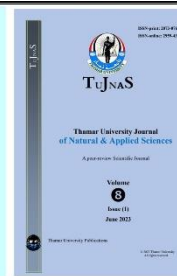


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ORIGINAL ARTICLE

Patient's Satisfaction in Radiology Department in Yemen

Abdulwahab M. Y. Al-Mutahar*

Affiliations:

Faculty of Medicine and Health
Sciences, Thamar University, Dhamar
87246, Yemen

Faculty of Commercial and Economic,
Sana'a University, Sana'a, Yemen

Corresponding Author:

Abdulwahab M. Y. Al-Mutahar,
Email: almutahar2000@hotmail.com

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Abstract

Patient satisfaction is one of the most important indicator of quality of care. Patient satisfaction surveys may provide the means for patient to express concerns about the services received, and to express their views about new services needed. Aim of this study was to determine some of the factors that may influence patients' satisfaction with health care services, particularly radiological department in a Yemen. The study was a cross –sectional study was conducted among patients (aged 18-80 years), that targeted patients who presented at the radiology department over the period of three months. 450 patients attending radiology department of the SGH were taken for the study purpose. Data was collecting using a 20 items self-completion questionnaire designed in line with the objectives of the study. Data were categorized into groups and analyzed to draw the patient's satisfaction to the health care services. Out of the 450 patients interviewed for the study, 290 (64.4%) were males and 160 (34.6 %) were females. Majority of the patients (37.3 %) belonged to the age group 20-39 yrs., followed by 36.9 % in the age group 40-50 yrs. There were only (20.9 %) patients who were more than 50 yrs. of age.. When enquired regarding behaviour satisfaction conducted by different staff members Receptionist, 49 % Technician 68 % and doctors 86.8

% . Patient satisfied with behaviour, privacy and time given by doctors but problem lies with the coast and availability of some services and dissatisfaction was found to be more regarding cleanliness in the toilets and the politeness of some receptionist, high temperature, bed sheets, noise, suitable seats availability should be some urgent issues needing concern. Time waiting from appointment is also still a problem issue.

Keywords

Radiology; Patient satisfaction; Yemen

1. Introduction

Health care quality is a global issue. The health care industry is undergoing a rapid transformation to meet the ever-increasing needs and demands of its patient population [1]. The primary goal of the tertiary care hospital as a highest level of health care provision is to provide best possible health care to the patients. The modern era where it is the right of every patient to demand best possible care in hospitals, it is the duty of every staff member of the hospital to deliver his optimum efforts to the entire satisfaction of the patient [2]. Patient satisfaction is one of the established yardsticks to measure success of the services being provided in the health facilities. But it is difficult to measure the satisfaction and gauge responsiveness of the health systems as not only the clinical but also the non-clinical outcomes of care do influence patient satisfaction [3]. There are five main factors that determine patients' satisfaction with health services: Reliability of services, responsiveness to customer needs, assurance-guaranteeing comfort to patients, empathy, and tangibles like physical appearance of the departments and quality of the equipment.

For the information provided to patients to be effective, it must be provided in a format that is easily understood by the patient (or accompanying person if the patient is not capable of understanding). The level of information should be appropriate to the hazard presented. Hospital radiology departments are known to produce very varied instructions to patients [4]. We use Satisfaction questionnaires as a tool to evaluate whether the management of the department and the efforts made obtain a good result [5].

2. Aim and Objectives

This study was to determine some of the factors that may influence patients' satisfaction with health care services, particularly radiological services in a Yemen in tertiary hospital likely Saudi-Germany Hospital-Sana'a Yemen.

Radiological services can be defined simply as services which are rendered to a patient visiting the radiology department, which can be either routine services those carried out on a day-to-day basis or some special examinations that are carried out on special cases that require the use of contrast agents. The aim of this study to assess:

- 1- Quality of care and patients 'satisfaction in the radiology department in.
- 2- Improved radiological services based on the information gathered to better address the concerns of the patients and ultimately improve their satisfaction with radiological services.

3. Subjects and methods.

A hospital based cross sectional study was carried out in Saudi-Germani hospital Sana'a, which is a bedded tertiary care hospital. The study was conducted from Oct to Dec 2014. The prevalence used for sample size calculation was 80%. The sample size was inflated by 10% to take care of non-response, incomplete responses and refusals. Patients between the ages of 18 and 80 years attending the outpatient department (OPD) and admitted in various specialties of indoor patient departments (IPD) were referred to radiology department included in the study. However, patients advised for or admitted to the intensive care unit /cardiac care unit /emergency with conditions related to psychiatry or maternity and those with severe acute or chronic illness were excluded from the study since these were considered to be exceptional circumstances.

The questionnaire was given to patients to fill it after having been in the radiology department during the period of the study. A total of 450 questionnaires were distributed; The questionnaire was administered by trained individuals after obtaining verbal consent from all subjects. In order to maintain complete confidentiality no names were recorded on the questionnaire. Prior approval of the ethical board was obtained before beginning the survey. Questionnaires were answered by the patients themselves while illiterates were assessed by a patient relationship staff in the hospital who was blinded to the objective of the study and not a member of the radiology department staff. The questionnaire consists of 20 questions distributed as follows:

- The Socio-demographic profile and residency of the patients: it included the 1st three questions (age and gender).
- Questions were asked before doing examination include receptionist dealing with patient for reservation, waiting time from the appointment was requested until the test was performed, facility of choosing time for the appointment according to availability time for the patient and getting information and explanation regarding the examination.
- Questions were asked about the department including easy to find the radiology department on arrival to the hospital and receive services, politeness of staff with you in the department, the time of waiting from the time of the appointment till attendance and if the patient was told about the waiting time.
- Questions were asked about comfort, including availability of free seats, comfort of the seats, temperature and the noise in the waiting room, cleanliness of the department and toilet.

- Questions were asked about professionals including: Doctors and medical staff listening for complains and questions with care, medical and non-medical staff skills and behavior enough good with respect of privacy of patient, giving you information about the test and if there was any different information given from radiology doctors , opportunity to get a help and ask questions about the test, ensure the confidentiality of the information, respect your privacy during the doing test.
- Questions were asked about satisfaction of the service including: the general satisfaction, come back if he needed in future and if the patient will recommend the department of radiology to another patient due to doctors and staff is qualified and cooperative.

3.1 Scoring of the questionnaire

Socio-demographic section in the questionnaire was scored as follows: gender (0=male, 1=female). Patients indicated their level of satisfaction by selecting responses ranging from poor=1, fair=2, good=3, very good=4 and excellent=5. Those who chose poor, and fair were considered dissatisfied while those who selected good, very good and excellent were considered satisfied.

3.2 Analysis of data

The statistical package SPSS10.0 for Windows XP was used to perform the statistical analysis. As the last two questions are the best questions summarizing the objective of the study nominal regression was calculated to measure which variables, best explained the variability in satisfaction with and recommendation of the department. The results obtained for satisfaction.

4. Results

The Socio- demographic profile in table 1 itself shows the importance of the hospital because majority of the respondent were in the age group of 18-80 years, which is economically productive age group for the families belonging to underserved, needy section of the society. The majority of the study samples were female; (160) 34.6 % male; (290) 64.4 %. With the mean group of age 20-39 years old. In the analysis of the association of the socio demographic variables and recommendations of the radiology department to others, there is a statistically significant difference in the gender with the attitude and behavior of the healthcare providers (Table 1 and 2).

Table 1: Socio-demographic profile of the respondents (n=450)

Characteristics	Male No (%)	Female No (%)	Total No (%)
Age			
Under 20 years	19 (4.22%)	3 (0.67%)	22 (4.88 %)
20-39 years	99 (22.%)	69 (15.3%)	168 (37.32%)
40-49 years	94 (20.9%)	72 (16%)	166 (36.9 %)
Over 50 years	78 (17.3%)	16 (3.6%)	94 (20.9 %)
	290(64.4%)	160 (35.6%)	450 (100%)
Geographic Distribution			
Urban	185	103	288 (64%)
Rural	126	36	162 (36%)

It was found that questions about the informed waiting time Q, information before examination Q, noise in the department Q, cleanliness of the department Q, waiting time to appointment Q and conflict of information Q were found to have the highest percentage. The variables statistically affecting the general satisfaction were cleanliness of the department, giving options in choosing the appointment, giving information before appointment regarding the examination or the treatment, waiting time from the time of the appointment was requested until the test was performed in radiology, politeness of persons of the department and being informed about waiting time as shown in (Table 3).

Table 2: Patients satisfaction with the attitude and behavior of the healthcare providers (n=450)

ASPECT OF CARE	SATISFIED in %	DISSATISFIED in %
Behavior of the Receptionist	49 %	51 %
Behavior of the Technician	68 %	32 %
Behavior of the Doctors	86.8 %	13.2 %

Table 3: Availability of General basic facilities in the hospital (n=450)

AVAILABILITY OF FACILITIES	ADEQUATE (%)	INADEQUATE (%)
Toilets	60 %	40 %
Noise	57 %	43 %
Cleanliness	65 %	35 %
Location of Department	88 %	12 %
Waiting room /seating availability & comfort	56 %	43 %
Temperature	74 %	26 %

The variables which statistically affected recommendation of the imaging radiology to the others were giving options in choosing the appointment, waiting time from the time of the appointment was requested until the test was performed in the radiology department, clean toilets, giving information before appointment regarding the examination or the treatment, conflict of information, cleanliness and noise in the department as shown in (Table 3). In the analysis of the percentage of dissatisfaction for the overall questionnaire (Table 4).

Table 4: Patient's satisfaction to radiology services.

PATIENT OVERALL RATING					
Care	Excellent	Very good	Good	Fair	Poor
Doctor-patient	30	22	5.4	28.5	13.9
General facilities availability	26.8	33	11.1	13	6.1
Information & support	43	25	3	13	6.1
Department care	30	27.5	21.8	15	5.7
General satisfaction	35	26	17.5	14.7	6.6

5. Discussion

Satisfaction is a multi-dimensional concept influenced by preconceived thoughts or even previous experiences, which make its measurements and comprehension difficult as an isolated concept. Measurement of satisfaction is part of a concept, which is difficult to quantify and even define. Many authors define it as a subjective concept aimed at relating the grade at which health care responds to the expectations of the patient or community. Satisfaction questionnaires in patients receiving health care are useful tools when evaluating whether the

management of the department and the efforts made obtain a good result [6]. Different studies have found a strong association between the perception of the global quality of a department and the satisfaction of the patients.

In our study, the socio-demographic characteristics of participants showed that most of them were males (64.4 %). This result controversial with Caminals study [4] which reported that 58% of those surveyed were women. The socio-demographic characteristics (gender, geographic distribution and health status) significantly affect the overall impression on the radiology department. Gender only significantly affect the recommendation of the department to the others and this agrees with Andres *et al.* [7], while it was controversial with Perez *et al.*, study [6], who reported that socio-demographic characteristics did not affect the overall impression or recommendation of the department to the others.

The social aspects result like giving information about waiting time, information before examination and conflict information were unsatisfactory to the patients. This explained by low level of education of most the patients and many procedures of imaging radiology includes many steps as some cases of scan required preparation, fasting or dynamic images or IV contrast (need creatine test) prior to the IVP,CT and angiogram test. Reception of the patients on arrival will affect their satisfaction since the successful application of medical knowledge depends on the patients' perception of hospital personnel and the hospital itself, radiodiagnostic services found that adequate explanation and instruction to the patient about the procedure before the examination that is carried out is necessary since it significantly contributes to obtaining a good diagnostic image [8].

In our study, patients were not satisfied with the degree of cleanliness and noise in the department and these results disagree with Okaro *et al.*, study [9], who reported that the waiting areas were recognize as uncomfortable by 83.7% of the study population. In our study, the waiting time from the time of the appointment was requested until the test was perform in imaging radiology or the length of the waiting time greatly affected satisfaction of the patients, and this agrees with many of studies [10] which consider waiting time as an important parameter in affecting the satisfaction of health care user.

Respect for privacy dissatisfaction may be attributed in part to the poor conditions of changing rooms, waiting areas, and design of examination rooms. Patients often feel a sense of intrusion of their privacy, when the examination rooms are not guarded against other staff and patients. Staff attitude and courtesy are among high dissatisfaction levels which may also be partially attributed to a large number of patients who visit this facility, each expecting to leave early and may sometimes lead to altercations between receptionist and patients. Staff were,

however, not justified to be of bad behavior to patients based on this reason. This is in line with the study conducted in Ghana, but this is in contrast with the study conducted in Ethiopia, which shows high satisfaction level in that item [11].

6. Conclusions

This study shows assessing satisfaction of patients is simple, easy and cost-effective way for evaluation of hospital services and has helped finding that patients admitted in SGH Sana'a Hospital were more satisfied with behavior of doctors, but problem lies with the cost and availability of some services and dissatisfaction was found to be more regarding cleanliness in the toilets and the politeness of some receptionist. Bed sheets, noise, suitable seats. High temperature availability should be some urgent issues needing concern. Time waiting from appointment is also still a problem issue.

Patients' satisfaction is greatly affected by many factors which can be improved by the radiology department staff dealing pattern as waiting time, cleanliness of the department and most these factors can be refined by improving the system of booking and registration and training the department staff to simplify the imaging radiology procedure to the patient and prepare them for any unexpected changes in the time schedule.

Certain improvements are also needed in the waiting area by making it informative and comfortable. Hospital administration should ensure that all the equipment's are working properly and well maintained. The fact that some patients expressed dissatisfaction with the services indicates that health care providers need to do more in the drive towards improving service windows in order to improve efficiency, minimize patient waiting times and provide for patient comfort. Periodic patient satisfaction survey should be institutionalized to provide feedback for continuous quality improvement.

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