

## The Quality of the Anesthesia Service through a General Assessment and Knowledge of Patient Satisfaction

Dr. Ahmed Khamis Mohammed

M.B.Ch.B. \ F.I.C.M.S. \ (Anesthesiologist), Ministry of Higher Education and Scientific Research, Al-Iraqia University, Medical College, Pharmacology Department, Baghdad, Iraq

**Abstract: Background:** Patient satisfaction is a complex concept determined by multiple factors that include pre-anesthetic, during anaesthesia, and post-anaesthesia wake-up phases; Anxiety before anaesthesia and pain control after surgery are some of the important aspects in treating patients and are associated with the successful recovery and degree of satisfaction. **Objective:** To determine the level of satisfaction with anaesthesia and its associated factors in patients undergoing surgical procedures **Method:** In this study, a questionnaire was conducted and distributed to 80 patients in different hospitals in Iraq. Patients whose ages ranged from 15 to 45 years were recruited for the purpose of knowing the quality of the anaesthesia service through a general assessment and knowledge of patient satisfaction. **Results:** In this research, the ages ranged between 14-45 years, and the most frequent ages in this study were from 25-34 years, distributed to 12 male patients and 19 female patients. Most of the patients surveyed (80%) were very satisfied with the anaesthesia with regard to postoperative pain; 77 patients reported being completely satisfied with mild or no pain, three patients with moderate pain, and four patients with 5% reported nausea or vomiting in the postoperative period. 84.1% of patients reported being evaluated by an anaesthesiologist, 73.9% considered their concerns resolved, and five patients reported with 6.25% Discomfort sore throat and from Tube endotracheal when awake to patient..

**Keywords:** Satisfaction, Discomfort, Anaesthetic, Anaesthesia, Pain, Assessment.

### INTRODUCTION

Quality of health is defined as the ability of systems to reach levels of improvement [Saal, D . *et al.*, 2011; Le May, S . *et al.*, 2001]. Serious complications associated with anaesthesia, such as death, acute myocardial infarction, or stroke, are too rare (<1%) (2) to have sufficient sensitivity and specificity as indicators of quality in anaesthesia as in other disciplines, there is a growing number of studies focusing on anaesthesia Patient satisfaction as an indicator of service quality [Kouki, P. *et al.*, 2012; Cooray, T.C . *et al.*, 2011; Pre-Operative Assessment and Preparation, 2010]. We can define satisfaction as the degree of convergence of what is expected and what is actually obtained [Consent for Anaesthesia, 2014; Vyhunthan, G. *et al.*, 2012]

Quality in Medical Services in Anaesthesia The quality of anaesthesia services is usually monitored through analysis of perioperative accidents, morbidity, and mortality. These methods lack the required sensitivity and specificity.

Between 1987 and 1993, JCAHO developed 14 indicators relating to the continuous quality monitoring of hospital anaesthesia services in the United States; However, experts subsequently concluded that the specific indicators were not specific to assessing the quality of anaesthesia care. [Rula, K. *et al.*, 2004; Hepner, D.L. *et al.*, 2004]

Patient satisfaction is used as a quality indicator in the national health system; however, measures of patient satisfaction are not sensitive enough to detect quality changes in the clinical care provided by the anaesthesia team. The simple, non-standard patient satisfaction measures used in most anaesthesia questionnaires are insufficient to address the complexity of this type of measurement. [Lee, A. *et al.*, 1996]

Because expectations regarding the surgical procedure and anaesthesia may differ from patient to patient, satisfaction may not be a valid or reliable method for detecting changes in the quality of care. [Dexter, F. *et al.*, 1999]

Questionnaires have been used to infer patient satisfaction scores in several studies [Gaszynski, T. *et al.*, 2011] as they provide an assessment of the non-technical component of health care. However, in the vast majority of these studies, the degree of satisfaction is usually very high (>85%) (3), leaving the question of whether patients are truly satisfied or whether there are other variables, such as a lack of confidence in criticism of caregivers or the mitigation of going through a dangerous situation without complications could affect the response to the questionnaires. [Wołowicka, L. *et al.*, 2001]

The main objective of this work is to determine the degree of satisfaction of anesthetized patients and the main factors that influenced it. [Baroudi, D.N. *et al.*, 2010].

## MATERIAL AND METHOD

*In this study, a questionnaire was conducted and distributed to 80 patients in different hospitals in Iraq. Patients whose ages ranged from 15 to 45 years were recruited for the purpose of knowing the quality of the anaesthesia service through a general assessment and knowledge of patient satisfaction.*

In this study, an assessment of patient satisfaction five months was conducted among citizens who use health services, where the feeling of satisfaction with the care provided is of paramount importance.

The patient's opinion is an indicator that allows assessment of the level of use of medical services and their appropriate compliance with prescriptions (Roghmann, K., Hengst, A, Zastowny, T. 1979). Initially, patient satisfaction with the quantity and quality of information received from the physician was determined; However, the idea soon spread that it was a multidimensional concept with different dimensions of satisfaction.

In the studies reviewed for this research mostly related to patient satisfaction and hospitalization conditions, which tend to provide a perspective of continuous improvement, allowing the identification of potential areas for improvement in medical centers, and always thinking about patients' comfort.

In the study, the questions and answers were recorded by a component outside the team that provided the anaesthetic care of the patient between 10 and 40 hours after the anaesthesia was administered. The questionnaire consists of several questions related to the pre-operative period, during and after the surgery, and were recorded data related to the patient, the type of surgery, the type of anaesthesia, and the duration of the surgery.

Providing quality information and education to the patient can facilitate their participation in their care, as this gives them a sense of control over the process and contributes to greater satisfaction.

Measuring patient satisfaction with the various elements of the preoperative process is essential to assessing success and planning process improvement. Although healthcare leaders

understand the importance of feedback systems, they often do not use the information they receive to identify opportunities for change and correction.

Preoperative assessment is a clear association and collaboration between the departments of anaesthesia, surgery, nursing, and hospital management to achieve goals in patient care. An important concept that must be implemented that the development of this clinical program is through measuring the degree of patient satisfaction.

Patients may also be evaluated after surgery for treatment recommendations regarding postoperative pain. If there is no service or treatment for pain, the post-anaesthesia recovery unit will be generally responsible for postoperative pain management.

## STATISTICAL ANALYSIS

In this study, statistical analyses were carried out to the demographic data of patients to assess the degree of satisfaction, where the determined (mean value, frequencies with percentages, standard regression, arithmetic mean, and statistical differences) according to SPSS IBM SOFT

were calculated to most of the variables of this study, and the degree of satisfaction to patients was measured through A special scale in addition to the Pearson correlation to find out the type of statistical relationship

## RESULTS

A cross-sectional study was conducted in which 80 patients were collected on the quality of the anaesthesia service through a general assessment and knowledge of patient satisfaction.

In this research, the ages ranged between 14-45 years, and the most frequent ages in this study were from 25-34 years, distributed to 12 male patients and 19 female patients. It was noted that the BMI increased to the older ages, which ranged between 35-45 years. The study also revealed comorbidities, which were hypertension for 39 patients, which were distributed to 20 male patients and 19 female patients, diabetes to 17 patients, obesity to 11 patients, and the patients were distributed according to the type of surgery (major for 36 patients in the men group, 39 patients In the group of women - minor to 5 patients in both groups.

In this study, patients were distributed according to the type of anaesthesia used for the surgery.

The most frequent types in this study were (general anaesthesia for 29 patients in the men group, 30 patients in the women group - regional

anaesthesia for seven patients in the men group, six patients in the women group - local anaesthesia for three patients in the men group, five patients in the group of women as shown in Table 1.

**Table 1:** Main demographic results related with age, Type of operation, the type of anaesthesia

Variable	Male, N= 39	Female, N= 41	P-value
Age			
15-24	10	11	
25-34	12	19	0.63
35-45	17	11	
BMI kg/m <sup>2</sup>			
22-25	5	7	
26-29	15	13	0.33
30-33	19	21	
comorbidities			
Hypertension	20	19	0.87
Diabetes	7	10	0.88
Renal failure	4	2	0.98
obese	4	7	0.34
Others	4	3	0.99
Type of operation			
Major	36	39	0.85
Minor	3	2	0.99
The type of anaesthesia used for the surgery			
General anaesthesia	29	30	
Regional anaesthesia	7	6	0.99
Local anaesthesia	3	5	

**Table 2:** Characteristics of the patient according to Surgery duration, pre-anesthetic medication, and postoperative analgesia prescribed by an anaesthesiologist

Variable	Group man, N= 39	Female, N= 41	P-value
Surgery duration	315±70.6	325±80.8	0.65
Pre-anesthetic medication	22 (56.4)	24 (58.5)	0.532
postoperative analgesia	11 (28.2)	12 (29)	0.98

**Table 3:** Distribution of patients according to Preoperative visits of patients with anesthetists and preoperative period

Variable	Group man, N= 39	Female, N= 41
Physical examination	35	38
Fasting instruction	30	36
Information about anaesthesia type	28	25
Assessed by the anaesthesiologist before arriving at operations room	37	34
Information about PONV management was given	35	34
The anesthetist clarified his concerns	39	41
Provide a detailed explanation of the type of anesthesia used	39	40
Patient knowledge of side effects	34	30

**Table 4:** Evaluate the degree of patient satisfaction with problems after surgery.

Variable	F	P %
Well, I received anesthesia	69	86.25
Anesthetize the patient quickly without pain	77	76.25
Pain after waking up from anesthesia	3	3.75
low back pain	2	2.5
Tube endotracheal	1	1.25
The discomfort of sore throat and from Tube endotracheal when awake to patient confusion, hallucinations, and deliriums	5	6.25
vomiting	4	5

**Table 5:** Evaluate the degree of patient satisfaction on anaesthesia

Variable	satisfied	dissatisfied
Anaesthetist self-introduction	44	36
Analgesia prescribed by the anaesthesiologist	60	20
Choose the type of anaesthesia	74	6
Freedom to question for the patient to the anaesthesiologist	56	33
pain during operation	77	3
Number of postoperative anaesthetist visits	63	17
have a postoperative sore throat	59	21
postoperative depression	66	14

**Table 6:** Logistic regression analysis to determine the factors affecting patient satisfaction

Variable	RS (CS 95%)	P-Value
Anesthesiologist experience	2.2 (1.8-5.6)	0.001
Anesthesia type	1.9 (1.33-2.8)	0.05
good treatment	3.4 (2.4-8.8)	0.006
Satisfaction with complications	3.5 (1.7-12.2)	0.00022
Freedom to ask questions	2.8 (1.1-5.5)	0.004

## DISCUSSION

Patient satisfaction after anesthesia is an outcome indicator and is a reflection of the quality of care in hospitals in Iraq. Although it is not an objective or technical indicator, it indicates the value that the patient places more personal attention [Myles, P.S. *et al.*, 2000].

The evaluation of patient satisfaction, on the one hand, allows to identify of those areas that are missing from the patient's point of view, and on the other hand, it serves to evaluate the outcomes of care. [Nakahashi, K. *et al.*, 2004]

In this way, the patient becomes part of the system, and his needs are the axis through which healthcare services are defined, and hospital services are organized [Saal, D. *et al.*, 2011].

Although there is no standardized questionnaire to investigate patient satisfaction with anaesthesia, a questionnaire adapted to the conditions and characteristics of our environment has been developed using the EVAN-G and ISIS

questionnaires as a reference [Cehajic-Kapetanovic, J. *et al.*, 2010]

It is considered that scanning 10 to 40 hours after the procedure, due to its proximity to the event, facilitates a high response rate and the study of early postoperative complications.

The fact that the surveys were conducted by interlocutors independent of the institution and unknown to patients ensured greater objectivity and freedom of response. [Straessle, R. *et al.*, 2011]

During the study period, 80 patients were collected, and the overall degree of satisfaction with the care received at the consultation was assessed by 97.6% of patients as fully satisfied.

Clinical management includes aspects that integrate the concept of quality and includes knowledge of patient satisfaction, with surveys currently considered the most frequently used method for user engagement. In our unit, we integrate satisfaction surveys, among them in the

field of external consulting. The results highlighted respect in the transaction, followed by the information received, as the aspects that users value most. These results are in agreement with the literature describing that most of them agree on three essential elements when assessing satisfaction; The first personal relationships, the second the technical aspects of care, and finally, the aspects related to comfort. In the field of anaesthesia, various researchers also agree that information, communication, and a personal approach are the most important factors influencing satisfaction with perioperative care. It has been indicated that the sympathetic attitude of the anaesthesiologist during the preoperative visit significantly reduces patient anxiety and increases satisfaction with the quality of the information provided. [Saal, D. *et al.*, 2011]

As in previous studies, our patients showed high levels of satisfaction. Interpretation is usually related to patients' expectations regarding anaesthesia. It is known that 85% of patients expect trouble-free anaesthesia and value communication and information, and their main concerns are not waking from anaesthesia, nausea, and vomiting, postoperative pain, awareness, complications, etc. If there are no complications around the surgery, the patient is expected to be satisfied with the anaesthesia.

Patient satisfaction remains a good indicator of the quality of anaesthetic care, and postoperative questionnaires in anesthetized patients can be an indicator of the quality of services provided. [Weisman, C.S. *et al.*, 2000]

We have verified that patients show high levels of satisfaction with the work of anaesthesia and that the factors that can be found relevant to this satisfaction are patients' information regarding the anesthesia plan, their concerns, and the level of pain, nausea, and vomiting after surgery.

## CONCLUSION

In conclusion, according to our results and in our community, the degree of satisfaction in the area of pre-anesthesia consultation is more related to the anaesthesiologist's ability to communicate than other variables, and these professionals should be encouraged to promote both directions.

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**Source of support:** Nil; **Conflict of interest:** Nil.

**Cite this article as:**

Mohammed, A.K. "The Quality of the Anesthesia Service through a General Assessment and Knowledge of Patient Satisfaction." *Sarcouncil journal of Medical sciences* 1.9 (2022): pp 46-51.