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Full Length Research Paper

The impact of the status of hospital accreditation on patient satisfaction with the Obstetrics and Gynecology Clinics in the Eastern Province, Saudi Arabia

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Abstract

It is believed that the process of accreditation, whether mandatory or voluntary, that many hospitals have been undergoing in recent times provides attainable standards of improvement in the quality of patient care, ensures a safe environment, and reduces medical errors. Though Saudi Arabia is one of the first countries in the Eastern Mediterranean Region to implement healthcare accreditation standards, there is very little information about its impact on patient satisfaction with the healthcare services. The objective of this study is to determine the quality of health care services provided by accredited and non-accredited hospitals in the Obstetrics and Gynecology clinics, using the views of patients. A cross-sectional study was conducted from the first of April to the end of May 2011, at one accredited and a non-accredited hospital. A questionnaire was used to assess patients' perceptions of the quality of health care provided in the Obstetrics and Gynecology clinics. A total of 420 patients were surveyed. A 5-point Likert scale was used to rate the scales in the survey tool. The results showed statistically significant differences in patients' satisfaction between the accredited and non-accredited hospitals in Clinical Care Facilities, Professionalism in Clinical Ultrasound, Professionalism in the Laboratory and Overall Satisfaction. Patients in the accredited hospital were more satisfied with all above-mentioned subscales, except the laboratory subscale which scored higher at the non-accredited hospital. Patients at the accredited hospital were more content with the quality of health care provided for them at Clinical Care Facilities, Professionalism in Clinical Ultrasound and indicated higher overall satisfaction than those at the non-accredited hospital.

Keywords: Accreditation, quality care improvement, patient, satisfaction, obstetrics and gynecology.

INTRODUCTION

In recent years, many hospitals around the world are going through the accreditation process either compulsorily or voluntarily. In the United States of America, for instance, it is mandatory for hospitals to have accreditation in order to be classified as providers in the Medicare program (Sprague, 2005) while accreditation is still voluntary in such other countries as Germany (Sack et al., 2010).

The benefits of accreditation are embodied mainly in its cost containment, in being a useful measure for quality evaluation, an effective means of management, and a quality indicator for marketing (Joint Commission International or JCI, 2012; Sack et al., 2011).

The literature emphasizes that hospital accreditation and patient satisfaction are both considered important quality indicators of healthcare delivered (Heuer, 2004). The results of patient satisfaction surveys can be used to monitor the quality of health care provided (Al-Habdan, 2004; Ravi and filani, 2002), to find out any shortages, to provide the necessary interventions (Al-Habdan, 2004), and as a valuable source of strategic planning of health

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services (Saeed and Mohamed, 2002).

The main constituents of patient satisfaction include, but are not limited to, waiting time (Spendlove et al., 1987; Kurata et al., 1992; Westaway et al., 2003), cleanliness of the unit (Westaway et al., 2003; Al Tehewy et al., 2009), attitude of both doctors and nurses (Al Tehewy et al., 2009), communication and professional skills of physicians (Saeed and Mohamed, 2002; Kuteyi et al., 2010), physician-patient contentment (Salah et al., 2001), access to care services (Salah et al., 2001; Margolis et al., 2003), provision of information by the doctor (Al Tehewy et al., 2009; Kuteyi et al., 2010), and privacy (Westaway et al., 2003). In addition, Ware et al. (1983) claim that the main components of patients' satisfaction are: interpersonal manner, technical quality, accessibility, cost, efficacy, continuity, the physical environment, and availability of resources.

The literature emphasizes that patients who are satisfied with the provision of health care tend to be more compliant to their treatment plan, maintain their follow up visits (Saeed et al., 2001); and are more willing to recommend the hospital to others (Mosad, 2006).

Previous studies on the impact of the status of hospital accreditation on patient satisfaction have yielded conflicting results. Though accreditation is believed to have a positive impact on patient satisfaction (Al Tehewy et al.,, 2009), some studies have shown that hospital accreditation had neither any significant effect on the level of patient satisfaction (Hayati et al.,, 2010; Sack et al., 2010), nor any significant association with patient satisfaction with hospital care (Heuer, 2004; Greenfield and Braithwaite, 2008; Sack et al., 2011).

A study done by the World Health Organization in the Eastern Mediterranean region, (World Health Organization, 2003), in 2000, revealed an absence of accreditation programs in this part of the world. Since then, a number of countries in the region have initiated programs for accreditation (El-Jardali, 2007).

Saudi Arabia is one of the first countries in the Eastern Mediterranean Region to fulfill healthcare accreditation standards (Al Awa et al., 2010). A total of forty-one hospitals have implemented accreditation programs in Saudi Arabia (JCI Accredited Organizations, 2012) so far. The first hospital in Saudi Arabia to attain accreditation was King Faisal Specialist Hospital and Research Center in Riyadh, Saudi Arabia in 2001 (Al-Qahtani, 2009). Since then, not much has been published on the influence of the status of being accredited on the customer's evaluation of the healthcare services in Saudi Arabia.

This study will contribute to the existing knowledge of the impact of the status of the hospital's accreditation on patients' perceptions of the quality of healthcare services.

Objectives

The main objective was to compare the level of the quality of health care services provided by accredited and non-accredited hospitals based on patients' perceptions in Obstetrics and Gynecology clinics in the Eastern Province of Saudi Arabia.

MATERIAL AND METHODS

Study setting

The study was conducted in Al-Khobar in the Eastern Province, Saudi Arabia, at two hospitals, one of which was accredited and the other not.

Study design

A cross-sectional study was conducted from the first of April to the end of May 2011.

Target population and sample size

The study focused on patients, the main consumers of health care services. Patients' perception or satisfaction of the quality of health care services is considered a good indicator of the quality of health care (Hayati et al., 2010). The inclusion criteria were: i) Female outpatients attending at the selected settings for antenatal care during the period of the study, ii) Female inpatients who gave birth at the selected settings during the period of the study. The exclusion criteria were:

(i) Patients who were presenting at the selected settings for the first time, (ii) Patients in the waiting room who had not completed the survey, iii) Patients who spoke neither English nor Arabic.

Assuming that adequate antenatal care services were provided to 50% of females attending the antenatal care service, at 5% level of significance and 5% precision, the minimum required sample size was 382 persons. To compensate for 10% refusal rate, the sample size was raised to 420 persons.

Sampling technique

Sampling was consecutive. During the period of sample collection, all consecutive outpatients' females attending the antenatal clinic for a regular visit or female inpatients who gave birth in the selected settings during the period of the study were eligible for inclusion in the study. Samples were taken either until the predetermined sample sizes were achieved or up to eight weeks. As the total sample required was 420 subjects, 210 subjects from each study site participated. For both accredited and non-accredited hospitals, a total of 210 patient questionnaires out of 230 and 250 were completed, yielding response rates of 91%

and 84% respectively.

Data collection tools

The data were collected using a questionnaire, adapted from Al-Qahtani (2006), to assess the quality of health care services provided in the Obstetrics and Gynecology clinics by the hospitals. This assessment was based on patients' perceptions. The questionnaire consisted of 39 statements that covered 6 subscales: Clinical care facilities; General services; Professionalism in Clinical Ultrasound; Doctor's Professionalism; professionalism in the Laboratory; and Overall satisfaction. These statements sought to measure participants' views on the quality of care provided for them on a Likert scale ranging from 1= very dissatisfied to 5= very satisfied. In addition, two open-ended questions were included to give the participants the chance to report on what they liked or did not like about the gynecology service in their hospitals. The questionnaire also included socio-demographic characteristics, such as age, nationality, educational level, marital status, economic status, area of residence, number of children, nature of delivery, and duration of follow up. A pilot study was carried out with a group of 20 patients at both hospitals in April 2011, to discover any possible ambiguities in the questionnaire. The result showed that the questionnaire was clear showing no ceiling or floor effect in the pilot study.

Approval

Before proceeding with the study and distributing surveys, approval was obtained from the administrators of the two hospitals.

Statistical analysis

A non-parametric statistical analysis was performed using the Statistical Package for Social Sciences (SPSS, IBM, Chicago, Illinois, USA) version 15. Descriptive analysis was performed for the closed questions and the mean scores computed for every scale and subscale based on the number of items. The open-ended responses were organized using basic content analysis to identify meaningful patterns in the data as follows: first; a reading of the responses given by each participant to a single open-ended question to identify response emergent categories/theme. Second, each response was classified into one of the identified categories. Two of the authors of this study individually categorized the responses to find out any similarities or differences in the sorting. The process was repeated until no major differences in the sorting were found. Third, a quote was used to reflect the content of all the responses in each category, and the number of responses in each category counted and reported.

Cronbach's alpha coefficient was used to assess the internal consistency of the questionnaire and Spearman rho coefficient used to assess the association between the variables under study.

To elicit any statistical significant differences between patients' assessments of the quality of health care provided by accredited and non-accredited hospitals, Mann-Whitney U-Test was used.

Kruskal-Wallis test was conducted to explore the following: (a) any statistical significant differences in patients' assessments of the quality of health care based on the variables under the study. Microsoft Office Excel version 2007 was used for graphic presentation of data. For all tests, the 0.05 level of significance was used as the cut-off value for statistical significance.

RESULTS

Reliability and validity of patient survey

The results of the Cronbach's alpha values, to assess the internal consistency of the survey, were interpreted along lines suggested by Richardson (1988). The Cronbach's alpha coefficient for Clinical care facilities ($\alpha = 0.86$), General services ($\alpha = 0.78$), Professionalism in Clinical Ultrasound ($\alpha = 0.88$), Doctor's Professionalism ($\alpha = 0.93$), Professionalism in the Laboratory ($\alpha = 0.89$), and Overall satisfaction ($\alpha = 0.84$) were *high to very high*.

Validity for the patient survey was calculated by correlating every item to its respective dimension score; all correlation coefficient values were significantly positive. The values between each item and its respective dimension ranged between 0.65 and 0.86, and the value between each item and the total score of the patient survey correlated between 0.48 and 0.76. All values were significant at 0.01.

Demographic Data of Patients

Table 1 show the descriptive statistics on patient samples. It revealed that the majority of sampled patients at accredited and non-accredited hospitals were Saudi (70.5 %, 81.4% in sequence); most of whom were aged between 30 and 45 years (51% and 59% respectively), and the majority of whom (97% and 87% respectively) were married. The majority (65%) of the sampled patients at the accredited hospital had higher education while the majority (73%) of those at the non-accredited hospital had primary school education.

The majority of the sampled patients at both accredited and non-accredited hospitals lived in Al-Khobar (53% and 67 % respectively). Approximately, one-third of patients at the accredited and one-fifth at the non-accredited hospital lived in Dammam. Correspondingly, a small number of the samples lived in Dhahran (11.4 % of patients at the

Table 1. Descriptive Statistics on the Patient Sample

Variables	Characteristics	Accredited Hospital		Non-accredited Hospital	
		N	%	N	%
Nationality	Saudi	148	70.5	171	81.4
	Non-Saudi	62	29.5	39	18.6
Educational Level	Primary education	73	34.8	153	72.9
	Higher education	137	65.2	57	27.1
Marital Status	Single	5	2.4	16	7.6
	Married	204	97.1	182	86.7
	Divorced	-	-	7	3.3
	Widow	1	0.5	5	2.4
Economic status	Low	82	39	164	78.1
	High	128	61	46	21.9
Area of Residence	Khobar	112	67.1	141	67.1
	Dammam	66	88.6	45	21.4
	Dharan	24	95.7	15	7.1
	Others	8	100.0	9	4.3
Any Children	Yes	181	86.2	163	77.6
	No	29	13.8	47	22.4
Type of Birth	Normal birth	120	57.1	89	42.4
	Cesarean section	51	24.3	31	14.8
	Not applicable	28	13.3	44	21.0
	Both	11	5.2	46	21.9
Follow Up	Regular	164	78.1	141	67.1
	Infrequent	46	21.9	69	32.9
Age groups	< 30 years	99	47.1	67	31.9
	30-45 years	106	50.5	123	58.6
	> 45 years	5	2.4	20	9.5
Number of children	None	28	13.3	46	21.9
	< 5 children	154	73.3	104	49.5
	> 5 children	28	13.3	60	28.6

accredited and 7.1 % of patients at the non-accredited hospitals). The rest lived in various other cities such as Jubail, Ras Tanura and Abqaiq (1.9 % of those at the accredited and 4.3 % of those at the non-accredited hospital).

On the question of economic status, the income of most of the patients (65%) at the accredited hospital was high, but 78 % of patients at non-accredited hospital belonged to the low income group.

About 13% of patients at the accredited hospital, and one-fifth of patients at the non-accredited hospital had no children. Seventy percent of the patients at the accredited and half of those at the non-accredited hospital indicated that they had fewer than five children. Normal delivery was predominant in both hospitals (57 % in accredited and 42 % in non-accredited).

The majority of patients in both hospitals (78 % at accredited and 67% at non-accredited) attended the hospital on a regular basis. About 22% of the patients at the accredited and 33% at the non-accredited hospital indicated that their attendance at hospital was irregular.

Comparisons of Patients' Perceptions on Survey Subscales

Figure 1 show that patients at both hospitals had positive perceptions of the quality of all health care services provided by their hospital, though some services were seen as more positive than others. For the accredited hospital, the perception of the 'Overall satisfaction' subscale (mean =4.4) was more positive than all other subscales; this was followed by 'Doctor's Professionalism' subscale (mean= 4.3). On the other hand, at the non-accredited hospital, 'professionalism in the Laboratory' (mean= 4.3) was the most positive followed by the 'Doctor's Professionalism' subscale (mean= 4.2).

Table 2 indicates that there were significant differences in patients' assessment of the following subscales: Clinical care facilities (p = 0.00), Professionalism in Clinical ultrasound (p=.001), Professionalism in the Laboratory (p=0.00) and Overall satisfaction (p=.005). At the accredited hospital, scores for Clinical care facilities, Professionalism in Clinical Ultrasound and Overall satis-

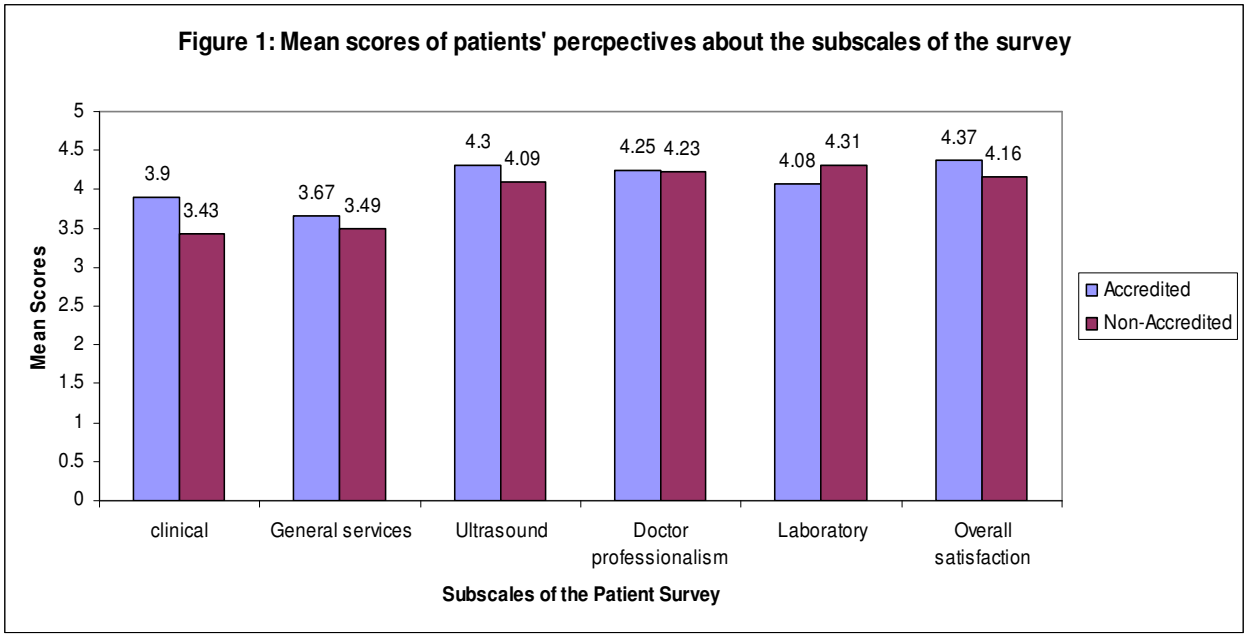

Table 2. Comparisons of Patients' Perceptions on the Survey Subscales

Subscale	Accredited (n=90) Mean Rank	Non-accredited (n=74) Mean Rank	p-value
Clinical Care Facilities	237.15	183.85	.000
General Services	221.0	200.0	.075
Professionalism in Clinical Ultrasound	230.68	190.32	.001
Doctor's Professionalism	208.73	212.27	.764
Professionalism in the Laboratory	187.48	233.53	.000
Overall Satisfaction	226.79	194.21	.005

faction were higher than the non-accredited hospital. In contrast, Professionalism in the Laboratory scored higher at the non-accredited hospital.

Comparison of Patients' Perceptions of the Survey Subscales Based on Demographic Variables

The results of the comparisons between patients' perceptions of the quality of health care services provided by the two hospitals, based on demographic variables, revealed statistically significant differences as follows:

Regarding educational status, significant differences were observed at the accredited hospital for Clinical care facilities (p=.018) and General services (p=.011). However, there was a significant difference at the non-accredited hospital in the Overall satisfaction subscale only (p=.026). For both hospitals, patients with primary education were more satisfied than patients with a higher level of education.

With regard to patient type, there were significant differences between the perceptions of inpatients and outpatients in the accredited hospital on subscales such as General services (p=.004), Doctor's professionalism (p=.000) and Overall satisfaction (p=.003). For the non-accredited hospital, significant differences were found in all six subscales (p-value range from 0.00 to 0.04). For both hospitals, inpatients' scores of satisfaction were higher than outpatients.

On the duration of follow up, there were significant differences between perceptions of patients who attended the clinic regularly and those who were irregular with

attendance at the accredited hospital with regard to Doctor's professionalism (p=.002) and Overall satisfaction (p=.015). For the non-accredited hospital, there were significant differences in Clinical care facilities (p=.004) only. For both hospitals, patients who attended hospital regularly had higher satisfaction scores than those whose attendance was irregular.

Concerning economic status, significant differences were found between the perceptions of patients at non-accredited hospital only, with regard to the Professionalism in Clinical Ultrasound (p=.046), and Doctor's Professionalism (p=.012). Patients whose economic status was low indicated greater satisfaction.

The results revealed significant differences between the perceptions of Saudi and non-Saudi patients in both hospitals on Clinical care facilities subscale only (p=.005 and p= .028 for accredited and non-accredited hospitals). In both hospitals, non-Saudis had higher satisfaction scores than Saudi patients.

The results showed that at the accredited hospital only, there were significant differences in the perceptions of patients based on their area of residence with regard to the following dimensions: General services (p=.004); Doctor's professionalism (p=.000); Clinical services (p=.028); and overall satisfaction (p=.000). Patients who lived in the Dhahran area were less satisfied with the quality of clinical service, general services, doctor's professionalism, and their scores on overall satisfaction were less than those from other towns. In contrast, patients who lived in such areas as Abqiq and Jubail were more satisfied with the above services than other patients. With regard to the demographic variables such as marital status, patients with children and type of delivery, the results revealed no significant differences between the perceptions of patients at both hospitals on all subscales of the survey, except the Overall satisfaction subscale (P=.024 for accredited hospital patients only), where patients who had children had higher scores on this subscale compared with those who had none.

Correlation analysis Results

Correlation analysis between patients' perceptions of the quality of health care services and their demographic variables was done. For the accredited hospital, this revealed significant association between patient scores on the General services and both educational levels (r =-.175, p =.011) and patient types (r=-.198, p=.004); patient scores on Clinical care facilities and their level of education (r =-.164, p =.018); patients scores on Doctor's Professionalism and patient types (r= -.198, p= .004). In addition, there were significant associations between patients' scores on General satisfaction and the following: age groups of patients (r =.139, p =.045), those with children (r = -.156, p =.024), number of children (r= .160, p = .021), and patient types (r= -.205, p= .003).

Examples of their comments

For the non-accredited hospital, correlation analysis revealed a significant association between patients' score for the General satisfaction subscale and their level of education (r =-1.54, p=.026); patients' score for Professionalism in Clinical Ultrasound and both economic status (r = -1.38, p =.046) and patient types (r= -.186, p= .007); patients' scores for Doctor's professionalism and both economic status (r = -1.74, p =.012) and patient types (r= -.147, p= .034); patients' scores on Professionalism in Laboratory and both marital status (r = 1.56, p =.024) and patient types (r= -.142, p= .040); patients' score for General services and patient types (r=-.316, p=.000); patients' scores for Doctor's professionalism and economic status (r= -.174, p= .012), patients' scores for Clinical care facilities and patient types (r=-.401, p=.000). Additionally, significant associations were found between patient's scores for General satisfaction and the following: marital status (r =.164, p=.018), level of education (r=-.154, p= .026), and patient types (r= -.227, p= .001).

Patients' Open-ended questions

What do you like the most about your hospital?

For the accredited hospital, what patients liked the most related to the availability of good doctors, good care for patients, good interpersonal communication between nurses and patients, and the level of cleanliness at the hospital.
Comments included:
"Qualified doctors" (22 patients)
"How nurses treat patients" (12 patients)
"Taking care of patients" (11 patients)
"Good healthcare provided" (5 patients)
"Hygiene of hospital" (4 patients)
"Being cooperative with patients" (4 patients)

On the other hand, they were most unhappy with long waiting time at visits, the appointment procedure, nurses' attitude, absence of new equipment, and unhygienic toilets.
Examples of their comments include:
"Long waits" (44 patients)
"The appointment procedure is not good" (20 patients)
"Nurses' attitude" (6 patients)
"There is no new equipment" (5 patients)
"Dirty toilets" (5 patients)

For the non-accredited hospital, what patients liked the most related to the physician's attitude, respect shown by nurses and doctors to patients, good care given to pregnant women and those who had delivered, and cleanliness of the hospital.

"Physician's attitude" (9 patients)
"Respect shown by nursing staff and doctors to patients" (9 patients)

"Good care given to pregnant women and women who had delivered" (4 patients)
"Hygiene" (4 patients)
"Availability of health educational material" (2 patients)
On the other hand, they were most unhappy with the long waiting periods and the long intervals between appointments, the presence of interns in the examination room, the smallness of the waiting area and the uncomfortable chairs, and the dirty bathrooms.
Examples of their comments:
"Waiting time" (24 patients)
"Interns in the examination room" (14 patients)
"Long intervals between the appointments" (9 patients)
"Uncomfortable chairs" (6 patients)
"Dirty bathrooms" (5 patients)
"Small waiting room" (4 patients)
"Seeing a different doctor at each visit" (3 patients)

DISCUSSION

The survey used in this study revealed high reliability and adequate validity. This meant it was a good measurement tool for the identification of areas needing improvement.

The study findings revealed that patients at both the accredited and non-accredited hospitals expressed their deep appreciation for the hospital services in the following dimensions: Professionalism in the Clinical Ultrasound; Doctor's Professionalism; Professionalism in the Laboratory, and Overall satisfaction. They were happy with the degree of respect andprivacy afforded them when an ultrasound was done, the ease of communication with doctors, the doctors' responsiveness to the patients' questions, the provision of accurate information in simple terms about their condition by the doctor and the maintenance of confidentiality of the patient's health issues. They were pleased with the attention the doctor paid to their complaints, the accuracy of diagnosis and the concern and interest shown by the doctor. On the other hand, the lowest satisfaction scores reported by patients at both hospitals related to the long waiting time to be seen by a doctor. This was the major concern for all patients.

In spite of this, the level of satisfaction with the quality of health care services differed statistically significantly between patients at the accredited and non-accredited hospitals. This finding supported that in the study by Al Tehewy et al., (2009), but in conflict with the studies by Hayati et al., (2010) and Sack et al., (2010). Patients at the accredited hospital were more pleased with the quality of health care with regard to Clinical care facilities, Professionalism in Clinical Ultrasound, and with Overall dimensions such as the quality of clinical care and the performance of nurses as compared with those at the non-accredited hospital. Patients at the accredited hospital revealed their great satisfaction with the waiting rooms. They were happy with the comfortable chairs available, safe drinking water, and clean bathrooms with sanitary materials provided. The help and kindness shown by the nurses during registration and file retrieval added another dimension to their satisfaction with the quality of care in their hospital. In addition, they were satisfied with the routine checkup at each visit, the intervals between the visits, the rapport with the ultrasound personnel, the respect for privacy during ultrasound, and the ability to see the image of the ultrasound during the procedure.

It is interesting to note that patients at the non-accredited hospital were significantly more satisfied with the professionalism in the laboratory than those in the accredited hospital. The highest satisfaction scores were on statements that related to the level of respect given to them by the lab technician, the way the technician worked and the good clinical experience they had with the lab technician. One possible explanation for this level of contentment may be that 10 labs are in constant use at this non-accredited hospital resulting in prompt service.

The results of the comparison of patients perceptions at the hospitals based on their demographic variables showed that in both hospitals the level of satisfaction with some dimensions was higher for patients with primary school education than patients with higher education. These results support the findings of Hayati et al., (2010) and in partial accord with the findings of Margolis et al., (2003). One possible explanation may be the difficulty of meeting the superior expectation of patients with high level of education who have a good knowledge of modern technology and the novel ways of providing good quality care. Conversely, Patients with low education may not always be aware of their rights to good service and are, therefore, satisfied with whatever is provided.

Regarding patients' economic status, the study results showed that patients with low incomes had higher levels of satisfaction. This result is consistent with the study results of Hayati et al., (2010).

The results showed no significant differences based on age between perceptions of patients at the two hospitals on the quality of health care services. This finding contradicts that of Hayati et al., (2010), but is in accord with the findings of Al Qatari and Haran (1999), which showed no significant differences in patient satisfaction based on age. Moreover, the significant differences found in patient satisfaction based on nationality contradict the Hayati et al., (2010) study.

The results showed that inpatients, whether in accredited or non-accredited hospitals, had higher satisfaction levels than outpatients. The reason might be that because of their stay in hospital, inpatients were usually more familiar than outpatients with the quality of care provided.

The results of the open -ended questions indicate that patients in both hospitals were very satisfied with physicians' attitude, the level of respect given them by the nurses and doctors and the cleanliness of the hospital. However, all patients complained of the long waiting time and appointment procedures.

More specifically, patients at the accredited hospital were very satisfied with availability of qualified doctors to treat them. On the other hand, some patients complained about the long wait for laboratory results.

In contrast, patients at the non-accredited hospital complained of the lack of candour between them and their doctors, the cause of which might be, as mentioned by a patient, the presence of interns in the examination room, which inhibited candid communication between doctor and patient.

CONCLUSION

Patients at the accredited hospital were happier with the quality of health care provided for them at the clinical care facilities, clinical ultrasound professionals and overall performance than patients at the non-accredited hospital.

Limitation

The main limitation of this study was the smallness of the number of accredited and non-accredited hospitals included in the comparison. The study was conducted only in the Eastern Province of Saudi Arabia. Accordingly, any generalization of the study should be done with circumspection.

RECOMMENDATION

This study focused on exploring patients' perceptions about the quality of health care as an indicator of quality improvement in health care. It is recommended that the perception of other users/stakeholders of health care should be assessed, and indicators other than perception evaluated. It is also recommended that a yearly continuous assessment on quality improvement should be performed and evaluation of patient outcome done because of the on-going changes in the hospitals. Hospitals should study the factors that contribute to lengthy waiting time and try to reduce it. For a start, an appointment system should be established and patients encouraged adhering to them. Also, hospitals should focus on meeting patients' needs, by up-grading their care services and equipment.

Finally, it is highly recommended that non-accredited hospitals start the journey towards accreditation, since this is likely to have a positive impact on patients' satisfaction and improve the quality of health care in Saudi Arabia.

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