



## Study of patient satisfaction in anesthesia OPD: A study in Shaheed Ziaur Rahman medical college hospital, Bogura, Bangladesh

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### Abstract

**Background:** Anesthesiologists play a significant role in perioperative medical care of the patients. In Anesthesia OPD, preanesthesia evaluation is done to assess patient's medical condition before surgery and formulate anesthetic plan based on risk assessment and streamline the preoperative experience of patients. But the patient experience and satisfaction with such clinics has not been adequately studied in Bangladesh.

**Objective:** The main objective of this study is to assess the satisfaction of patients who have availed services of preanesthesia evaluation, identify problems, and suggest measures to improve the services.

**Materials and Methods:** We conducted this study at Anesthesia Out Patient Department by means of a questionnaire designed to assess patient satisfaction about preanesthetic evaluation services in Shaheed Ziaur Rahman Medical College Hospital, Bogura, Bangladesh. A total of 100 adult patients were randomly selected to respond to a multiple item questionnaire. A database was created and analyzed using Microsoft Excel.

**Results:** In this study, major reasons leading to dissatisfaction of patients were difficulty in locating Anesthesia OPD, delayed fitness, lack of information about purpose and prerequisites of Anesthesia visit by surgical faculty and lack of explanation of preanesthesia instructions. Also 40 % patients found that their privacy and confidentiality not maintained. Most of the patients were not satisfied by basic amenities in hospital.

**Conclusion:** Patient satisfaction about Anesthesia OPD can be improved by measures taken in infrastructure, basic amenities, functioning of Anesthesiologists, counseling of patients and coordination with other departments.

**Keywords:** anaesthesia OPD, patient satisfaction, preanaesthesia evaluation

### Introduction

Anesthesiology is a multimodality speciality in medical science with its spectrum ranging from perioperative care to pain management, critical care and palliative care. Nowadays, Anesthesiologists are playing a decisive role in patient management in perioperative period. The goal of preanesthesia evaluation is to obtain relevant information regarding the patient's current and past medical history and formulate anesthetic plan based on risk assessment <sup>[1, 2]</sup>. For that Anesthesia outpatient department (OPD) have been developed to streamline the preoperative experience of patient. In recent years, there has been a paradigm shift from an inpatient to outpatient preanesthesia evaluation. Due to increased popularity for ambulatory surgery <sup>[3]</sup>, short hospital stay and optimization of high risk patients before surgery, these Anesthesia OPDs play an important role in enhancing the cost-effectiveness of the perioperative process. With the current emphasis on cost-effectiveness, reduction in surgical delays and case cancellations are two of the most important benefits of the preanesthesia evaluation process <sup>[1]</sup>. Despite these benefits to the hospital system, the patient experience and satisfaction with such clinics have not been adequately studied in Bangladesh <sup>[4]</sup> Patient satisfaction is a unique clinical endpoint and is an indicator of the quality of healthcare provided. <sup>[5, 6]</sup> Apart from diagnosis and therapy, other

issues which concern OPD patient are access to care, time spent in waiting room, timely referral to specialist, amenities, courtesy, adequate explanation and patient counseling. Monitoring of these factors is essential to establish the perception of patients regarding a quality of Healthcare services. For that patient satisfaction surveys are one of the established yardsticks to measure success of the service delivery system functional at hospitals <sup>[25]</sup>. This study was conducted at tertiary care hospital to develop a valid and reliable multidimensional questionnaire assessing patient satisfaction with preoperative anesthesia care that included questions about information about anesthesia visit, problems faced, basic amenities, doctor-patient relationship and suggestions to improve.

### Structures and Activities of Modern Anesthesia OPD

**Physical requirements:** The primary goal of Anesthesia OPD is to provide a comprehensive anesthesia service for presurgical patients at one centralized location (1). It can be situated in the same hospital complex as other surgical specialty clinics for easy accessibility and convenience to patients. The physical design of the clinic should provide adequate space demarcated into areas for registration and reception, patient interview and examination, patient's preoperative education.

**Personnel requirements:** Nowadays, there is a trend towards anesthetist-directed, preanesthesia evaluation (7), driven by the need for cost-effectiveness. At the Anesthesia OPD, consultant anesthetist is assigned to the clinic and is responsible for resolving any clinical problems. Post graduate students from anesthesia are also posted to the clinic as part of their training. At the clinic, workload may vary at different times and flexibility in staffing is required.

**Admission criteria of the clinic:** Patients may present at the Anesthesia OPD on a referral basis from respective surgical department prior to their scheduled surgery. It needs close collaboration and support among anesthetists, surgeons, physicians, nursing staff and laboratory services. Issues that must be addressed to ensure smooth OPD functioning include the timely reporting of results by laboratory and diagnostic imaging services, a system of medical referral for timely optimization. The anticipated duration of evaluation is based on the medical complexity of the patients. Typically, American Society of Anesthesiologists (ASA) physical class I and II patients require a shorter clinic visit time, compared to ASA class III and IV patients. The Anesthesia OPD should provide a relaxed, and yet private, atmosphere in which the following activities are carried out:

1. Preanesthesia evaluation through review of the medical records and relevant history, examination and relevant ancillary testing, followed by risk optimization through appropriate interventions and consultations.
2. Discussion of the risks and benefits of anesthetic options and pain management strategies.
3. Alleviation of anxiety through counseling.
4. Patient and family education on topics such as fasting, medications to continue on the day of surgery, special nursing care requirements, anticipated duration of hospital stay and contingency for intercurrent illness.
5. Validation of consent.

## 2. Objectives

1. To assess the satisfaction of patients attending the Anesthesia OPD in a tertiary care hospital
2. To determine the factors, most likely to influence satisfaction and identify problems
3. To suggest measures to improve the services of OPD.

## 3. Material and Methods

The study was prospective and randomized cross sectional study conducted over a period of 4 months in Anesthesia OPD at Shaheed Ziaur Rahman Medical College Hospital, Bogura, Bangladesh from January to April-2017. 100 adult patients scheduled for elective surgeries and who have received Anesthesia fitness from Anesthesia OPD for surgery were randomly included for this study. Sample size of 100 was selected by taking into consideration the number of new patients attending OPD and short duration of study of 4 months. The inclusion and exclusion criteria were as follows,

### 1. Inclusion Criteria

- Age group between 18-70 years.
- Patients scheduled for elective surgery, visiting Anesthesia OPD and received fitness for surgery.

## 2. Exclusion Criteria

- Patient's age <18 yrs and > 70 yrs.
- Refusal to participate in study.
- Unable to answer question due to poor medical condition.
- Psychiatric and mentally retarded patients.

A questionnaire comprised of 11 questions for study population in language best understood by them in Bangla/ English. Questionnaire was enquiring about various things such as patient's educational characteristics, perception towards availability of basic amenities, registration process, and behavior of doctors and other staff, facilities available, privacy and confidentiality, problems faced while getting fitness and suggestions to improve. We note down:-

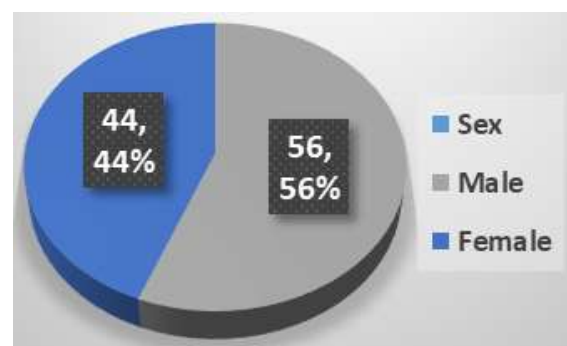
- Patient's information --demographic data, literacy level, diagnosis, type of surgery,
- Regarding anesthesia --problems in locating anesthesia OPD, awareness regarding purpose and prerequisites of anesthesia visit, no. of visits for fitness, average waiting period per visit, causes of delay in fitness, doctor-patient relationship,
- comparison with previous anesthesia experience,
- satisfaction with basic amenities and registration process,
- any suggestions to improve performance

**Statistical analysis:** After collecting the data, it was subjected to statistical analysis. Descriptive statistics was used. A database was created and analyzed using Microsoft Excel.

## 4. Observation and Results

In this descriptive type of study of 100 adult patients, database was created and analyzed using Microsoft excel.

**Characteristics of the OPD patients:** It includes information on sex, age, and literacy level of the OPD patients. [Figure-1] shows that 56% patients were males and rest 44% were females. The maximum number of respondents (40%) belongs to the age group of 30- 45 years, and then 36% from 18-30 years group, 18% from 45-60 years group and minimum respondents (6%) to above 60 years age group. [Table-1]. The education level of the respondents was good as most of them were either secondary (23%) or SSC passed (23%) [Table-2]. Out of 100 patients, 65 % were ASA I, 30% ASA II and 5 % ASA III. Only 35 % patients have other comorbid conditions such as hypertension, diabetes, ischemic heart disease, COPD, thyroid disorders, chronic kidney disease.



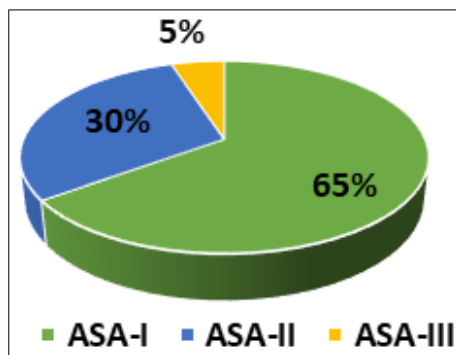
**Table 1:** Gender distribution of the patients.

**Table 1:** Age distribution of the patients (N=100)

Age	%
18-30	36
31-45	40
45-60	18
60-70	6

**Table 2:** Educational level of the patients (N=100)

Education	%
Illiterate	13
Primary	15
Secondary	23
SSC	23
HSC	14
Graduate	11
Post grad	1

**Fig 1:** Physical condition as per ASA grading of the patients.

**Registration process:** Regarding the registration process, 93 % OPD patients said the registration service was satisfactory. Only 7% patients were not satisfied because of the preference given to hospital staff patients. **Basic amenities-** It was observed that the perception of OPD patients on availability of basic amenities quite variable. Most of the OPD patients 97% were happy with the sitting arrangements at the OPD. Around 82% respondents thought that drinking water and toilet facilities should be improved [Table-3].

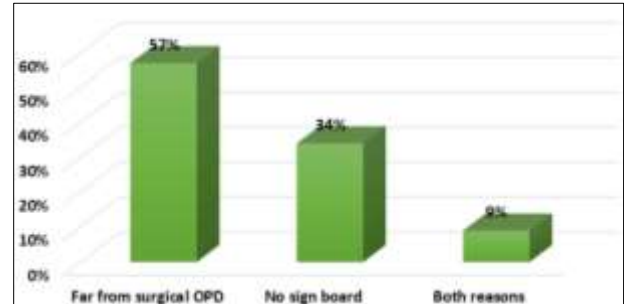
**Table 3:** Patient's perception about basic amenities (N=100)

Seating arrangement	
Adequate	97%
Inadequate	3%
Clean Toilet availability	
Available	8%
Not available	82%
Safe Drinking water	
Available	8%
Not available	82%
Registration process	
Satisfactory	93%
Non satisfactory	7%

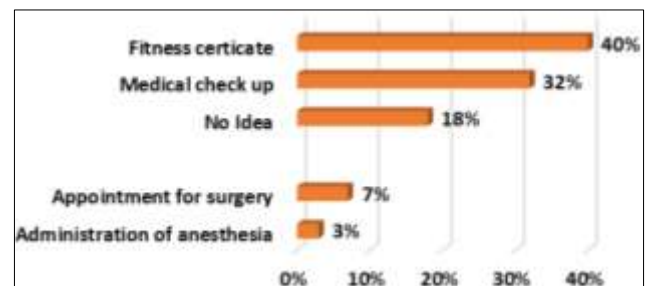
### About Anesthesia OPD

**Location of Anesthesia OPD:** 41 % patients found no difficulty in locating PAC, out of that 36% patient from general surgery OPD and 5% from plastic OPD, which is located near Anesthesia OPD. 59 % of patients found difficulty in finding the Anesthesia

OPD, out of that 22 % were from ENT OPD, 13% from Gynecology, 15 % from Urology and remaining from Ophthalmology, Orthopedics OPD. These OPDs are located in different buildings. Major reasons cited as it being far from the respective surgical OPD 57% and inadequate sign posts indicating the location of OPD 34% and 9 % found both reasons [Figure-2].

**Fig 2:** Reasons for difficulty faced by patients in reaching Anesthesia OPD.

**Wareness regarding purpose of Anesthesia OPD:** Only 32 % patients knew that it was for Medical check up to rule out major diseases that may affect anesthesia during surgery. 40% patients were under impression that anesthesia visit was for getting fitness certificate. 7% patient asked for appointment for surgery in Anesthesia OPD. 3% thought that some kind of testing with anesthetic drugs will be done in OPD or they will be administered short anesthesia. 18% had no idea, visited OPD as advised by surgeons [Figure-3].

**Fig 3:** Patients perception about reason for visit to Anesthesia OPD.

**Prerequisites of anesthesia visit:** Generally patients are referred from surgical OPD to this OPD. Only 60% were advised by surgeons to take reports of all recent investigations before going to OPD and out of that 8% were referred to subspecialty clinic before visiting this OPD. Only 12 % of them were informed to take reports of previous illness or surgery. Surgeons had given no advice to 40 % of patients regarding prerequisites of Anesthesia OPD visit.

**Average waiting period per visit:** Most of patients (78%) were attended in time within 10 mins by the doctors and the average waiting time for most of the patients was <10 minutes. A few patients (22%) had to wait for longer time upto 30- 60min before being examined because of shortage of doctors on that day or for that period. The doctors in anesthesia OPD were allotted other work also, so doctor patient ratio is variable. Waiting time for patient is highly dependent on that [Figure-4].

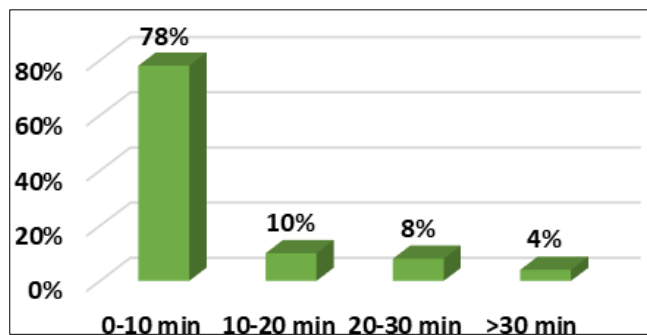


Fig 4: Average waiting period for patient per visit in Anesthesia OPD.

**No. of visits for fitness:** 59% of the patients received fitness for surgery on their first visit. But 36% patients had to visit 2 to 3 times and 5% patients for 4 times, before getting fitness [Figure-5].

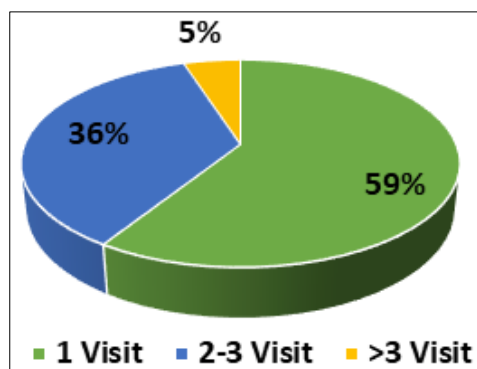


Fig 5: Number of visits required to get fitness from Anesthesia OPD.

**Causes of delay in fitness:** In 41% patients felt that fitness was delayed. Out of that, in 27% patients, fresh investigations were ordered, 41 % were sent for Physician referral to optimize medical condition and previous investigations reports were not brought by 32% patients [Figure-6].

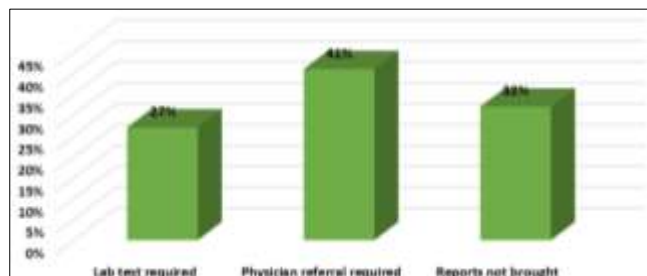


Fig 6: Causes for delay in getting fitness.

**Doctor- patient relationship:** Majority (80%) of patients were not communicated regarding the preanesthesia instruction by the anesthesiologist, though they have mentioned it on OPD paper. Due to increased workload, these visits are carried out technically with aim of making patients fit for surgery. Increase in perception trend with increase in educational level is significant. 96 % patients were satisfied that whatever queries they themselves asked, were answered. But 4% patients did not ask any queries. 60% patients were comfortable with their privacy and

confidentiality due to good rapport with anesthesiologists. But 40% patients were not satisfied about that because of unavailability of separate room or cubicle arrangement for each consulting doctor [Table-4].

Table 4: Patient's perception about doctor's care (N=100)

Explanation of preanesthesia instruction	
Yes	20%
No	80%
Response to patient's queries	
Satisfactory	96%
No queries	4%
Patient's privacy and confidentiality	
Satisfactory	60%
Non satisfactory	40%

**Comparison with previous anesthesia experience:** For 65% of patients, this was first Anesthesia experience. But 35 % patients were visited anesthesia OPD in another hospital previously. Out of that, current Anesthesia experience of 13% was better, 21% similar and 1% worse than other hospital.

**Suggestions to improve performance:** Only 30 % patients suggested to improve performance of anesthesia OPD. Most of patients were dissatisfied about delayed fitness. So they suggested, referral OPDs should be every day, all OPDs should be in the same premises of Anesthesia OPD, their OPD timings should be extended, blood investigation should be done faster. Along with fitness, doctors at Anesthesia OPD should give appointment for surgery. Some suggested drinking water and toilet facilities should be improved. OPD premises should be renovated. Some of them suggested towards improving their privacy and confidentiality while doing medical evaluation.

## 5. Discussion

Anesthesiology has emerged as multifaceted clinical field. Anesthesiologist today are playing decisive role in patient management with its spectrum ranging from perioperative care, critical care, pain management to palliative care. So doctor patient contact prior to surgery in the form of preoperative visit to Anesthesia OPD is fundamental component of high standard of practice [22]. In A study conducted by Dr. Deepa Jathar *et al*, stated that detailed preoperative visit is definitely one of the ways of improving patient's perception about anesthesia. [23]. Anesthesia OPD like any other OPD is the most sensitive place from the public relations point of view. These outpatient Anesthesia clinics play important role in enhancing effectiveness of perioperative process. Adequate waiting space and seating arrangements and facilities of wheel chairs and trolleys should be made available. Public toilets, drinking water, and public telephones are essential in this department. Waiting time of the patients should be rendered to minimum. Maximum number of doctors should be available during the peak hours. Comfort, care and cure are the expectations of a patient who is in distress at the time of attending an outpatient department. Although distress of a patient increases if he / she is asked to consult another specialist of other department. Hence, it is very important to overview the OPD of the hospital for its efficient and effective functioning [24]. Most of studies regarding perception of anesthesia are mainly of postoperative patients about satisfaction level or knowledge



about anesthesia. Papers published so far from the area of anesthesia have mainly compared anesthesia-related incidents and complications and not the quality of the outcome, that is, the degree of patient satisfaction mainly with preoperative anesthesia care. Traditionally, the focus of medical care has been restricted to diagnosis and treatment of disease and not on patient experience during the course of treatment. Medical outcome in terms of morbidity and mortality is considered as the main indicator of quality [9]. However, these outcomes poorly assess various issues of importance to the patient. Patient satisfaction involves physical, emotional, mental, social, and cultural factors. It is determined by the quality of care provided and the patient's expectations of the care [10]. Patient involvement in decision making has emerged as an effective tool for quality assurance in health services. Main aim of this study was to assess patient satisfaction with the preoperative anesthesia care, identify the problem areas which can be improved in relatively short time, in a cost-effective manner. In this study, more than 50% patients were satisfied with Anesthesia care on different issues, but still some patients were not comfortable. The major problems identified were administrative in nature which can be reduced by good planning and utilization of resources. The other significant problem was lack of awareness regarding Anesthesiology field, which can be tackled by good counseling of patients. In our study 100 adult patients were selected randomly, out of them 56% patients were males and rest were females. Out of 100, the maximum number of respondents (40%) belongs to the age group of 30- 45 years and only 6% were geriatric. The education level of the respondents was good with 87% being literate population. Most of the patients were low risk category i.e. 65 % were ASA I, 30% ASA II and only 5 % of high risk or ASA III. The various factors influencing patient satisfaction in our study are discussed below-

Difficulty in locating Anesthesia OPD was an important factor leading to dissatisfaction in patients. About 59% of patients found difficulty in finding the Anesthesia OPD, main reasons are, it being far from the respective surgical OPD 57% and inadequate sign posts indicating the location of OPD 34% and 9% both reasons. In KEMH, the OPDs of various surgical departments are dispersed in different buildings. Anesthesia OPD is located near to General surgery and plastic surgery OPD and away from all other OPDs. Moreover, appropriate sign boards indicating the location of the OPD are also lacking. Ideally, Anesthesia OPD should be near the surgical OPD to reduce transit time and for better coordination between specialties. Proper color codes/signage in the corridors directing towards OPD should be provided. [27, 28]. In a Patient's satisfaction audit conducted by Anju Gupta *et al* in government hospital, 90% of patients found difficulty in finding the Anesthesia OPD with 20% could reach OPD only after the registration time was over [4].

Poor information about Anesthesia was another major concern. Anesthesia is specialized branch and people come in contact with an anesthesiologist only after being referred by a surgeon. Most of the surgeons do not make patients understand the prerequisites and purpose of preanesthesia evaluation. So, the level of understanding among the patients about the field is limited and they were rather apprehensive that they will be administered some kind of anesthesia in the OPD. In our study only 32 % patients knew that it was for Medical check up to rule out major

diseases that may affect anesthesia. About 40% patients thought that anesthesia visit was just for getting fitness certificate. Others thought it was for taking short anesthesia or getting appointment for surgery and 18% had no idea about purpose of Anesthesia OPD visit. In a study conducted by Anju G *et al*, only 40% patients knew about the purpose of visit to PAC (preanesthesia clinic) [4].

**Delay in fitness:** In Anesthesia OPD, a thorough history and checking of records is followed by a focused preanesthesia physical examination. After this, suitable medical tests are advised. Anesthetist may also order physician referral to optimize medical condition. So, it is difficult for patients to receive fitness on their first visit if they are not carrying medical reports or suffering from any other uncontrolled medical condition. Only patients who are found medically fit, low risk and have all records are made fit in first visit. In Anesthesia OPD, 41 % of the patients had to visit more than once to obtain fitness for anesthesia. This was another reason of dissatisfaction of patients in our study. The Causes of delay in fitness were fresh lab tests in 27% patients, 41% for Physician referral and in 32% patient's previous reports and investigations not brought. Anju Gupta *et al* also found that on an average, the patients had to visit more than once to obtain fitness for anesthesia because of ordering unnecessary investigations and lack of coordination between surgeon and anesthetist [4]. Similarly delay in arrival of investigation reports and sending the reference at the closing time of OPD's (29% each) are causes of delayed fitness in a study conducted by Shambulingaiah also reported [24]. In his study, another obvious problem pointed out by the outpatient is that, good number of them has reported that they spent more than 30 minutes in record 28% and radio-diagnosis 25% sections [25]. Due to heavy inflow of patients, patient has to stand in queue right from taking OPD paper (except Anesthesia OPD), doctor's consultation, carrying out investigations etc. Due to increased workload, all investigations are not done same day, so they have to come on some other day for doing investigation. Since all OPDs are not scheduled everyday it becomes difficult for patients to complete referral and investigations in same visit. It has been estimated that 60 to 75% of preoperative tests ordered are medically unnecessary [28] and they only add to the cost and delay the procedure and add to patients inconvenience and discomfort. So Consensus guidelines among anesthetist on the indications for preoperative testing should be established. The average waiting time for most of the patients was <10 minutes in our study. A few patients 22% had to wait for longer time upto 30- 60min before being examined because of shortage of doctors on that day or for that period. The doctors in anesthesia OPD have to attend the cases of GI medicine scopy, Electroconvulsive therapy and Ophthalmology also, so doctor patient ratio is variable. Waiting time for patient is highly dependent on that. Anju Gupta *et al* also got similar finding that most of the patients were examined in less than 20 minutes of their arrival, but some have to wait because of uneven flow pattern of the patients referred by surgical specialties for PAC and overcrowding at peak hours [4]. This problem can be addressed by increasing the number of consulting anesthetists as per workload, developing a screening questionnaire to be used by interns/junior doctors to hasten the process of evaluation, keeping separate timings for follow-up and new patients, and advising

patients about the probable time of his turn at the time of registration to help chalk out his schedule. Screening of outpatients by resident doctors before starting of OPD in order to send them to concerned specialists (82%). This suggestion is in line with the concept of filter clinic as cited by Kuppaswamy (1975).

**Doctor- patient relationship:** Due to lack of separate consulting rooms, almost 40% patients felt discomfort about privacy and disclosing their confidential information. Majority (80%) of patients were not explained the preanesthesia instruction in detail by the anesthesiologist. Due to increased workload, these visits are carried out technically with aim of making patients fit for surgery. Increase in perception trend with increase in educational level is significant. 4% patients didn't ask any query, but 96 % patients were satisfied that whatever queries they themselves asked, were answered by doctors.

**Comparison with previous anesthesia experience:** In our study, 34% of patients were comfortable with current Anesthesia experience as compared to another hospital. Only 1% patient found it worse than other hospital. In study conducted by Pralhad rai Sodani, majority of the patients (above 85%) have observed that doctor's behavior was good at all the facilities and they also felt that the doctor has given adequate time to see the patients [26]. Aldana and his colleagues reported that the most powerful predictor for client satisfaction was the providers behavior towards patients. The behavior of the doctors and paramedical staff in their study was also found to be satisfactory but not exemplary [29]. In a study of patient's perception about knowledge of anesthesia and anesthesiologists, conducted by Dr. Deepa Jathar *et al*, 66.5 % patients didn't recall about preoperative visit of anesthesiologist in OPD [23]. There is clear cut communication gap is seen between patient and anesthesiologists because teams of anesthetists are changing monthly, so every time patient is seen by different anesthesiologists. It was observed during the study that the ultimate satisfaction of a patient is his/her rapport with the doctor. A patient forgets the toll that takes him to reach the services if a doctor sees the patient with compassion [25].

**Patients' suggestions to improve performance:** In our study, only 30% patients suggested to improve performance of anesthesia OPD by measures taken in infrastructure, basic amenities, functioning of Anesthesiologists and coordination with other departments. Patient feedback to assess quality of medical care is as important for this OPD as for any other OPD. Every effort should be taken to increase overall patient satisfaction by increasing the quality of care. Areas which can provide maximal increase in patient satisfaction with minimal expenditure should be accorded high priority. Standards of service of all dimensions could be improved by better communication with the patients.

## 6. Conclusion

Assessing the overall scenario of Anesthesia OPD, it is observed that, despite heavy inflow of patients, the patients were generally satisfied about the following-Medical care and treatment, Registration process, Seating arrangement, Locating the Anesthesia OPD, Delay in fitness due to referral and

investigations, Lack of information about preanesthesia instructions, Lack of privacy and confidentiality and Perception of lack of safe drinking water and clean toilets. The study findings suggest measures may be taken by the policy makers and hospital administrators to improve the services at public health facilities, resulting in the more satisfaction of patients. The findings of the study could be considered as valuable information as a guideline for future planning, functioning and modification in the OPD of future hospitals setup and modification in the existing hospitals. As not many studies are available on OPD, the contribution of the study fills the lacunae in the literature on OPD with reference to Bangladeshi conditions.

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