TPM Vol. 32, No. S5, 2025
ISSN: 1972-6325
https://www.tpmap.org/

Open Access

ASSESSMENT OF PATIENT SATISFACTION IN AMBULATORY ANAESTHESIA USING THE HEIDELBERG PERI-ANAESTHETIC QUESTIONNAIRE: A CROSS-SECTIONAL STUDY

RISHENDHAR S[1], JAYASHREE S[1], MALAIARASAN S[1], VIJAY A[1], K.S.SRIDEVI SANGEETHA[1]
[1]MEENAKSHI COLLEGE OF ALLIED HEALTH SCIENCES, MEENAKSHI ACADEMY OF HIGHER EDUCATION & RESEARCH. TAMIL NADU, INDIA

Abstract
Ambulatory anesthesia has become an integral component of modern perioperative care, paralleling the rapid global expansion of outpatient surgical practices. The shift from traditional inpatient surgery to same-day discharge procedures has been driven by advances in anesthetic agents, minimally invasive surgical techniques, and enhanced recovery protocols. These developments have made it possible to perform a wide variety of surgical procedures in ambulatory settings while maintaining high standards of safety and efficiency. Patient selection is a critical factor in determining the success of ambulatory anesthesia, as careful evaluation of comorbidities, functional status, and perioperative risk helps optimize outcomes and resource utilization (1).

Keywords Assessment,satisfaction

INTRODUCTION

The success of ambulatory anesthesia is not only defined by clinical safety but also by **patient satisfaction**, which has emerged as a key indicator of healthcare quality. Increasingly, healthcare systems are incorporating patient-reported outcomes into service evaluations, emphasizing the importance of the patient's perspective in guiding quality improvement strategies (2). Patient satisfaction in anesthesiology reflects multiple dimensions, including preoperative communication, anxiety relief, intraoperative comfort, postoperative pain control, and the prevention of side effects such as nausea and vomiting. High satisfaction is associated with better compliance, smoother recovery, and improved trust in the healthcare system.

Several studies have demonstrated that ambulatory procedures yield high levels of patient satisfaction when appropriate selection, preoperative evaluation, and perioperative management are undertaken. For example, prospective studies in gynecological procedures such as ambulatory hysteroscopy have highlighted not only economic benefits but also high satisfaction rates, demonstrating that well-planned day-care anesthesia can improve both patient experience and hospital efficiency (3). Nonetheless, patient satisfaction may vary across different peri-anesthetic phases—preoperative, intraoperative, and postoperative—depending on communication, comfort, and recovery experiences.

To objectively assess patient satisfaction, validated tools are essential. The **Heidelberg Peri-anaesthetic Questionnaire (HPQ)**, developed and psychometrically tested in large patient cohorts, provides a structured and reliable method for measuring satisfaction across five domains: trust and atmosphere, fear, discomfort, treatment by personnel, and information and waiting (4). Its multidimensional nature allows for identification of specific peri-anesthetic factors influencing patient experience and offers valuable feedback for targeted quality improvement(5).

In this context, the present study seeks to assess **patient satisfaction with ambulatory anesthesia using the HPQ** and to identify peri-anesthetic factors that influence the overall patient experience in outpatient surgical settings. Furthermore, satisfaction will be evaluated across different phases of the peri-anesthetic journey—preoperative, intraoperative, and postoperative—thereby providing a comprehensive understanding of patient perceptions and guiding strategies to enhance the quality of care in ambulatory anesthesia practice.

MATERIALS AND METHODS

Institutional Ethical Committee clearance was obtained prior to the commencement of the study (**IEC Approval No: MMCH&RI/UG/AHS/25/MAY/25**)
This prospective cross-sectional observational study was conducted at Meenakshi Medical College Hospital and Research Institute (MMCHRI) over a period of three months. A total of 96 adult patients undergoing elective ambulatory surgical procedures under anesthesia were included. Patients aged above 18 years who provided informed consent were eligible for participation. Individuals with cognitive or communication impairment, those with a history of neuropsychiatric illness, and patients undergoing emergency or inpatient surgical procedures were excluded.
Patient satisfaction was assessed using the **Heidelberg Peri-anaesthetic Questionnaire (HPQ)**, a validated tool consisting of 38 items distributed across five domains: trust and atmosphere, fear, discomfort, treatment by personnel, and information and waiting. The questionnaire was administered in the postoperative period prior to discharge through direct patient interviews to ensure clarity and completeness of responses. Demographic details, type of surgery, and anesthetic techniques were also recorded.
The primary outcome of the study was the overall level of patient satisfaction with ambulatory anesthesia. Secondary outcomes included the identification of peri-anesthetic factors influencing patient experiences and the assessment of satisfaction across the preoperative, intraoperative, and postoperative phases. Data were entered into Microsoft Excel, arranged in tabular form, and analyzed descriptively, with results expressed as frequencies and percentages.

RESULTS:

This Study involves 96 participants. The demographical details are collected and analysed. The gender wise distribution of participants and age-wise distribution is given in Table 1 and Figure 1 respectively.

GENDER	NO OF PATIENTS	PERCENTAGE
MALE	42	44%
FEMALE	54	56%
TOTAL	**96**	**100%**

TABLE: 1 GENDER DISTRIBUTION AMONG THE PATIENTS

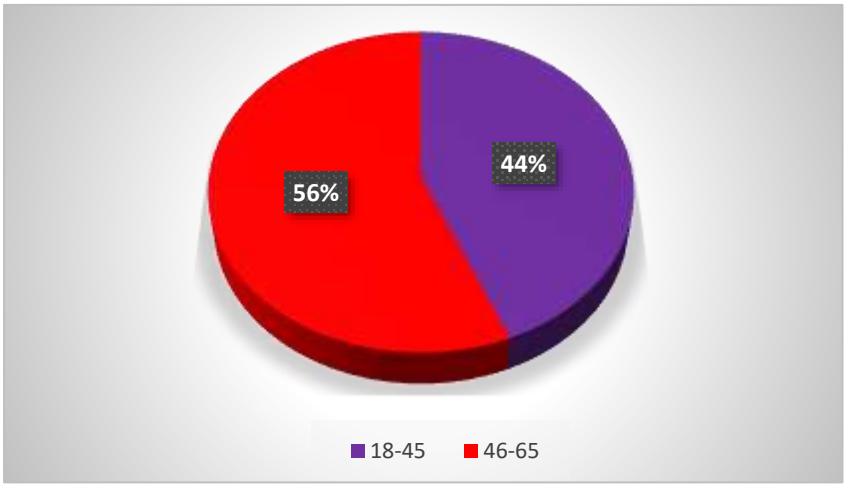

Figure 1: The age wise distribution of participants in Percentage is represented in Figure 1.

ASA GRADING DISTRIBUTION

ASA grading distribution of the study population is given in Table 2 & Figure 2

ASA GRADING	NO OF PATIENTS	PERCENTAGE%

I	22	23%
II	67	70%
III	7	7
TOTAL	**96**	**100%**

TABLE:2 ASA GRADING DISTRIBUTION IN PERCENTAGE

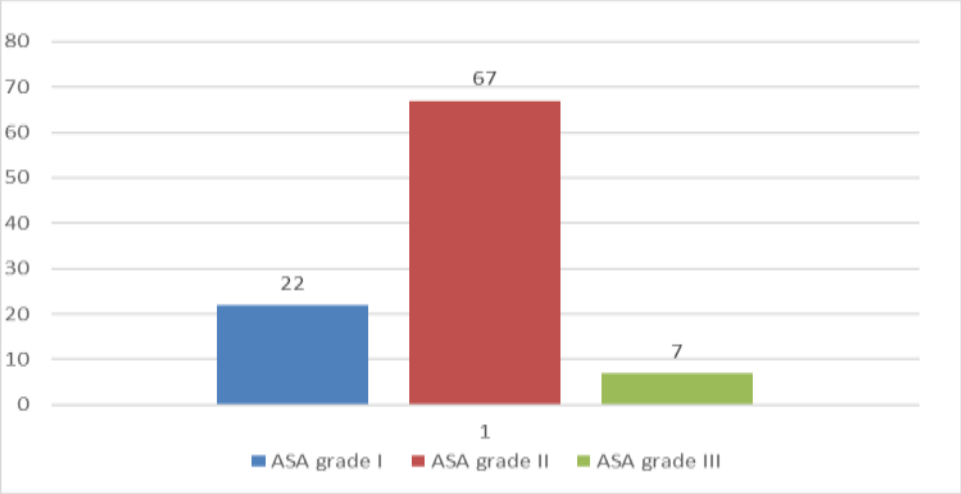

Figure: 2 ASA GRADING DISTRIBUTION IN PERCENTAGE

DISTRIBUTION OF SURGERY UNIT

The study population vs surgical unit is represented in the Figure 3

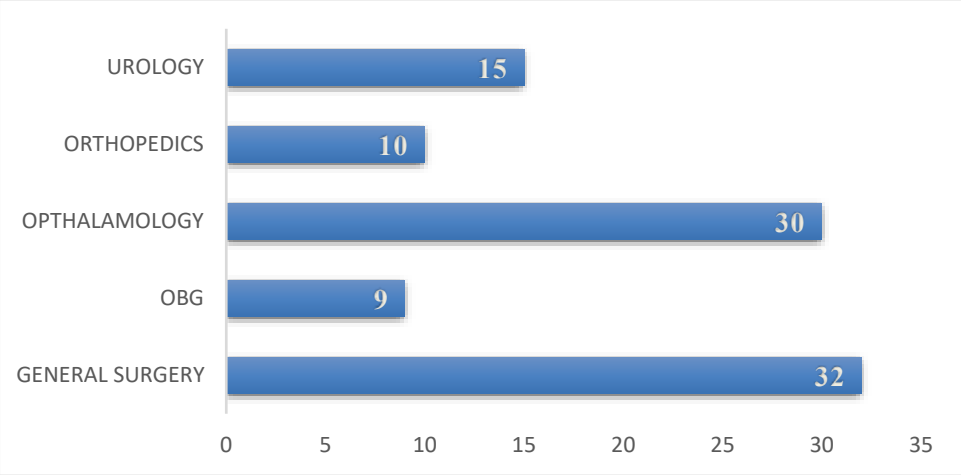

FIGURE: 3 DISTRIBUTION OF SURGERY UNIT. The values are represented in frequency(n).

FREQUENCY OF ANAESTHESIA TYPE

The study population categorised based on the anaesthesia type are given in Table 3

FREQUENCY OF ANASTHESIA TYPE	NO OF PATIENTS	PERCENTAGE%
GENERAL	24	25%
LOCAL	44	46%
PERIPHERAL BLOCK	1	1%

REGIONAL BLOCK	27	28%
TOTAL	**96**	**100%**

The patient satisfaction for the questionnaire is categorized in to Preanesthetic consultation, perioperative and postoperative recovery and the results are given in Figure 4, 5 and 6 respectively.

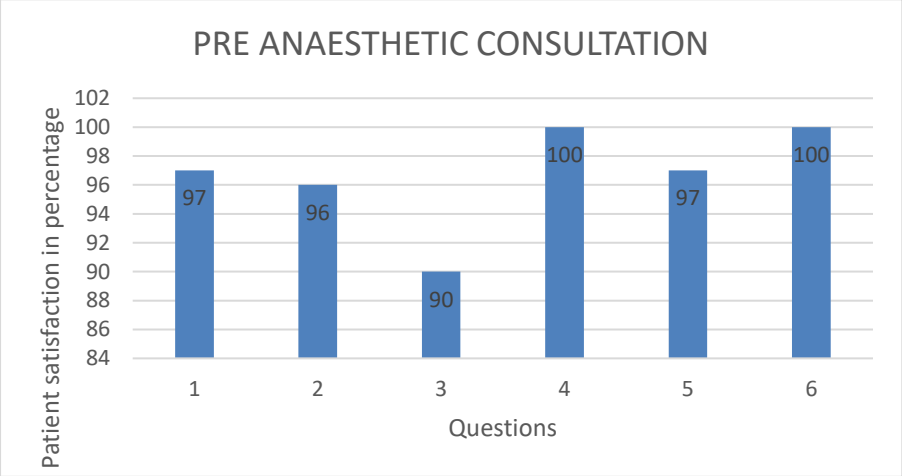

Figure : 4 Patient satisfaction response Versus Preanesthetic consultation in Ambultory Anaesthesia (Question1 to Question 6)

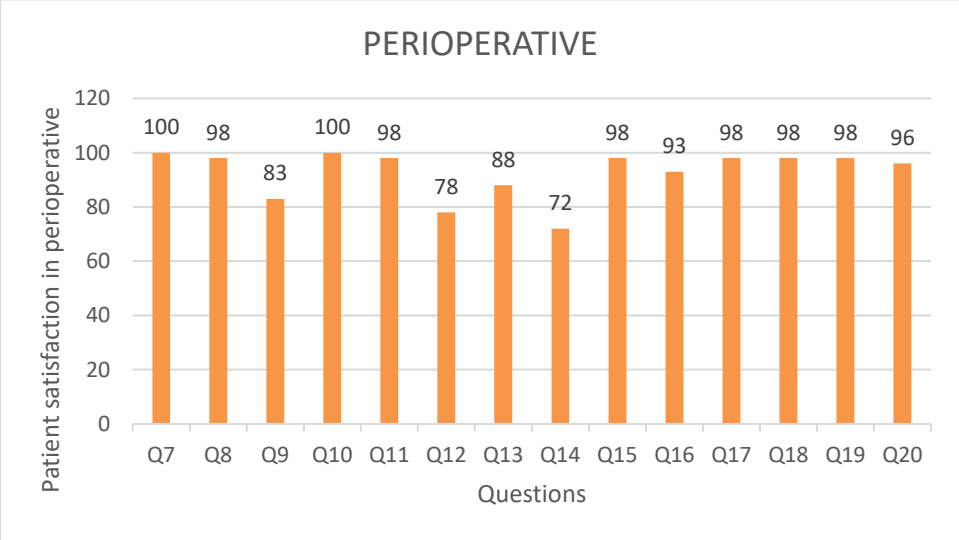

Figure : 5 Patient satisfaction response Versus perioperative period assessment in Ambultory Anaesthesia (Question 7 to Question 20)

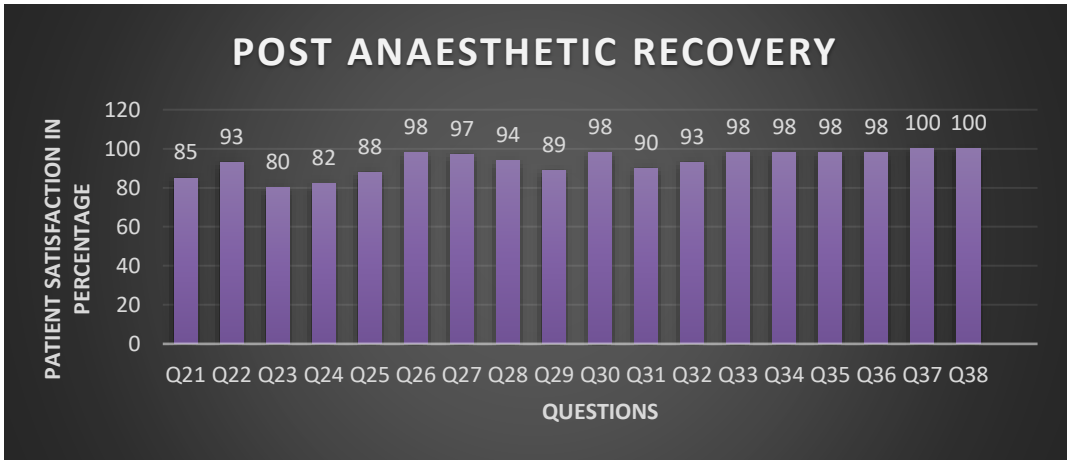

Figure : 6 Patient satisfaction response Versus post operative recovery in Ambultory Anaesthesia (Question 21 to Question 38)

DISCUSSION

The present study highlights important demographic and clinical characteristics of the study population, along with their perioperative experiences and satisfaction levels. A higher proportion of female participants (56%) was observed, suggesting gender-related differences in healthcare-seeking behavior or surgical caseload distribution. The majority of patients belonged to the middle-aged group (46–65 years, 56%), reflecting the higher prevalence of surgical needs in this population. With regard to ASA grading, most participants were classified as ASA Grade II (69.8%), indicating that the study primarily included patients with mild systemic disease, a finding consistent with surgical cohorts in similar settings. The distribution of surgical units showed predominance of cases in General Surgery, while Obstetrics and Gynaecology accounted for the least, underscoring differences in case load patterns. Local anaesthesia emerged as the most frequently used technique, possibly due to the relatively lower risk profile and suitability for minor to moderate procedures. Patient-reported outcomes further revealed high levels of satisfaction during pre-anaesthetic consultation (particularly in Q4 and Q6), perioperative care (notably Q7 and Q10), and post-anaesthetic recovery (Q37 and Q38). However, lower satisfaction scores observed in Q3, Q14, and Q23 suggest specific aspects of communication, intraoperative experience, or recovery management that warrant targeted improvement. Overall, the findings emphasize the importance of patient-centered perioperative care, highlighting strengths in anaesthetic practice while identifying opportunities for refinement to further enhance patient satisfaction.

CONCLUSION:

The present study concludes that ambulatory anaesthesia provides a high level of patient satisfaction, as reflected in responses to the Heidelberg Peri-anaesthetic Questionnaire. The majority of participants were middle-aged females and categorized under ASA Grade II, undergoing various surgical procedures, most commonly under local anaesthesia. The findings revealed consistently high satisfaction across the pre-anaesthetic, perioperative, and post-anaesthetic phases, particularly in aspects related to care quality and recovery experience. However, areas such as pre-operative communication and intraoperative support reflected relatively lower satisfaction, indicating the need for targeted improvements.

REFERENCES

1. Hodgson JA, et al. Patient selection in ambulatory surgery. *Best Pract Res Clin Anaesthesiol.* 2023.
2. Bello C, et al. Patient satisfaction in anesthesiology: a narrative review. *Curr Opin Anaesthesiol.* 2023.
3. Nanayakkara P, et al. Increasing the adoption of ambulatory hysteroscopy in Australia – cost comparisons and patient satisfaction. *J Obstet Gynaecol.* 2022.
4. Schiff JH, et al. The Heidelberg Peri-anaesthetic Questionnaire—development of a new refined psychometric questionnaire. *Anaesthesia.* 2008.