

## Original Article

**Customers Satisfaction with Health Services Provided by Emergency Departments of Federal Teaching Hospitals, Khartoum, 2005****Hala Awadallah Mohammed MD<sup>1</sup>, and Abdal Rahman Alttom MD<sup>2</sup>**<sup>1</sup> General Specialist (Family Physician), e-mail: hala-1-elfatih@hotmail.com, Mobile: +249-912352287<sup>2</sup> Professor of Community Medicine, Sudan Medical Specialization Board**Abstract**

*The Federal Ministry of Health is trying continuously to provide the best health care through improving service quality and efficiency as expected by those who benefit from these services and to ensure their satisfaction.*

*This study attempts to assess customers' satisfaction both (patients and co-patients), who attend the Emergency Departments of federal teaching hospitals. It also attempts to illicit their opinions and suggestions for improving the quality of these services in order to meet their expectations and achieve their satisfaction. A total of 210 patients and co patients from the Emergency Departments of the three teaching hospitals Khartoum, Khartoum north and Omdurman were selected randomly. Data was collected using a pre-coded and a pre-tested questionnaire. The results revealed high levels of satisfaction with the Emergency Department staff performance and attitude especially with the doctors' performance. Low levels of satisfaction were noticed with other aspects of health services like cleanliness, toilets, food services, the emergency general wards and lastly the Cost of some services.*

**Introduction**

Khartoum State is the capital of Sudan. It is situated centrally and surrounded by seven other states<sup>(1)</sup>. Its surface area is **28000** square Kilometer with a population of **5,548,784** and an annual growth rate of **3.67%**; (**79%** of its population live in urban centers and only **21%** live in peripheries and rural parts)<sup>(2)</sup>.

The Federal Ministry of Health is responsible for providing health care through federal hospitals. It provides tertiary health care as well as primary and secondary health care, in collaboration with the different states ministries of health all over the country<sup>(3)</sup>.

There are **18** Federal hospitals in Khartoum state alone. These are classified into hospitals that contain all specialties, hospitals that contain more than one specialty and hospitals that contain only one specialty<sup>(1)</sup>.

A new organizational structure has been recently established in Khartoum, Omdurman and Khartoum-North teaching hospitals. The accident and emergency department (**ED**) is a relatively new organizational addition. It contains<sup>(4)</sup>:

- **Room D:** for cold, non-emergency, cases.
- **Rooms AandB:** These are resuscitation rooms, equipped to receive critically ill patients: e.g. patients in shock and patients with cardiac and respiratory distress.
- **Room C:** This contains series of rooms with different specialties. In these, emergency cases, which are stable, are attended and managed by the relevant specialist unit.
- **Room T:** This is for surgical emergencies and trauma cases.
- **Asthma Room:** This is equipped and prepared to receive patients with bronchial asthma. It has

diagnostic facilities including X-ray, laboratory and a pharmacy.

- **The ICU:** It has six beds each with a cardiac monitor and ventilator.
- **The short stay wards “24 hours”:** this is a general ward for all departments.
- There is also the main pharmacy. Laboratories and x-ray rooms in addition to administrative offices.

#### **What is patient/customer satisfaction?**

In general satisfaction is a person's feeling of pleasure or disappointment, resulting from comparing a product performance or (outcome) in relation to his or her expectations. If the performance falls short of his/her expectations, the customer is said to be dissatisfied. If the performance matches his/her expectations, then the customer is satisfied. If the performance exceeds ones' expectations, then the customer is said to be highly satisfied or delighted<sup>(5)</sup>.

Patients, family members, referral doctors, suppliers, employees were considered as customers in hospitals<sup>(6)</sup>. The most directly affected by the excellence of health services are the patients themselves and then co-patients. They can be considered as clients/ customers/ or beneficiaries.

Today, customer satisfaction is considered one of the most important evaluation tools for measuring performance of hospital services. It is

an important aspect and measure of service quality in health sector as satisfied patients or customers are more likely to maintain consistent relationship with the service and its provider. Organizations also can address system weakness and improve its care services based on customer satisfaction. Satisfied patients are more likely to adhere to specific medical regimens and treatment plans. Moreover patient satisfaction measurement adds an important dimension and information on performance, therefore

contributing to the total quality management of the health system.

#### **What are the patients' or customers' expectations?**

Patients or customers expect good medical care, good nursing care, short waiting time, excellent hospitality, personal attention, courteous behavior, affordable charges, cleanliness, good coordination, cooperation among the staff, communication and information and transparency in charges and procedures.

This patient/customer satisfaction is determined by the Socio-demographic characteristics of the patient (age, gender, race and income, etc...), The patient health condition (found to affect satisfaction negatively) and the Organization of services (regarding cadre, waiting time, wards cleanliness and nutrition)

The aim of this study is to assess the health care services provided by the EDs of federal hospitals in order to help attain high quality level and excellence.

#### **Methodology**

**Study design:** This is a explorative cross-sectional hospital based study conducted in

the three major teaching hospitals: Khartoum, Omdurman and Khartoum North

**Study population:** All customers (patients, co-patients) attending Emergency Departments at Khartoum State federal hospitals were studied. In case of children less than 14 years, their guardians were interviewed.

**Sample size:** A total of 210 customers were randomly selected from the total attendance during the study period. These were allocated for Khartoum teaching hospital (75), Omdurman teaching hospital (69) and Khartoum-North teaching hospital (66).

**Tools of data collection:** A pre-tested questionnaire was used. After having a verbal consent from the customer, it was filled by a trained interviewer.

**Limitations of the study:** Customers lack the experience and knowledge of how to assess accurately the technical competence of medical, nursing and technical personnel. Furthermore, their physical, mental or emotional status may easily influence their judgment. Customers are influenced by non-medical factors such as interpersonal relations of the provider; for instance, good bedside manners may easily mask questionable technical competence. Some customers may also fear retribution if they complain or voice discomfort.

**Results:**

Out of the total interviewed customers, 76 (36.2%) were patients and 134 (63.8%) were co-patients.

Females represent 140 (66%). The majority (74.2%) lie in the age group between 20-60 years. Fewer of them were either illiterate (16.7%) or university graduates (21.0%).

The reasons pushed the customers to come to EDs include near distance to home (45.7%), referred (27.1%), a known doctor for them (8.1%) and other different reasons. More than one quarter of the cases (27.6%) were cold cases. the remainder were hot cases; (28.1%) of them were allocated to room C (Acute cases) Fig 1.

**Figure 1: Distribution of ED patients in different ED rooms**

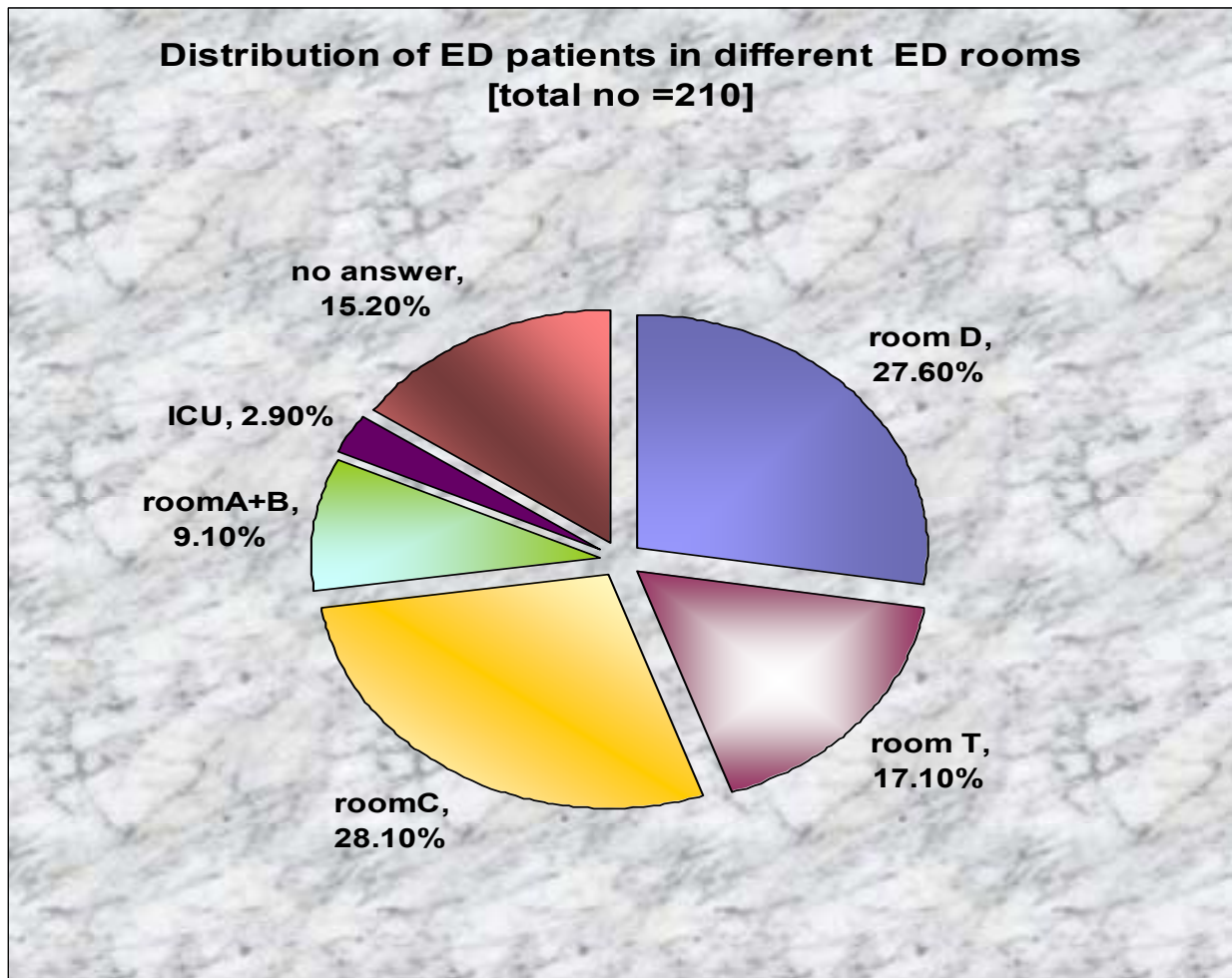
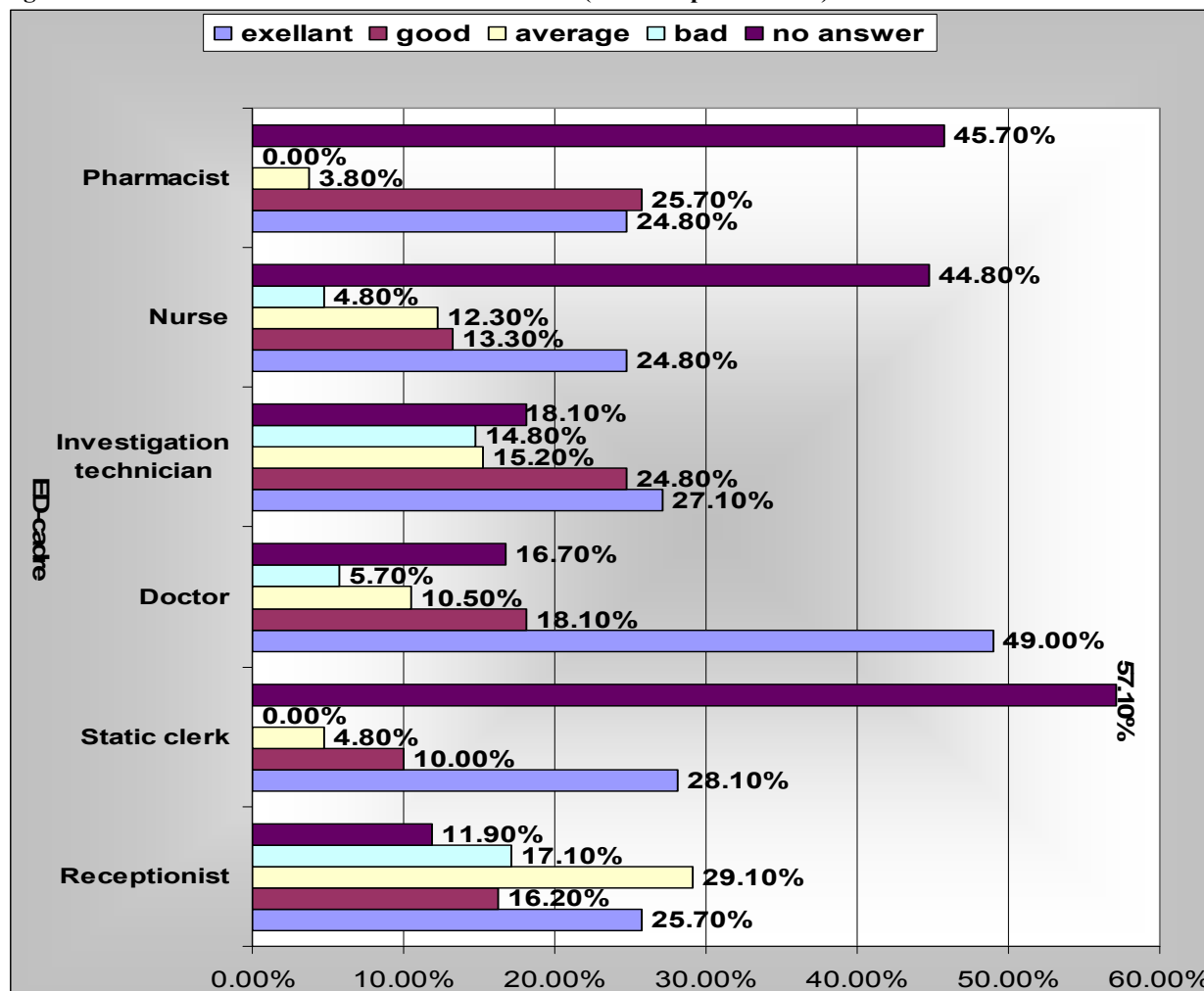


Figure 2: Customers evaluation of the Cadre attitude (total sample no = 210)



As reflected in figure 2, ED-staff attitude towards customers was assigned as excellent by less than 50% of respondents with the doctors scoring as high as 49.0% and receptionist and nurse as low as 25%. Overall those who reported high satisfaction with ED-

cadre attitude were found to be 120 (57.1%) while those who were not satisfied at all were 31 (14.8%). Customer satisfaction level with various services provided at ED, waiting time and cost was reflected in table 1. Generally those who are highly satisfied range between 15.2% to 63.2%.

Table 1: customer satisfaction level with services provided at ED

Services provided	Satisfaction level			
	Highly satisfied	Less satisfied	Not satisfied	No answer
ED-doctors	114 (54.2%)	39 (18.6%)	5 (2.4%)	52 (24.8%)
Laboratory	74 (34.8%)	49 (23.2%)	39 (18.0%)	48 (22.9%)
Cleanliness	135 (63.2%)	28 (12.9%)	38 (18.1%)	9 (3.8%)
Ward	55 (26.2%)	30 (14.3%)	29 (13.8%)	96 (45.7%)

A total of **101** (48.1%) customers were dissatisfied with some aspects of the ED, of them **56 (55.5%)** were dissatisfied with only one aspect, **36 (40.2%)** were dissatisfied with two aspects, and only **9 (8.9%)** were dissatisfied with three or more aspects. Dissatisfaction was reported to be due to too-long waiting time (**70.3%**), some cadre attitudes (39.6%);

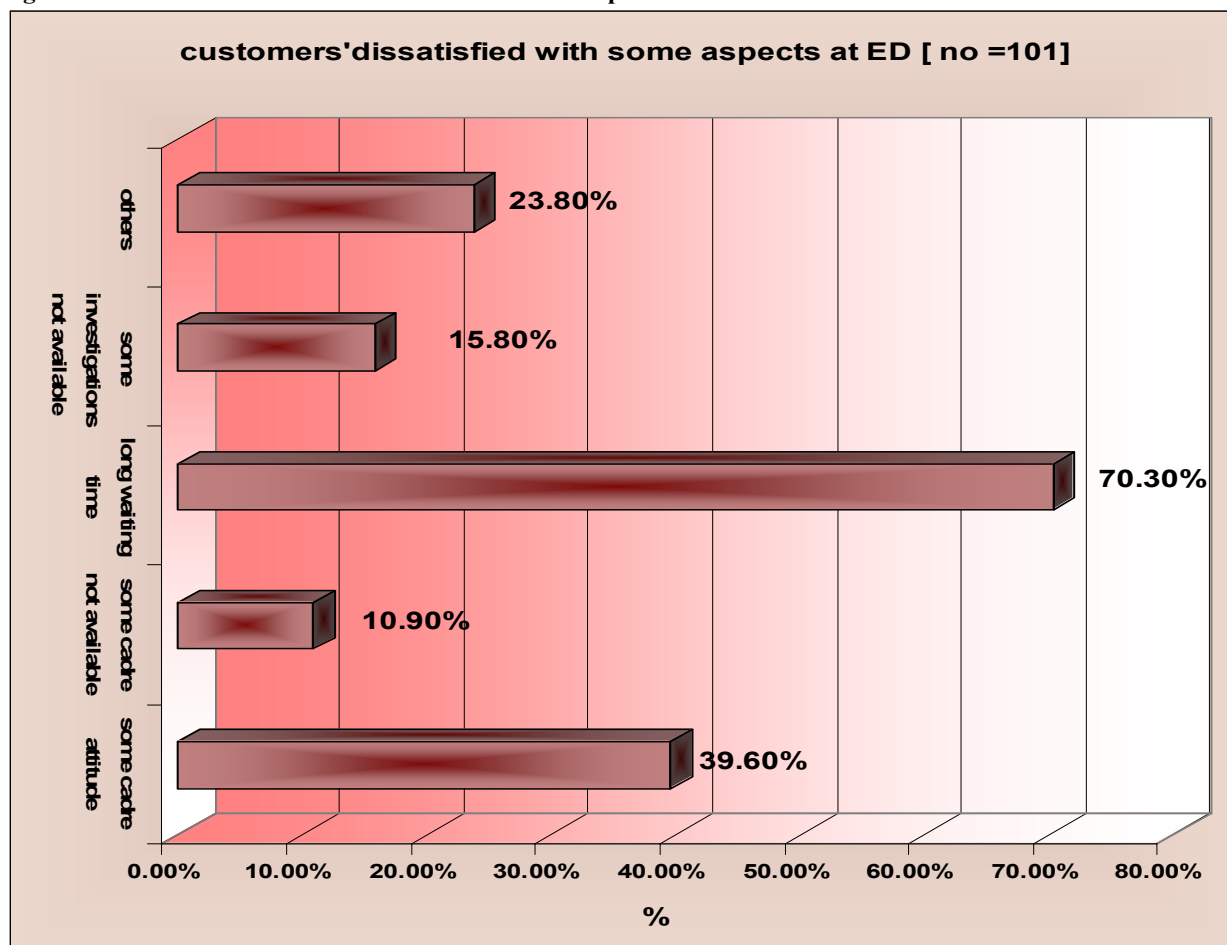
the bathroom cleanliness (**23.8%**), the high cost of some services as well as inadequacy of seating in waiting rooms (figure 3).

The satisfaction index decrease by increase in the level of education (p=0.03) but it has no relation with age (table 2).

**Table 2: Customer satisfaction in relation to education level and age**

Variable	Satisfied	Odd ratio (95% CI)	P-value
Education level:			
• Illiterate	29	-	-
• Basic	98	0.90 (0.5-1.64)	0.71
• University	16	0.44 (0.19-1.00)	0.03
Age group:			
• <20 years	10	-	-
• 20-60 years	108	1.87 (0.82-4.33)	0.10
• >60 years	18	1.80 (0.64-5.13)	0.22

**Figure 3: Customer dissatisfaction level with certain aspects**



## Discussion

### Customer satisfaction with health cadre

This study shows that: customers' satisfaction depends mainly on their satisfaction with health cadre. The higher the satisfaction with health cadre is the higher the satisfaction with the service in general. The way the receptionist interacts with the customer and his/her registration will directly affect his/her satisfaction with the health services in general. In this study, large proportions of study population were less satisfied with the receptionist interaction (29.1%). Satisfaction with statistical clerks was higher than satisfaction with the receptionist; this could be explained by the difference in the working environment. Receptionists deal with all customers, whereas, the statistical clerks deal only with admitted patients who are fewer in number. Less than one third (27.1%) of customers, were highly satisfied with the attitude of the nursing staff, their availability during the day and even their numbers. Satisfaction with medical doctors was higher compared to satisfaction with other cadres. This may be because doctors spend more time with patients. They listen carefully and reassure patients effectively. Sometimes they show empathy. Results obtained from Ohio university hospital in USA and also Khartoum state hospital, show that high proportion is satisfied with the way doctors handle their patients and give information about their condition.

### Waiting time

Whenever and wherever waiting time extended, satisfaction with health service decreased<sup>(7)</sup>. Most of the study population were satisfied with the short waiting time for admission to the wards. This, however, is much less with laboratory procedures. The same was found in another study conducted in

Khartoum in 1999. It also depended on the type of investigation required<sup>(7)</sup>.

In conclusion, customers were, generally, satisfied with the ED services. Customers were satisfied in particularly with cleanliness of the ED and the general ward but not with bathrooms. Satisfaction with food and catering services was average. On the other hand only a small percentage of the study population were happy with the cost. The same result was found in the study of 1999<sup>(7)</sup>. This is because patients usually expect emergency services to be free or very cheap.

The study recommends that training should be provided for all ED-staff focusing on customers handling and patient-doctor relationship as key point in achieving patient satisfaction. A cost-free services, at least, for the first 24 hours in the ED should be provided.

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