

Original Research

Assessment of patients' satisfaction with pre-anesthetic checkup in a medical college teaching hospital

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ABSTRACT:

Background: This study aimed to assess the level of patient satisfaction with the preoperative anesthetic evaluation provided in a tertiary level and identify factors leading to dissatisfaction that could be addressed to improve patient care and experience. A proper pre-anesthetic consultation has been linked to improved patient compliance and satisfaction with the care they received. **Method:** The study was a cross-sectional questionnaire-based study conducted from November 2022 to January 2023 at Patan Hospital, Patan Academy of Health Sciences, Nepal, with a sample size of 370 adult patients above 18 years old undergoing elective surgeries. The questionnaire used in the study was divided into three sections. The first section consisted of sociodemographic data, the second section had yes/no questions related to pre-anesthetic assessment, and the third section assessed patients' satisfaction using a three-point Likert scale with Dissatisfied, Not sure, and Satisfied. Not sure and dissatisfied were classified as dissatisfied during tabulation. **Result:** The results of the study showed that the majority of patients were happy with the amount of time spent and the explanations provided during the pre-anesthetic checkup. After the preanesthetic consultation, the majority of patients claimed to feel less worried, and overall satisfaction was also very high. Among the 370 participants, 165 (44.6%) were male, and 205 (55.4%) were female, and the mean age of the participants was 38.11 (± 15.796). Most of the patients, 228 (61.6%), were in the age group of >18 to 39. A total of 309 patients were satisfied with the explanations given to them during the preanesthetic consultation, among which 198 (64.08%) were from >18 to 39 age group. **Conclusion:** The study suggests that preoperative anesthesia assessment is an important interaction between the patient and the anesthetist that allows the anesthetist to properly assess the patient's medical condition and also helps the patient get a clear understanding of the planned anesthesia and the complications that might arise in the perioperative period. It also suggests that providing adequate information about anesthesia and surgery can decrease preoperative and postoperative anxiety.

Keywords: Pre-anesthetic checkup, Pre-anesthetic consultation, patient satisfaction

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INTRODUCTION

The preoperative evaluation of a surgical patient by an anesthetist is an important interaction between the patient and the anesthetist. This evaluation allows the anesthetist to properly assess the patient's medical condition and also helps the patient get a clear understanding of the planned anesthesia and the complications that might arise in the perioperative period.

Preoperative and postoperative anxiety, pain and complications are decreased in subjects who receive adequate information about anaesthesia and surgery. Factual knowledge of anaesthesia improves

compliance with perioperative instructions and facilitates informed consent.¹

Patient satisfaction about preoperative anesthesia assessment is an important indicator of quality health-care service. Satisfaction commonly refers to how well the patient's expectations about the services of medical care have been met.² The concept of satisfaction is not easy to define and is influenced by cultural, socio-demographic, cognitive and affective factors. Hence it is a subjective and complex concept.³ It was found that patient satisfaction with preanesthetic checkup (PAC) was low in compared to Royal College of Anaesthetists Standards in a study done on a study done at Gondar, Ethiopia.⁴ Similarly

a study done in India revealed that there is a need for improvement in the management of PAC services to ensure increasing satisfaction of patients.⁵ Similar studies are needed in Nepal to assess patient satisfaction as no published data on such topic in Nepal is available. Thus, this study will be conducted with the aim to determine the level of patient satisfaction with the preoperative anesthetic evaluation provided in tertiary level hospital and identify factors leading to dissatisfaction which could be preventable or addressed to improve patient care and experience.

METHODS

This is a cross sectional questionnaire based study conducted from November 2022 to January 2023 at the Patan Hospital, Patan Academy of Health Sciences (PAHS), Nepal after ethical clearance obtained from the Institutional Review Committee of PAHS. Sample size was calculated by using, $N = Z^2pq/e^2$ ($N = 1.96 \times 1.96 \times 0.4 \times 0.6 / 0.05 \times 0.05 = 368$).⁵

The study population included 370 adult patients above 18 years old undergoing elective surgeries admitted in different departments of the hospital. Those patients who were not willing to take part in the study, patients posted for emergency surgery, sick patients requiring ICU admission, patients unable to communicate, and patients with linguistic barriers were all excluded from the study.

The study instrument was a predesigned questionnaire adopted from questions validated in previous similar studies and guidelines from the UK.^{6,7} The questionnaire was translated to Nepali language by the faculties of Anesthesia Department. The questionnaire consists of three sections. The first section has sociodemographic data, second section has yes/no questions related to preanesthetic assessment and the third section assesses patients' satisfaction using a three-point Likert scale with Dissatisfied, Not sure and Satisfied. Not sure and dissatisfied was classified as dissatisfied during tabulation.

The patients who had completed formal education were asked to complete the questionnaire. The patients who had no formal education were interviewed by medical officers of Surgical ICU not involved in the patient's preoperative anesthetic assessment. Data was collected in the morning of surgery while they are waiting for their turn in the Surgery, Gynaecology & Obstetric, Orthopedics, ENT, Dental, Eye wards. The medical officers were briefed before the study period on how to make each question or piece of information clear to the respondents during the interview. After completion, filled questionnaires were handed over to the Principal Investigator, study-data was stored in password protected computer to maintain the confidentiality of the patient.

Collected data was analyzed by means of SPSS 20. Association between patient satisfaction and each variable of patients' demography (Age, sex and patient's education) was compared by Chi-square test with $P < 0.05$ as statistically significant. Patient perception regarding the preanesthetic checkup was tabulated as frequency and percentage where response to questionnaire as Not sure and No was merged as No for analysis.

RESULTS

Among 370 participants; 165 (44.6%) were male and 205 (55.4%) were female. The mean age of the participants was 38.11 (± 15.796).

The majority of patients were happy with the amount of time spent and the explanations provided during PAC. After PAC, the majority of them claimed to feel less worried, and overall satisfaction was also very high. (Table 1)

Most of the patients, 228 (61.6%) were in the age group of >18 to 39. A total of 309 patients were satisfied with the explanations given to them during PAC, among which 198 (64.08%) were from >18 to 39 age group and this was statistically significant ($p = 0.0001$). (Table 1)

Table 1: Age wise distribution of patients' satisfaction with preanesthetic checkup

	Age in years	Satisfied		Dissatisfied		x ²	p
		Frequency	Percentage	Frequency	Percentage		
Are you satisfied with the time given during the preanesthetic consultation?	>18 to 39	200	62.31	28	57.14		
	40 to 59	86	26.79	12	24.49		
	>60	35	10.90	9	18.37		
	Total	321		49			
Are you satisfied with the explanations given to you?	>18 to 39	198	64.08	30	49.18	17.86	0.0001*
	40 to 59	84	27.18	14	22.95		
	>60	27	8.74	17	27.87		
	Total	309		61			
Were you less anxious after preanesthetic	>18 to 39	166	63.12	62	57.57		

consultation?	40 to 59	70	26.62	28	26.00		
	>60	27	10.27	17	15.78		
	Total	263		107			
Are you satisfied with the preanesthetic consultation?	>18 to 39	199	63.99	29	49.15		
	40 to 59	79	25.40	19	32.20		
	>60	33	10.61	11	18.64		
	Total	311		59			

*statistically significant

Above table shows that patients' satisfaction with the explanations given during preanesthetic checkup shows statistically significant association with the age group of the patients ($p=0.0001$). Age group does not show any significance with other questionnaires asked with the age group of patients.

Most of the patients, 51.6% had completed Secondary level (grade 9-12). Patients with basic education (grade 1-8) were 15.9%, above secondary (above grade 12) were 23.5% and 8.9% had non-formal education (not attended any formal education). Among

the 309 patients who said they were satisfied with the explanations given to them during PAC, 53.07% were patients who had completed a secondary level of education and this was statistically significant. 55.3% of the 264 patients who reported feeling less worried after receiving PAC had at least a secondary education, and this was statistically significant. Similarly, a statistically substantial percentage (54.34%) of the 311 patients who indicated they were overall satisfied with PAC had at least a secondary education. (Table 2)

Table 2: Education level wise distribution of patients' satisfaction with preanesthetic checkup

	Education	Satisfied		Dissatisfied		χ^2	p
		Frequency	Percentage	Frequency	Percentage		
Are you satisfied with the time given during the preanesthetic consultation?	Basic	52	16.20	6	12.24		
	Secondary	166	51.71	25	51.02		
	Above secondary	77	23.99	10	20.41		
	Non formal	26	8.10	8	16.33		
	Total	321		49			
Are you satisfied with the explanations given to you?	Basic	45	14.56	13	21.31	30.414	0.0001*
	Secondary	164	53.07	27	44.26		
	Above secondary	82	26.54	5	8.20		
	Non formal	18	5.83	16	26.23		
	Total	309		61			
Were you less anxious after preanesthetic consultation?	Basic	34	12.88	24	22.43	13.341	0.004*
	Secondary	146	55.30	45	42.06		
	Above secondary	65	24.62	22	20.56		
	Non formal	18	6.82	16	14.95		
	Total	264		107			
Are you satisfied with the preanesthetic consultation?	Basic	37	11.90	21	35.59	30.176	0.0001*
	Secondary	169	54.34	22	37.29		
	Above secondary	81	26.05	6	10.17		
	Non formal	24	7.72	10	16.95		
	Total	311		59			

*statistically significant

Basic level education: Defined as one who has attended schooling from Grade 1-8, **Secondary level education:** Defined as one who has attended schooling from Grade 9-12, **Above secondary level:** Above Grade 12 & **Non-formal education:** Defined as those who haven't attended formal schooling. Based on results of table 2, education level has significant association between patients' satisfaction

with anxiety, explanations of the procedures and the preanesthetic consultation. ($p=0.004$, $p=0.0001$ and $p=0.0001$ respectively). However our study does not show an association between patients' satisfaction and time given during PAC based on the education status of the patients.

All 370 patients said they were satisfied with the way their medical history was taken, 98.9% said they were

satisfied with their physical examination, 99.7% said they were satisfied with the instructions regarding preoperative fasting, and 92.2% said they were

satisfied with the information provided regarding the type of anesthesia they would receive during the procedure. (Table 3)

Table 3: Patients' perspective regarding the preanesthetic check up

	Frequency	Percentage
Are you satisfied with History taken?		
Yes	370	100
No	0	0
Are you satisfied with your physical examination?		
Yes	366	98.9
No	4	1.1
Are you satisfied with the fasting instructions given to you?		
Yes	369	99.7
No	1	0.3
Are you satisfied with the information given to you about type of anesthesia?		
Yes	341	92.2
No	29	7.8
Are you satisfied with the information given to you about postoperative complications?		
Yes	281	75.9
No	89	24.1
Are you satisfied with the information given to you about postoperative analgesia?		
Yes	67	18.1
No	303	81.9
Are you satisfied with the information given to you about Post-Operative Nausea Vomiting?		
Yes	28	7.6
No	342	92.4

DISCUSSION

The mean age of the participants in our study was 38.11 (± 15.796). The overall patients' satisfaction with the preanesthetic consultation is 84.05% which is higher compared to study by Gebremedhn EG, Nagaratnam V4. This could be as a result of the greater percentage of our patients having secondary or higher education qualifications (75.1%, n=370). But it is lower in comparison to study conducted in Greece. This contrast may be the result of Greece's meticulous preoperative patient assessment and postoperative patient management plan as claimed in their study.⁸ Most patients expressed satisfaction with the length of time spent and the explanations given during PAC. Among the 309 patients (83.51%, n=370) who said that they were satisfied with the explanations given to them during PAC, 64.08% were from >18 to 39 age group and 53.07% had a secondary level of education. Our study showed higher percentage of patients were satisfied with the time spent during PAC (86.75% vs 73.5%), explanations given during PAC (83.51% vs 64.7%) and less anxious after PAC (71.35% vs 64.7%) as compared to study by Gebremedhn EG, Nagaratnam V.4 In our study population, preanesthetic consultation (PAC) appears to reduce preoperative anxiety in 71.35% of the cases, which

can be attributed to the sufficient time and clear explanations provided during PAC. The lack of proper information provided regarding postoperative events and management may be to blame for the remaining populations' anxiety.

Even though nearly all the patients were satisfied with the history taken (100%), physical examination (98.9%), fasting instructions given during PAC (99.7%) and information given about type of anesthesia (92.2%), very low percentage of patients were satisfied with the information given about postoperative analgesia (18.1%) & postoperative nausea vomiting (7.6%). About 75.9% patients were satisfied with information about postoperative complications given during PAC. It indicates that the information regarding postoperative events received little attention during PAC. All the above patients' perspectives as shown in table 3 are higher in comparison to the study by Gebremedhn EG, Nagaratnam V4 but still it doesn't meet the Royal College of Anaesthetists' preoperative anesthetic evaluation standards.⁶

In a review by Thiedke, the most consistent finding is the one that deals with age, since older patients appear to be more satisfied with health care. She also notes that "most studies have found that individuals of

lower socioeconomic status and less education tend to be less satisfied with their health care.”⁹ Our study also agrees with this review where education level has shown statistical significance with the patient's satisfaction on most aspects of the pre-anesthetic consultation, however, socioeconomic status of the patients were not assessed in our study.

CONCLUSION

The majority of patients were happy with the amount of time spent and the explanations provided during PAC. After PAC, the majority of them claimed to feel less worried, and overall satisfaction was also very high(84.05%). There was reasonably good performance in the areas of history taking, physical examination, preoperative fasting instructions, and information on the type of anesthetic. However, there is room for improvement in the area of providing details about postoperative events to the patients.

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CONFLICT OF INTEREST

None

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