

External Evaluation of Four Hospitals According to Patient-centred Care Standards

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ABSTRACT

Introduction: Hospital accreditation is a multi-factorial issue. The aim of the current study was to accredit social security organization and university hospitals (that certificated by ISO 9001-2008) in Isfahan, the second largest city of Iran, based on Joint Commission International (JCI) accreditation standards. Methods: Accreditation of four hospitals was evaluated and compared in a cross-sectional study. Seven checklists were driven from patient-centered JCI accreditation standards to cover indices of access of patients to care and continuity

of care (ACC), patients and families rights (PFR), patients and families education (PFE), assessment of patients (AOP), care of patients (COP), analgesic and surgical care (ASC), and medication management and use (MMU). They were filled out by seven inspectors. The findings were analyzed by SPSS 14 (SPSS Inc., Chicago, IL). Results: Beheshti and Zahra hospitals demonstrated the lowest and the highest mean levels preparation, respectively (60 vs. 68.5 percent, respectively). Also, Beheshti hospital revealed the lowest prepared levels in AOP, ASC, MMU and PFE among all evaluated hospitals; the corresponding mean amounts of

preparation were 68, 82.5, 56 and 42 percent, respectively. Whereas Zahra hospital showed the highest prepared levels in AOP, COP, MMU and PFE among all evaluated hospitals; the mean amounts of preparation were 82, 61.5, 84 and 57 percent, respectively. No significant difference was found among the four hospitals in any of the seven indices. Discussion: The four evaluated hospitals were not fully prepared to present the best possible patient-centered care system.

Key words: Patient care, patient rights, patient education, patient assessment, analgesia and surgical care, medication management.

1. INTRODUCTION

There are six characteristics that differentiate an excellent health care service from an ordinary one as follow: person-centered, timely, safe, equitable, efficient and effective (1). A patient-centered hospital needs attention to many factors such as appropriate access of patients to the health care system, proper assessment of patients, logical medication management, and anesthesia and surgical care (2, 3, 4). Improving clinical processes mandates organized planning, measurement and leadership (5, 6). Then, many departments must be involved in an efficient framework to achieve maximum benefits. External assessment of health care organizations according to published standards is a recognized way to find the pitfalls of the compliance with the standards (7, 8). Accreditation is a multi-factorial issue depending on resources, cultures, laws, environment and definition of the end points (10, 11, 12, 13). Although the compliances with the standards are increased be-

fore external assessments, it is not clear whether this pattern will end in better clinical efficacy (14, 15, 16, 17, 18). Accreditation programs have been started in developing countries in the recent years. The aim of this study was to compare accreditation of four hospitals in the second largest city in the country.

2. METHODS

Design and Research Population

This was a cross-sectional study to evaluate accreditation of four hospitals, Beheshti, Gharazi, Shariati and Zahra. In order to conduct the study within each hospital, the administrative approval was obtained from the related authorities of the hospital.

Measurement Tools

Seven checklists were selected for compliance with the standards on patients' access to the health care system, rights of and education for patients and their families, patients' assessment, anesthesia and surgical care, and medication management. The monitoring indicators were among those frameworks of accred-

itation standards selected by Ministry of Health, Treatment and Education for accreditation and follow-up re-accreditation of the hospitals. All measures were driven from Joint Commission International (JCI) accreditation standards (19). They were translated and their validity and reliability were evaluated by Ministry of Health, Treatment and Education. Each checklist was filled out by an inspector. They were trained to properly use the measurement tools. Six inspectors carried out all assessments in the four hospitals. A supervisor supervised the inspectors during data collection to improve the quality of data collection.

Evaluated Indices

The selected output measures were extracted from section I of JCI accreditation standards, "Health Care Organization Management Standards". The summary of the covered indices included those related to admission of the patients to the hospital, continuity of care, discharge, referral, follow-up, transfer and trans-

portation of the patients, patients and families rights and education, on time, proper and safe assessment of patients, care delivery for patients, provision of high-risk services, food and nutrition therapy, pain management, end-of-life care, analgesic and surgical management, sedation, anesthesia and surgical care, and medication management, selection, storage, ordering, transcribing, preparing, dispensing, monitoring and administration.

Data Analysis

All collected data was coded and entered in SPSS 14 (SPSS Inc., Chicago, IL). All scales were transformed to percentage scale to enable easy comparison. The results of assessment of each index were compared among the four hospitals by test.

3. RESULTS

The first part of evaluation was the access of patients to care and continuity of care (ACC) which included three major indices as follow: "Patients are admitted to receive inpatient care or registered for outpatient services based on their identified health care needs and the organization's mission and resources" (ACC.1), "The organization designs and carries out processes to provide continuity of patient care services in the organization and coordination among health care practitioners" (ACC.2), and "There is a policy guiding the referral or discharge of patients" (ACC.3). The lowest and the highest prepared levels in all three indices were recorded at Behesht and Zahra hospitals, respectively. The corresponding values for ACC.1, ACC.2 and ACC.3 at Behesht and Zahra hospitals were 52% vs. 71%, 95 vs. 100%, and 50% vs. 62.5%, respectively. No difference was found among the four hospitals on the mean prepared levels of ACC (P=0.9). The second part of evaluation was the patient and family rights presented in Table 1.

Assessment of patients (AOP) were done by six indices as follow: "All patients cared for by the organization have their health care needs identified through an established assessment process" (AOP.1); "All patients are reassessed at intervals based on their condition and treatment to de-

PFR	Index	Hospitals				P value
		Shariati	Gharazi	Zahra	Beheshti	
1	The organization is responsible for providing processes that support patients' and families' rights during care."	53	44	44	56.5	
2	"The organization supports patients' and families' rights to participate in the care process"	41.5	54	46	37.5	
3	"The organization informs patients and families about its process to receive and to act on complaints, conflicts, and differences of opinion about patient care and the patient's right to participate in these processes"	100	100	100	100	
4	"Staff members are educated about their roles in identifying patients' values and beliefs and protecting patients' rights"	50	50	50	75	
5	"All patients are informed about their rights and responsibilities in a manner and language they can understand"	50	50	25	25	
6	"Patient informed consent is obtained through a process defined by the organization and carried out by trained staff in a language the patient can understand"	50	58	62.5	60	
7	"The organization informs patients and families about how to gain access to clinical research, clinical investigation, or clinical trials involving human subjects"	0	0	0	0	
8	"Informed consent is obtained before a patient participates in clinical research, clinical investigation, and clinical trials"	35	35	0	37.5	
9	"The organization has a committee or another way to oversee all research in the organization involving human subjects"	0	0	0	0	
10	"The organization informs patients and families about how to choose to donate organs and other tissues"	50	50	25	N/A	
11	"The organization provides oversight of the harvesting and transplantation of organs and tissues"	0	0	0	N/A	
	Mean	39	41	32	43.5	0.55

Table 1. The amounts of preparation of hospitals in patient and family rights (PFR) according to JCI standards.

termine their response to treatment and to plan for continued treatment or discharge" (AOP.2); "Qualified individuals conduct the assessments and reassessments" (AOP.3); "Physicians, nurses, and other individuals and services responsible for patient care collaborate to analyze and to integrate patient assessments" (AOP.4); "Laboratory services are available to meet patient needs, and all such services meet applicable local and national standards, laws, and regulations" (AOP.5). "Radiology and diagnostic imaging services are available to meet patient needs, and all such services meet applicable local and national standards, laws, and regulations" (AOP.6). Beheshti hospital showed the lowest mean preparation level (68%) and the worst preparation in AOP.1, AOP.5, and AOP.2

with 56, 67 and 75 percent, respectively; whereas Zahra hospital demonstrated the highest mean level of standards and the best scores in AOP.4, AOP.5, and AOP.2 with 75, 96 and 100 percent, respectively. There was no difference among the four hospitals on the mean level of AOP index (P=0.6).

Seven indices applied to evaluate care of patients (COP) were as follow: "Policies and procedures and applicable laws and regulations guide the uniform care of all patients" (COP.1), "There is a process to integrate and to coordinate the care provided to each patient" (COP.2), "Policies and procedures guide the care of high-risk patients and the provision of high-risk services" (COP.3), "A variety of food choices, appropriate for the patient's nutritional status and consistent with

his or her clinical care, is regularly available" (COP.4), "Patients at nutrition risk receive nutrition therapy" (COP.5), "Patients are supported in managing pain effectively" (COP.6), and "The organization addresses end-of-life care" (COP.7). The lowest levels of standards in COP.1 (25%), COP.3 (28%), COP.4 (25%) and COP.5 (50%) were seen at Shariati hospital whereas the lowest levels of standards in COP.2 (26%), COP.6 (50%) and COP.7 (0%) were observed at Beheshti hospital. The highest mean standard level of COP was recorded at Zahra hospital (61.5%). Again, there was no significant difference in mean COP levels among the four hospitals ($P=0.35$). Anesthesia and surgical care (ASC) preparation levels are summarized in Table 2.

Medication management and use (MMU) was evaluated by the following seven indices: "Medication use in the organization complies with applicable laws and regulations and is organized to meet patient needs" (MMU.1), "An appropriate selection of medications for prescribing or ordering is stocked or readily available" (MMU.2), "Medications are properly and safely stored" (MMU.3), "Prescribing, ordering, and transcribing are guided by policies and procedures" (MMU.4), "Medications are prepared and dispensed in a safe and clean environment" (MMU.5), "The organization identifies those qualified individuals permitted to administer medications" (MMU.6), and "Medication effects on patients are monitored" (MMU.7). Interestingly, Beheshti hospital earned the lowest scores on all indices but MMU.6. Its mean preparation level of MMU was 56% whereas the highest preparation level was recorded in Zahra hospital by 84%. The latter hospital received the highest scores on all indices but MMU.5. No significant difference was observed in mean levels of MMU among the four hospitals ($P=0.15$).

The following six indices were applied to evaluate patient and family education (PFE): "The organization provides education that supports patient and family participation in care decisions and care processes" (PFE.1), "Each patient's educational needs are assessed and recorded in

ASC	Index	Hospitals				P value
		Shariati	Gharazi	Zahra	Beheshti	
1	"Anesthesia services (including moderate and deep sedation) are available to meet patient needs, and all such services meet applicable local and national standards, laws, and regulations and professional standards"	75	100	100	75	0.8
2	"A qualified individual(s) is responsible for managing the anesthesia services (including moderate and deep sedation)"	100	100	100	100	
3	"Policies and procedures guide the care of patients undergoing moderate and deep sedation"	50	75	25	50	
4	"A qualified individual conducts a pre anesthesia assessment and pre induction assessment"	100	100	100	100	
5	"Each patient's anesthesia care is planned and documented in the patient's record"	100	100	100	87.5	
6	"Each patient's post anesthesia status is monitored and documented, and the patient is discharged from the recovery area by a qualified individual or by using established criteria"	100	100	100	100	
7	"Each patient's surgical care is planned and documented based on the results of the assessment"	70	90	90	65	
	Mean	85	95	88	82.5	

Table 2. The amounts of preparation of hospitals in anesthesia and surgical care (ASC) according to JCI accreditation standards.

his or her record" (PFE.2), "Education and training help meet patients' ongoing health needs" (PFE.3), "Patient and family education includes the following topics, related to the patient's care: the safe use of medications, the safe use of medical equipment, potential interactions between medications and food, nutritional guidance, pain management, and rehabilitation techniques" (PFE.4), "Education methods include the patient's and family's values and preferences and allow sufficient interaction among the patient, family, and staff for learning to occur" (PFE.5), and "Health professionals caring for the patient collaborate to provide education (PFE.6). Beheshti and Gharazi hospitals demonstrated the lowest and the highest mean preparation levels of PFE, 42% vs. 57%, respectively. Similarly, they revealed the lowest and the highest levels of preparation in PFE.3 (37.5% vs. 75%, respectively), PFE.4 (25% vs. 50%, respectively), and PFE.6 (25% vs. 60%, respectively). There was no difference among the four hospitals on the mean level of PFE index ($P=0.35$).

The mean levels of all patient-centered indices were as follow: 60%, 61%, 67% and 68.5% in Beheshti,

Shariati, Gharazi and Zahra hospitals, respectively. The difference among them was not significant. Overall, the mean levels of seven indices when all the four hospitals were considered together are summarized in Table 2.

4. DISCUSSION

Seven fields of patient-centered JCI accreditation standards were selected in the current study to evaluate and compare among the four hospitals. The study revealed that the overall patterns of patient and family education, assessment of patients, care of patients, anesthesia and surgical care, patient and family education, medication management and use, and patient and family education were not significantly different among the four hospitals although minor differences were recorded. Health resources, health care requirements and diversity of the presented health care services could explain part of the observed differences (20). Zahra and Gharazi are both general hospitals affiliated with Social Security Organization whereas Beheshti hospital is a teaching women's hospital. Shariati hospital is a teaching hospital affiliated with Social Security

Organization. Some of the minor differences were found in the following domains: educational methods including enough interactions towards effective learning, collaboration of health professionals in patient education, identification of patients' needs through an established assessment process, interval assessment of patients, collaboration of health care team towards integration of patients' assessments and availability of all laboratory services that are compatible with standards. Overall, none of the four evaluated hospitals was completely organized in all of the seven fields of patient-centered standards. This study was a pioneer in hospital accreditation in the country. We found only two studies published in Pubmed on health care accreditation carried out in Iran; one on medical universities and the other on laboratory quality (21, 22). Nothing has been published about the effects of such accreditation programs on progress of quality of health care services in our country. In other parts of the world, the evidence has not been very convincing that the process of accreditation advances the qualities of health care services. This is due to its complexity and multidimensionality (14, 15, 16, 17, 18). In a study in South Africa, the researchers evaluated the impact of accreditation on quality of care in hospital and found out that the teamwork and participations of nurses did not improve after accreditation (23). Another investigation demonstrated the least changes in medical staff subsequent to accreditation (24). Further studies are needed to assess the short and long term impacts of such accreditation programs on improvement of quality of health care services in Iran.

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