesthetist and patient satisfaction with continuity of personal care by the attending anaesthetist were significantly increased by a single postoperative visit[43]. In our study, 89.48% did not have any complaints or express dissatisfaction regarding pain and other complications immediately after surgery.

A study by Tong etal[44] reported that intraoperative and postoperative adverse outcomes were the major causes of dissatisfaction with anaesthesia. In a study by Alsaif etal[45], the overall satisfaction level was moderate (56.5%) with nearly half of the patients dissatisfied with their anaesthetic care due to different reasons. Nausea and vomiting control was the most common postoperative reasons for dissatisfaction followed by pain control with 35.6% and 31.7%, respectively. Royce etal[46] have found that incomplete recovery from various postoperative recovery domains does not always influence patient satisfaction.

Our calculated overall average satisfaction score is at 94.64%. But when asked "Are you satisfied with anaesthesia service", 57 patients (98.28%) had ticked 'Yes' for an answer. Other studies have reported satisfaction scores of 96.8% (Myles et al[47]) and 88.4% (onyekwulu et al[38]). In another study[48] to assess non - random variation in patient satisfaction as determined by Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) 9,34,800 patient

surveys were estimated from a total of 3907 participating hospitals. They found overall average satisfaction score was 68.8%. Capuzzo et al[49] have found that the satisfaction rating could be improved by giving written anaesthesia information leaflet to patients during the preoperative visit and enhancing postoperative visits.

Communication skills can enhance medical practice and improve patient outcomes[50]. Anaesthetists must be able to build a trustworthy relationship with patients by being compassionate, provide necessary information regarding techniques & complications, and involve patients in decision making about choice of anaesthesia care. As early as 1960 it had been recognized that patients perceive anaesthetic care poorly, often describing anaesthetists as impersonal and not "real" physicians[51]. But now over the years, this perception is slowly changing and anaesthesiologists are being given due recognition for their contribution; partly due to advances in anaesthesia, their multiple roles outside the operating suite and partly their development of soft skills; eventually society perceiving them as a peri - operative physicians.

CONCLUSION:

Amongst a host of factors that affect patient satisfaction scores, level of organization of the anaesthesia service in the centre, the communication abilities and soft skills of the anaesthesiologist are also of paramount importance. Every provider should survey patient satisfaction, as it gives valuable inputs for adaptation and quality development in health care.

REFERENCES:

1. Porter ME, Teisberg EO. How physicians can change the future of health care. Journal of the American Medical Association 2007; 297: 1103–11.
2. Heidegger, Thomas & Saal, D & Nübling, Matthias. Patient satisfaction with anaesthesia - Part 1: Satisfaction as part of outcome - And what satisfies patients. Anaesthesia. (2013). 68. 10.1111/anae.12347.
3. Eagle C, Davies J. Current models of "quality" – an introduction for anaesthetists. Can J Anaesth 1993;40:851-862.
4. Bell DM, Halliburton JR, Preston JC: An evaluation of anaesthesia patient satisfaction instruments. AANA J 2004; 72:211–7
5. Porter ME. What is value in health care? New England Journal of Medicine 2010; 363: 2477–81. 25.
6. Moonesinghe SR, Tomlinson AA: Quality improvement and revalidation: Two goals, same strategy? Br J Anaesth 2011; 106:447–50
7. Revalidation. The Royal College of anaesthetists. http://www.rcoa.ac.uk/index.asp?PageID=1393
8. Vuori H. Patient satisfaction – does it matter? International Journal for Quality in Health Care 1991; 3: 183–9
9. Aharony L, Strasser S. Patient satisfaction: what we know and what we still need to explore. Medical Care Review 1993; 50: 49–79. 28. Baker R. Pragmatic model of patient satisfaction in general practice: progress towards a theory. Quality in Health Care 1997; 6:
10. Calman M. Towards a conceptual framework of lay evaluation of health care. *Social Science and Medicine* 1988; **27**: 927–33
11. Pascoe GC: Patient satisfaction in primary health care: A literature review and analysis. Eval Program Plann 1983; 6:185–210
12. Jaipaul C, Rosenthal G. Are older patients more satisfied with hospital care than younger patients. *J Gen Intern Med.* 2003;18:23–30. [PMC free article] [PubMed] [Google Scholar]
13. DeVoe, J. E., Wallace, L. S., & Fryer, G. E., Jr. Patient age influences perceptions about health care communication. *Family medicine*, (2009) *41*(2), 126–133.
14. Naidu, Aditi. Factors affecting patient satisfaction and healthcare quality. International journal of health care quality assurance. (2009). 22. 366-81. 10.1108/095268609 10964834.
15. Tucker, J. III and Adams, S.R., "Incorporating patients' assessments of satisfaction and quality: an integrative model of patients' evaluations of their care", Managing Service Quality, (2001)Vol. 11 No. 4, pp. 272-86
16. Tucker, J. "The moderators of patient satisfaction", Journal of Management in Medicine, (2002), Vol. 16 No. 1, pp. 48-66.
17. Geyer S. *Forschungs methoden im Gesundheitswesen. Weinheim, Germany: Juventa Verlag,* 2003.
18. *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; 45:65–72*
19. Fung D, Cohen MM: Measuring patient satisfaction with anesthesia care: A review of current methodology. Anesth Analg 1998; 87:1089–98
20. Bothner U, Schwilk B, Steffen P, Eberhart LH, Becker U, Georgieff M: [Perioperative monitoring of the course of anesthesia, the postanesthesia visit and inquiry of patient satisfaction. A prospective study of parameters in process and outcome quality in anesthesia]. Anasthesiol Intensivmed Notfallmed Schmerzther 1996; 31:608–14
21. Schiff JH, Fornaschon AS, Frankenhauser S, *et al.* The Heidelberg Peri-anaesthetic Questionnaire – development of a new refined psychometric questionnaire. *Anaesthesia* 2008; **63**: 1096–104
22. J. N. Wilkinson, P. M. Slater, A reply, Anaesthesia 2012, 10.1111/j.1365-2044.
23. Mercer SW, Maxwell M, Heaney D, Watt GC. The consultation and relational empathy (CARE) measure: development and preliminary validation and reliability of an empathy-based consultation process measure. Fam Pract. 2004 Dec;21(6):699-705. doi: 10.1093/fampra/cmh621. Epub 2004 Nov 4. PMID: 15528286.
24. Mui WC, Chang CM, Cheng KF, Lee TY, Ng KO, Tsao KR, Hwang FM: Development and validation of the questionnaire of satisfaction with perioperative anesthetic care for general and regional anesthesia in Taiwanese patients. Anesthesiology 2011; 114:1064–75
25. Morgan PJ, Halpern S, Lo J: The development of a maternal satisfaction scale for caesarean section. Int J Obstet Anesth 1999; 8:165–70
26. Montenegro A, Pourtalés MC, Greib N, End E, Gaertner E, Tulasne PA, Pottecher T: [Assessment of patient satisfaction after regional anaesthesia in two institutions]. Ann Fr Anesth Reanim 2006; 25:687–95
27. Dexter F, Aker J, Wright WA: Development of a measure of patient satisfaction with monitored anesthesia care: The Iowa Satisfaction with Anesthesia Scale. Anesthesiology 1997; 87:865–73
28. Snyder-Ramos SA, Seintsch H, Böttiger BW, Motsch J, Martin E, Bauer M: [Development of a questionnaire to assess the quality of the preanesthetic visit]. Anaesthesist 2003; 52:818–29
29. Auquier P, Blache JL, Colavolpe C, Eon B, Auffray JP, Pernoud N, Bruder N, Gentile S, François G: [A scale of perioperative satisfaction for anesthesia. I—Construction and validation]. Ann Fr Anesth Reanim 1999; 18:848–57
30. Ley P, Kinsey J, Atherton S. increasing patients' satsifaction with communication. Fr J Soc Clin Psychol 1976;15:403-413.
31. Hedegger T, Saal D, Nuebling M. Patient satisfaction with anaesthesia care: what patient is patient satisfaction, how should it be measured, and what is the evidence for assuring high patient satisfaction? Best Pract Res Clin Anaesthesiol 2006;20:331-346.
32. Lemos P, Pinto A, Morais G, et al. Patient satisfaction following day surgery. J Clin Anesthesia 2009;21:200-205.
33. Jay Mesrobian, Sheila R. Barnett; Patient Satisfaction and Anesthesiology: An Update From the ASA Committee on Performance and Outcomes Measurement. *ASA Monitor* 2019; 83:32–34
34. Norwood SL. *Research Strategies for Advanced Practice Nurses*. Upper Saddle River, N.J.: Prentice Hall Inc.; 2000.
35. Alexander GC, Kurlander J, Wynia MK. "Physicians in retainer ('concierge') practice: A national survey of physician, patient and practice characteristics." *J Gen Intern Med.* August 2005; 20(12): 1079-1083.
36. Rebeeca Ross. Determine provider-level sample sizes for patient satisfaction surveys. MGMA. Insight 2016. Article 1
37. Kish L. *Survey Sampling*. New York: John Wiley & Sons Inc.; 1995.
38. Onyekwulu FA. Measuring patient satisfaction with anaesthesia care in Enugu: a preliminary study. J. Coll. Med., December 2009: 14 (2)
39. Dodds CP, Harding MI, More DG. Anaesthesia in an Australian private hospital: the consumer's view. Anaesth Intensive Care 1985; 13: 325–329
40. Silvestro, R. (2005), "Applying gap analysis in the health service to inform the service improvement agenda", International Journal of Quality & Reliability Management, Vol. 22 No. 3, pp. 215-33.
41. Andrew powell. Confidentiality in operating theatres: a survey of practice. Euro anaesthesia 2017. http://euroanaesthesia2017.esahq.org/
42. Baillie L, Ilott L. Promoting the dignity of patients in perioperative practice. J Perioper Pract. 2010 Aug;20(8):278-82. doi: 10.1177/175045891002000802. PMID: 20860187.
43. Saal D, Heidegger T, Nuebling M, Germann R. Does a postoperative visit increase patient satisfaction with anaesthesia care? British Journal of Anaesthesia 2011; 107: 703–9.
44. Tong D, Chung F, Wong D. Predictive factors in global and anesthesia satisfaction in ambulatory surgery patients. Anesthesiology 1997; 87: 856-864.
45. Alsaif, Abdulrahman & Alqahtani, Saleh & Alanazi, Farhan & Alrashed, Faris & Almutairi, Abdullah. Patient satisfaction and experience with anesthesia: A multicenter survey in Saudi population. Saudi Journal of Anaesthesia. (2018). 12. 304. 10.4103/sja.SJA_656_17.
46. Royse CF, Chung F, Newman S, Stygall J, Wilkinson DJ: Predictors of patient satisfaction with anaesthesia and surgery care: A cohort study using the Postoperative Quality of Recovery Scale. Eur J Anaesthesiol 2013; 30:106–10
47. 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: 6–10.
48. McFarland DC, Ornstein KA, Holcombe RF, Patient Satisfaction Variance Prediction. *J. Hosp. Med* 2015;8;503-509. doi:10.1002/jhm.2371
49. Capuzzo M et al. Factors Predictive of Patient Satisfaction with Anesthesia. Anesth Analg 2007; 105: 435-442.
50. Smith AF, Shelly MP. Communication skills for anaesthetists: a practical introduction. Canadian Journal of Anesthesia 1999; 46: 1082–88.
51. Klock P, Roizen M. More or better- educating the patient about the anesthesiologists role as a perioperative physician. Anesth Analg 1996;83:671-2.