

Patient Satisfaction with the Facilities of Pre-Operative Anesthesia Evaluations Clinics

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ABSTRACT

Objective: The aim of the study was to measure the satisfaction of patients with the facilities of pre-operative anesthesia evaluations clinics by using questionnaire.

Methodology: This study is a descriptive analytical study carried among 300 healthy volunteers, selected by simple organized random sampling and the data was collected by using questionnaire (Likert's scale five-point). 95% level of confidence was used for data analysis, the P value was (<0.05). The questionnaire was given to participants 24 hours after anesthesia and surgery, the data were analyzed by a statistical package of social science. Frequency is presented, cross-tabulation and P- value was obtained among variables, excel program was used for figures and some data was presented in tables.

The results: The results explore a decrease in patient satisfaction and 20% is the total average of satisfaction with facilities of preoperative anesthesia evaluation. There were differences between males and females.

Conclusion: Patient satisfaction with facilities of preoperative anesthesia evaluation is significantly and low the study is suggesting future studies to find out the causes of declining satisfaction with preoperative anesthesia evaluation and its relationship to many variables.

Keywords : Anesthesia, Clinics, Evaluation, Facilities, Patient, Preoperative, Satisfaction

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I. INTRODUCTION

Anesthesiologist-directed preoperative anesthesia clinics are used to prepare patients for the administration of anesthesia and surgery. Studies have shown that such a clinic reduces preoperative testing and consults problems [1]. The anesthesiologist, before the delivery of anesthesia care, is responsible for reviewing the available medical record, interviewing and performing a focused examination of the patient, discuss the medical history, including previous anesthetic experiences and medical therapy, assess those aspects of the patient's physical condition that might affect decisions regarding perioperative risk and management, ordering and reviewing suitable available tests and consultations as necessary for the delivery of anesthesia care, ordering appropriate preoperative medications, ensuring that consent has been obtained for the anesthesia care, and documenting in the patient chart shows that above has been performed." (American Society of Anesthesiologists, 2015) Preoperative anesthesia evaluation clinics have been well established in North America, Europe, and Australia, and others, but few economic evaluations have been published. The best description that was in Hong Kong which was a hybrid model of new and old preoperative anesthesia care systems.[3] Preoperative anesthesia clinics are now available in most hospitals. However, there have been few studies examining the efficacy of them in minimizing the day of surgery cancellations due to anesthetics reasons. [4]. All patients who will undergo anesthesia should be evaluated by an anesthesiologist to assess the risk of surgery and anesthesia to the patient and

prepare for the required procedure and prepare an anesthesia plan [5]. Pre-anesthesia assessment in the clinic when done by an anesthesiologist before surgery will improve patient satisfaction and reduce anxiety as well as avoid physical complications resulting from insufficient evaluation or unnecessary testing, besides economically advantageous by avoiding cancellations or delays. [6]. Also, provide the opportunity to gain clinical information from the patient and the procedure is within reach [6]. Patients' satisfaction is a personal feeling of achieving one desire and the balance between what is expected and achieved. Of course, attention was drawn to the evaluation of patients' satisfaction with health care in the 1960s. and medical care provider should share the decision of medical care with the patient and, using what is preferred by patients and the best available evidence and apply in preoperative anesthesia evaluation [7]. Obtaining a higher rank of maintaining quality is the earliest concern for all service providers because they front on a continual need for making high-quality client-oriented services. It turns paramount significant to realize client anticipation and their demands efficiently so as to sustain services. [8]

Nowadays, Anesthetists are playing a key part in patient management in the perioperative period. The objective of preoperative anesthesia assessment is to get related details about the patient's present and previous medical history and workout the anesthetic plan based on risk assessment. [9]. Patient satisfaction has become an important component of quality assessment. However, many of the sources collect reluctant data on satisfaction in disclosing detailed information, there is still little information on the possible determinants of patient satisfaction. [10]. Traditionally, the focus of medical care has been restricted to the diagnosis and treatment of disease and not on patient experience during the course of treatment. The medical outcome when we share patients experience in terms of morbidity and mortality is considered as the main indicator of quality [11]. The main factors for an ideal location are easy to access from the main entrance of the hospital and it is preferred to be in the main outpatient not in the operation department. The physical planning of the place should provide enough space and specify areas for registration and allow a place for patient assessment and examination. Also supplying of all patients and their families with the pre-anesthetic education and room for staff rest must be assured as well. The clinic should allow a relaxed and private environment for all the activities for example discussion of the risks and benefits of anesthetic options and pain management strategies. [12].

Many factors affecting satisfaction are under investigation throughout the world, and support for patients in health services is an important indicator of quality improvement particularly in the preoperative period. Satisfaction of patients with the area of preoperative anesthesia evaluation has been one of the biggest challenges in our country and most of the patient suffer from finding the clinic area and some of them were complaining of the neatness and cleanness and recent studies in Sudan showed some obvious obstacles that may

face the anesthesiologist when dealing with this area, for instance, improper announcement of guidelines and lack of awareness of the advantages of the pre-anesthesia evaluation. [13]. To our knowledge, few published data explored the association between patients satisfaction with facilities of preoperative anesthesia evaluation. Therefore it is interesting to hypothesize that, the satisfaction rate is low with facilities in this study, the researchers investigated the association between patients satisfaction and of facilities in the pre-operative anesthesia evaluation period. Our study demonstrates that the three essential variables of high satisfaction with anesthesia are a clear direction to an area with neat clean physical facilities as well as available comfortable chairs for sitting. Many developing countries, such as Sudan, have difficulty in distributing adequate budgets and the health expenditure is very low, as well as inefficient use of available resources, mainly for administrative reasons, low economic performance and population growth, leading to low growth in health also poor budget allocation and limited opportunities for good social services, including health care. [14]. Satisfaction details play a significant role in the strategy and health care providers use in delivering services for patients. It was found that patient satisfaction with facilities of preoperative anesthetist evaluation is very low and several identified factors are associated with dissatisfaction that may be preventable and better treated according to the Royal College of Anesthetists and American Society of Anesthesiologist (ASA) preoperative anesthetic evaluation standards. The goal of this current study was to discover the level of patient satisfaction with the facilities of preoperative anesthetic evaluation over a wide range of patients operated upon under both general and regional anesthesia during the study period.

II. SUBJECT AND METHODS

2.1. Study area:

The study was conducted at Saad Abu El Ella maternity Hospital in Khartoum state, and EL-MAK NIMR university hospital which was located in Shendi city in River Nile state during the period 2016 - 2019. In Sudan.

2.2. Study population:

Healthy volunteers from both gender with age group between 15 to less than 85 years old who came as inpatients that underwent elective surgery the samples were selected by organized simple random technique. All Surgical inpatients that underwent elective surgery during the study period, who had preoperative anesthesia evaluation in the clinics, and all patients either male or female were included in the study.

2.3. Study design:

This descriptive analytical study about the patient's satisfaction with facilities of pre-operative anesthesia evaluation among healthy adult male and female with different ages,

2.4 Ethical approval:

Permission to carry out the study from the responsible authorities was taken. The procedure was explained to

volunteers to provide privacy for female. The objectives of the study were known by volunteers & their verbal acceptance was considered. The study protocol was approved by the institutional ethics committee of the university prior to the commencement of the study.

2.4. Description of Study Procedure

A well-structured questionnaire was filled up via a face to face interview by B.Sc. trained anesthesia technologists who were not involved in anesthesia care to exclude bias. 5-point psychometric Likert’s scale was used to measure the degree of patient satisfaction with facilities of pre-operative anesthesia evaluation compared to demographic criteria of patients. The questionnaire was given to participants 24 hours after anesthesia and surgery, the scoring was, as follows: score 5 for Strongly Agree (SA), 4 for Agree (A), 3 for Undecided or neutral (N), 2 for Disagree (DA) and 1 for strongly Disagree (SDA). The overall satisfaction of the patient was found.

III. STATISTICAL ANALYSIS

The data were analyzed by using a statistical package of social science (SPSS), Frequency presented mean and stander deviation, paired T. test, and cross-tabulation was used for data analysis as statistical tests and excel program was used for figures and some data were presented in tables, figures presentation include Bar graph, pie graph. P -value was used to identify the association between dependent and independent variables (P<0.05) was used as statistical significant.

IV. RESULTS

Impact of age, gender, education level, residency and frequency of visit and physical status was statistically analyzed, and no significant correlation was found between ages. The participant's ages were ranged from (15- 85) years, and the estimated mean of the age was approximately 37.83 years, with a standard deviation of 0.99 (Table 1). And they were (38.13%) males and (61.87%) females (Fig 1). Patients and their levels of satisfaction with facilities (P =0.607). (Table 1), However, gender of the patient significantly influenced levels of satisfaction (P = 0.00), (Table 2), as females were more satisfied than male, there was significant association in levels of education with satisfaction (P = 0.02) (Table 3), as we see uneducated or illiterate patients were more satisfied than educated patients, also we get clear association according to the residency of the patient in satisfaction (P = 0.06) (Table 4), a patient coming from rural area were less satisfied than urban patients. The frequency of visit had no significant association with levels of satisfaction (P = 0.185), (Table 5), as well as we noticed acceptable association with physical status and levels of satisfaction (P = 0.02) as ASA4 were less satisfied than ASA 1 (Table 6). Among all participants (n = 300), only 10.67% strongly agreed with the cleanliness and neatness of the pre-anesthetic evaluation area, and about 22.33% who strongly disagree. (Fig 2). Regarding the place for sitting while waiting for the anesthetist 25% strongly agree and satisfied, and about 10.67% strongly disagree

they said they were strongly not satisfied. (Fig 3). Only 18.66% of them said they strongly agreed with the availability of sign and direction indicators to facilitate the way to pre-anesthesia area and about 8.33% were strongly disagreed with that (fig 4). Average of overall satisfaction with facilities as measured by Likert’s scale is seen in the (Table. 7)

Table (1) Comparison of patient’s satisfaction according to age’s distribution in pre-operative anesthesia area by Likert’s scale.

Age group	Likert’s scale for patients satisfaction						P-value
	SA	A	N	DA	SDA	Total	
15–30	11	13	30	32	25	111	.607
31–40	11	6	19	35	24	95	
41–60	5	4	19	18	18	64	
61–85	5	5	7	7	6	30	
Total	32	28	75	92	73	300	

Table (2) Comparison of patient’s satisfaction according to gender distribution in pre-operative anesthesia area by Likert’s scale

Gender	Likert’s scale for patients satisfaction						P-value
	SA	A	N	DA	SDA	Total	
Male	12	10	44	26	22	114	.000
Female	20	18	30	66	51	185	
Total	32	28	74	92	73	299	

Table (3) Comparison of patient’s satisfaction according to Levels of education distribution in

Levels of education	Likert’s scale for patients satisfaction						P-value
	SA	A	N	DA	SDA	Total	
Illiterate	12	8	26	48	43	137	.002
Under graduated	9	12	14	15	7	57	
Graduated	8	7	22	25	18	80	
Post graduated	3	0	11	4	4	22	
Total	32	27	73	92	72	296	

pre-operative anesthesia area by Likert’s scale

Table (4) Comparison of patient’s satisfaction according to Residency distribution in pre-operative anesthesia area by Likert’s scale

Residency	Likert’s scale for patients satisfaction						P-value
	SA	A	N	DA	SDA	Total	
Urban	19	11	46	38	27	141	.006
Rural	13	15	26	54	46	154	
Total	32	26	72	92	73	295	

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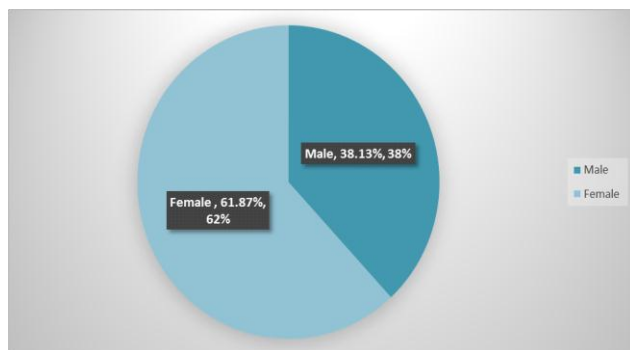
Table (5) Comparison of patient's satisfaction according to the frequency of visit distribution in pre-operative anesthesia area by Likert's scale

Frequency of visit	Likert's scale for patients satisfaction						P-value
	SA	A	N	DA	SDA	Total	
New	16	13	43	51	50	173	.185
Repeat	15	15	30	41	22	123	
Total	31	28	73	92	72	296	

Table (6) Comparison of patient's satisfaction according to Physical status distribution in pre-operative anesthesia area by Likert's scale

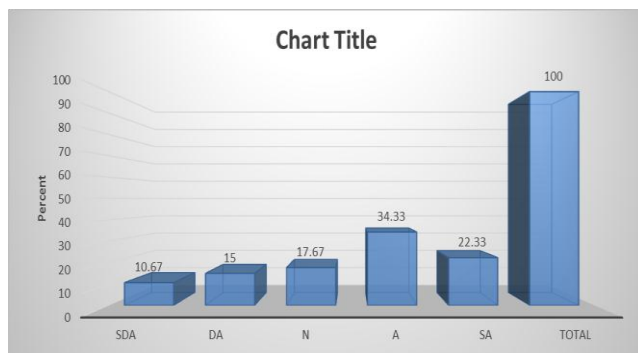
Physical status	Likert's scale for patients satisfaction						P-value
	SA	A	N	DA	SDA	Total	
ASA1	16	17	30	40	31	134	.002
ASA2	9	5	19	36	31	100	
ASA3	5	7	13	13	5	43	
ASA4	5	0	8	2	4	19	
Total	35	29	70	91	71	296	

Figure (1) Distribution of participants by their gender



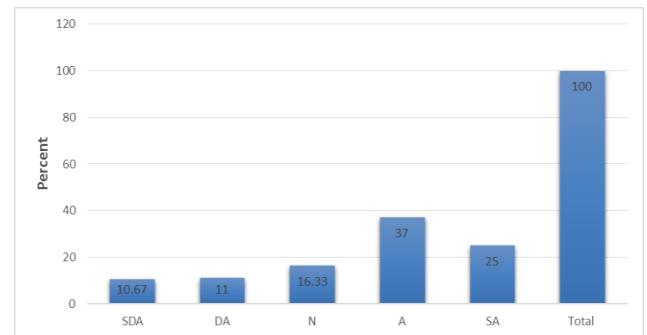
Source: prepared by the researcher. Used EXCEL program. Questionnaire data, 2016-2019

Figure (2) the participant's satisfaction with the neatness of the pre-operative anesthesia evaluation area (obtained by Likert's scale)



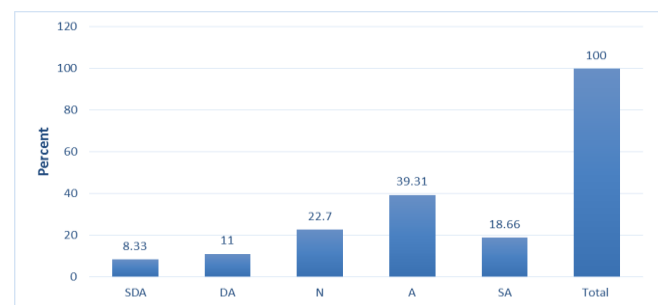
Source: prepared by the researcher. Used EXCEL program. Questionnaire data, 2016-2019

Figure (3) the participant's satisfaction with the availability of enough waiting chairs in pre-operative anesthesia evaluation area according to Likert's scale



Source: prepared by the researcher. Used EXCEL program. Questionnaire data, 2016-2019

Figure (4) the participant's response to the location and direction of the pre-operative anesthesia evaluation area according to Likert's scale



Source: prepared by the researcher. Used EXCEL program. Questionnaire data, 2016-2019

Table (7) Percentages of the average of overall satisfaction with facilities as measured by Likert's scale

Average of overall satisfaction with facilities as measured by Likert's scale				
	Neatness	Enough waiting chairs	Location and direction	Averages
SDA	10.67	10.67	8.33	9.89
DA	15	11	11	12.333
N	17.67	16.33	22.7	18.9
A	34.33	37	39.31	36.88
SA	22.33	25	18.66	21.997
Total Average of satisfaction rate				20

V. DISCUSSION

The rate of patient satisfaction in response to the facilities of preoperative -anesthesia evaluation is significantly low and agreed upon with what has been reported in the past regarding the need of patients in pre-operative anesthesia evaluation to improve the care of patients. Sjolting's et al. (2015)

The result of this current study described various points about the pre-operative anesthesia evaluation environment and facilities .i.e. the cleanliness or neatness of the area, availability of chairs to sit on as well as the direction to the area of the pre-operative anesthesia evaluation, and their satisfaction was very low with neatness and cleanness of the area, only 66 (22.1%) of all participants were reported strongly agree with the neatness of the area, compared to another study, where, they mentioned among measuring items, satisfaction was reported to be highest (93.2%) to the cleanliness of the rooms of the clinic, this variation is justified by difference in the study area as well as the participant and the economic situation in Sudan which is very poor due to the effects of unstable political issues, which caused unequal distribution of resources .[15] In Nigeria, They found 83% of the patients were satisfied with the hospital facilities and environment while only 17% were not satisfied.[16] This finding in the research is considered as a low rate of quality because the patients were not happy about the facilities in the area of study. Another concern is an area for sitting of the patients waiting for evaluation in this study only 75 (25 %) of all participants reported strongly agree with chairs availability for them in the clinic to sit comfortably waiting, this was compared to another finding which addressed overcrowding as a problem defined, despite the fact that most of the patients were examined in less than 20 minutes of their arrival.[17] also, 37.2% of the clients in another study were dissatisfied with the overall waiting time to get the services.[18] In our area, this due to the lack of anesthesia clinic in most of the hospitals and even if there is one no enough chairs available for sitting and in some hospital they use any general office for evaluation of patients which is not suitable to assure privacy of the patient this led the patient to complain about that, sometimes the anesthetist used to see the patient in operating rooms which is not the standard of care because especially if he found the patient is not fit for operation he simply will postpone the operation, after the patient has prepared himself for operation and suddenly they say he is not fit, this will made the patient unhappy especial in Sudan where patient is coming with all his family, who leave their works and come to wait for attending the operation. The third concern is regarding the location of the pre-operative anesthesia clinics only 56 (18.66%) of all participants reported strongly agreed upon with easy to find the location of the clinic compared to another study when they show nearly more percentage for availability of signs and directions to ease the way in the private wing (25%) [17] in the area of the current study it was difficult for the patients to find the anesthesia clinic especially for new patients who come for the first time they complain of no sign to direct the patient without asking that is if there is anesthesia clinic, which is not good for assuring the quality of care . The average of overall satisfaction of all patient with preoperative -anesthetic facilities was 20% only and that is very low when compared to a study in Ethiopia, The overall proportion of patients who said they were satisfied with anesthesia services was 72.3 %.[19] In another study, an achieved level of overall satisfaction score was less than 85%.[20] In another study, their findings showed the overall

client satisfaction level with the health services rendered at the hospital was 77% [18]. There was a study showed the overall proportion of patients who said they were satisfied with anesthesia services at the University of Gondar teaching hospital was 90.4 %.[21] This low rate in overall satisfaction can be justified as a result of different study area and time as well as many economic factors in Sudan, and while anesthesia specialists consider it is of value to ask patients about what they should expect, they often are unsuccessful to do so and as consequence may not respond adequately. These results put finger on an area where the patient view is obstructed in clinicians' approach when attempting to reference patient expectations and increase patient satisfaction, demonstrating that healthcare administration should take a more participating role in increasing the awareness and commencing organized training programs to deal with patient's anticipations.

VI. CONCLUSION

According to the results of this study, the overall proportion of patient's satisfaction with physical facilities in preoperative anesthesia evaluation clinics is significantly low. Therefore further studies are needed to find out the determinant factors of patient dissatisfaction with preoperative anesthesia evaluation facilities.

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