

Original Article

Comparison of emergency department services of two hospitals based on accreditation standards

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Abstract

Introduction: Presenting services with high quality in emergency department has its significant due to its specific conditions. Prerequisite of presenting effective health services is to evaluate and compare them with predetermined standards. According to the importance of hospital's emergency in increasing patients' satisfaction and improving clinical services' quality, this survey has been done with aim of analysis the emergency department of Noor and Ali Asghar hospitals according to new format of accreditation standards.

Materials and Methods: This survey is a descriptive research which has been done in Noor and Ali Asghar Hospital, in Isfahan and in 2011. The research tool for gathering information is a checklist which has been prepared from the emergency standards of health, therapy, and medical education. Data has been gathered from related documents and corporation of internal, poisoning, and men and women psychiatric emergencies. In order to data analyzing, Statistical Package for Social Sciences (SPSS) and Excel software have been used and the state of hospital's emergencies compared with each other. **Findings:** The finding of the present research shows that in management and organizing part with maximum grade of 34, the maximum point belongs to internal emergency department (26 point); in human power management with maximum point of 244, the maximum point belongs to internal emergency department (145 point); in equipment and supplies with maximum point of 78, the maximum point belongs to poisoning emergency department (66 point); in security, quality improvement, and data gathering with maximum point of 390, belongs to poisoning emergency department (252 point) and internal emergency department (250 point), and women and men psychiatric emergency department (242 point) achieved the most highest scores. **Discussion and Conclusion:** The results show that because of the ease of poisoning emergency availability to paraclinic's services, the highest point is related to this part. The cause of the significance difference in management and manpower management is related to the lack of policy and method of working in emergency departments. So forming the meetings and holding educational courses with the processes' owners are very useful in policy and methods making.

Key words: Accreditation, emergency department, hospital, standard

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Introduction

Nowadays health supervision organizations are confronting with important challenges because of competitive needs for service presentation. An environment in which economic, political, and legal motivations of the health supervision presenters confront with expenditure control and quality maintenance.^[1-3] So, most of the health supervision managers and health politicians suppose standardization, accreditation, and assessment of the health services supervision centers as an inevitable matter according to quality improvement.^[4] A wave of external assessment orders has affected health-therapeutic service

supervision in last 2 decades. Government, service consumers, medical trade associations, insurance company managers, and other stakeholders are trying to increase health-therapeutic services supervision quality according to the response received from the the society by accreditation of activities^[5-7] Accreditation is a process in which a group or an organization gives famousness, credit, and popular acceptance to a hospital by evaluation and because of its ability of doing specific services in a standard way. Accreditation by people who are experienced and experts has been done via organizational process' quality evaluation and its proceeds conformity according to written and ratified standards. Health-therapeutic centers or hospitals have been evaluated when they had been demanded from acceleration organization in a voluntary but official way. Then an acceleration group have been evaluated that center or hospital by using related standards. After data analyzing, their conformity degree with standards has been declared to that center or hospital.^[6,7]

Hospital emergencies are mentioned as a health and therapeutic system problem in most countries. Emergency is the heart of a therapeutic system and its improvement will cause to other therapeutic wards recuperation.^[8] Medical and clinical knowledge indebted their improvement and promotion in emergency patients therapy to appropriate space and equipment, speedy action, and manpower's skill of these wards.^[9] Hospitals are the most important health-therapeutic supervision parts that hold preventive services, premature identification, on time cure, and receivers' rehabilitation.^[10] Emergency ward as a hospital entrance accept about 30 million patients yearly all over the world. This ward has been introduced as the heart of health and therapeutic system and its status and organization improvement is of the most important priorities of the health ministry.^[11] The emergency of the hospital is both the receiver of critical patients from the prehospital emergency with other therapeutic centers and also has the function of patients' vital signs stabilization in order to transfer them into confined to bed and special wards and operating room of the same hospital or other hospitals.^[12] In order to be confidence of emergency services effectiveness, the revenue of the ward should be evaluated. Nowadays various tools and methods have been used for revenue measurement in organizations and if the occurrence of these measurements in an appropriate and continuous way will cause to executive organizations' promotion and responsiveness, public confidence to organizations' revenue, and governmental efficacy and effectiveness.^[13] One of the manifest and helpful characteristics of the revenue's evaluation is using of acceptable and standard resources.^[14] So, according to this matter, the health correction modification will not be possible without health and therapeutic services centers evaluation and improvement.^[15] As the hospital's emergency is the heart of therapeutic system and also the main pillar of the hospitals, so the evaluation of this department is very important in order to demonstrate the expected performance and help the modification and improvement of the hospital.

Expert and efficient health-therapeutic service presentation depends on and indigent to evaluation. Evaluation in any kind has an essential pre-necessity, which is the existence of standard. The process of evaluation could not come true without having standard. In fact, quality as an essence has been defined the standard defining effectiveness. If the standard has been defined more appropriate and subtle, the conclusion of the evaluation has been more reliable.^[16]

No doubt that emergency and medical urgency ward have been mentioned as one of the most delicate and sensible departments of a hospital because millions of people's lives were risked by various accidents and an appropriate care can escape their lives.^[17]

The emergency ward has special importance in various aspects of therapeutic, economic, sentimental, hygienic, social, and legal. So, attending to this department is important in order to the present status improvement in such centers.^[18]

The society needs an appropriate service from emergency wards, attention to patients, and improvement of supervision in such departments. So, the scientific leadership and management is of the essential requirements in the emergency ward and the correct leadership can provide the accessibility to the aims of such therapeutic units more and more.^[19,20]

Also standards present the appropriate level of the revenue. Unfortunately presenting health services out of standards will have a direct impression on the society's health and hygiene.

According to the importance of the emergency unit in hospitals and since this unit is the first part that will be evaluated according to the hospitals' accreditation new format, the survey of the dimensions relating to accreditation standards can be a positive step in self-evaluation and identification of strength, and improvable points in the emergency ward. This survey has been occurred with the aim of analysis emergency department of Noor and Ali Asghar hospitals according to the new format of health, remedy, and medical education ministry accreditation standards.

Materials and Methods

This research has been done in Noor and Ali Asghar hospitals in 2012. This is an operational research by the aim and a kind of descriptive-sectional research by the essence. The research population consists of internal emergency, poisoning emergency, and men and women psychiatric emergencies. The statistical society consists of hospital management, administrators and supervisors, the manager of the hospitals' emergencies (internal, poisoning, and men and women psychiatric emergencies) and clear sighted persons of the hospital during the research performance period and according to accreditation standards. Census has been used according to the research goals.

For data gathering at the first step, all of the related documents and then checklists completed by the researchers and with the association of administrators and personnel of internal, poisoning, and men and women psychiatric emergencies were collected. These four emergencies were compared with each other in the second step. Data gathering tool was a checklist consisting of accreditation standards in Iran (prepared by health, hygiene and medical education ministry, care matters supervision and accreditation, the evaluation organization of therapeutic centers, by Dr Hassan Emami Razavi *et al.*). This checklist has been prepared in four parts, that is, management and organizing; human resource empowering; potentialities and necessities; and security, quality improvement, and data gathering. According to the standard observance balance, scores between 0 and 2 has been allocated, so 0 has been allocated to no observance, 1 to those approximately observed, and 2 to thoroughly observed. The checklists completed through directly refer to the emergency, direct observation of documents and offices and interview with hospital's manager, administrators and supervisors. Then each of the emergencies compared with each other by imagining items in excellent, good, on the expected level, poor, and unacceptable category. On the other hand, maximum of distinction were divided in five items. The research population consisted of personnel from emergency, physical environment, equipment, offices, and document department. The research sample consists of hospital's manager, emergency department staff and clear sighted persons. Each of the hospital's emergencies status has been described by using Statistical Package for Social Sciences (SPSS) software, Excel, preparing related tables, and comparing the results.

Results

After the survey of four emergency centers, below findings have been occurred: If the whole checklists' questions archive yes for answer (score no. 2); the maximum score for emergency in the management and organization part will be 34; manpower management will be 244; equipment and supplies will be 78; security, quality improvement, and data gathering will be 34; and the total score will be 398. According to the acquired findings, poisoning emergency acquired the highest score with 252 and men and women psychiatric with 242 acquired the lowest score. The highest score in the management and organization part is related to the internal emergency with the distinction of 26 and the lowest score is related to the poisoning emergency with the distinction of 24. The highest score in the manpower management part is devoted to the internal emergency with the score of 145 and the other three emergencies with the score of 142 are equaled. The highest score in the equipment and supplies part is devoted to the poisoning emergency with the score of 66 and the lowest score is related to the men and women psychiatric emergencies with 55. All of the emergencies in the security, quality improvement, and data gathering part achieved the distinction of 20 [Table 1].

The scores divided into five levels consisting of excellent, good, in the expected limit, poor, and unacceptable. All of the emergencies in the management and organizing part were in the good level. All of the emergencies in the manpower management part were in the expected level. All of the emergencies in the equipment and supplies part were in the excellent level, because of the ease of the poisoning emergency accessibility to the excellence level of paraclinic services and the other emergencies were in good level. All of the emergencies by the point of security, quality improvement, and data gathering were in the expected level.

Discussion

According to the comparison between Noor and Ali Asghar Hospitals' emergencies with accreditation standards [Tables 1 and 2]:

- Management and organizing: In this part, at least 70% of the emergency standard has been observed and the causes of score deficit are as below:
 1. Personnel unawareness from the hospital's aims and prophetic
 2. Supervisor and the shift responsible nurse without Registered nurse (Rn) certification.
- Manpower management: In this part, at least 60% of the emergency standard has been observed. This part has the lowest accreditation in standard score in the comparison with other three parts. The main cause of this matter is the lack of policy and method in emergencies. The other reasons are as below:
 1. Lack of perfectness in the ward's personnel documents
 2. Lack of perfectness explanation directory at the moment of arrival
 3. Lack of documents existence about the primary/periodical personnel exam
 4. Lack of security and vocational and environmental health.
- Equipment and supplies: In this part, at least 70% of

Table 1: Comparing hospitals' part in emergencies with standards

Evaluation part/hospital part	Standard	Emergency (%)			
		Internal	Poisoning	Women psychiatric	Men psychiatric
Management and organization	34	26 (76)	24 (70)	25 (73)	25 (73)
Manpower management	244	145 (59)	142 (58)	142 (58)	142 (58)
Equipment and supplies	78	59 (75)	66 (84)	55 (70)	55 (70)
Security, quality improvement, and data gathering	34	20 (58)	20 (58)	20 (58)	20 (58)
Total score	390	250 (64)	252 (46.6)	242 (62)	242 (62)

Table 2: Status of hospitals' part based on revenue levels

Evaluation part/hospital part	Excellent	Good	In the expected level	Poor	Unacceptable
Management and organization	27.2-34	20.4-27.2	13.6-20.4	6.8-13.6	0-6.8
	-	All emergencies	-	-	-
Manpower management	195.2-244	146.4-195.2	97.6-146.4	48.8-97.6	0-48.8
	-	-	All emergencies	-	-
Equipment and supplies	62.4-78	46.8-62.4	31.2-46.8	15.6-31.2	0-15.6
	Poisoning emergency	Other emergencies	-	-	-
Security, quality improvement, and data gathering	27.2-34	20.4-27.2	13.6-20.4	6.8-13.6	0-6.8
	-	-	All emergencies	-	-

the emergency standard has been observed. Internal emergency has achieved the lowest score because of the lack of appropriate accessibility to paraclinic units. The other causes are as below:

1. Lack of nurse compulsory recalling
 2. Lack of uninterrupted power supply (UPS) points
 3. Lack of ward's appropriate directory.
- Security, quality improvement, and data gathering: In this part all of the emergencies have been observed; 58% of the emergency standard. The reasons for lack of achieving the whole score are as below:
 1. Lack of custody handbell system
 2. Lack of appropriate, measurable, realistically, and scheduled indicators indexes
 3. Lack of discipline and continuousness in the performance evaluation of the quality improvement program
 4. Lack of internal appropriate analysis in the examination results.

Comparison of this research with the similar research which has been done in Shahid Beheshti University of Medical Sciences shows that in contravention of mentioned research, Noor and Ali Asghar hospitals are in good status in the equipment and supplies part.

Comparison of this research with Bahadori *et al.*^[20] shows these emergencies' management and organizing and also their equipment and supplies are in an approximately appropriate status. Also, the manpower indexes of these two researches are in a medium level.

Comparison of this research with Friman *et al.*^[21] shows that the lowest acquired score in the present study is related to manpower management and also security, quality improvement, and data gathering; although, the research of Friman's lowest score was related to the physical environment.

Conclusion

According to the evaluation of four emergencies consisting of internal, poisoning, and women and men psychiatric emergencies; their acquired scores are approximately the same as each other. This hospital is one of the ancient hospitals of Isfahan, so its score deficit is because of its

inappropriate structure. This hospital can surmount the problems by using experienced persons in spite of its inappropriate structure. Based on the accomplished comparatives, the main cause of this imperfectness is related to the hospitals' ancient structure. Lack of collected documents in policy and method of working, explanation directory at the moment of arrival and security, and vocational and environmental health directory are of the other important reasons of decreasing the scores.

According to the acquired scores in the Table 1, the lowest acquired score for emergencies is related to the security, quality improvement, and data gathering item and the highest acquired scores is related to the equipment and supplies.

Suggestions

Only the emergencies' accreditation standards checklist has been surveyed in this research and it is not sufficient for a complete and comprehensive analysis of the whole ward's activities. So complementary studies has been needed in order to add services' quality measurement, patients, patients' attendants, and even personnel's satisfactory amount to accreditation standards for achieving a complete evaluation of the present status.

Emergencies of this research have been studied by the defined standards in Iran, so this evaluation is not comprehensive and generalizable to developed countries. Evaluating the wards of hospitals with defined universal standards has been proposed.

The emergency is one of the most important parts of hospitals and should be evaluated by various aspects. One of the most effective characteristics in patients and their attendants' satisfaction and also in presentation of high quality services is the structural characteristics of the ward, so comparing the hospital's emergency with standards by the structural point is advised.

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References

1. Joint Commission International. Quality assurance and accreditation. QA Brief 1997;6:17-9.
2. Prybutok VR, Spink A. Transforming a health care information management system. Top Health Inf Manage 1997;18:1-11.
3. Ritonja SA, Hocever Z. Redesign of healthcare processes classification to improve the processes of gathering information and data processing on professional and organizational quality in healthcare. Int J Health Care Qual Assur Inc Leadersh Health Serv 2001;14:254-9.
4. Rooney A. Licensure, accreditation and certification: Approaches to health services quality. Bethesda: Quality Assurance Project; 1999.
5. Scrivens E. Taxonomy of accreditation systems. J Soc Policy Adm 1966;20:114-24.
6. Scrivens E. International trends in accreditation. Int J Health Plann Manage 1995;10:165-81.
7. Raeisi Yarmohamadiyan 'Asefzade'. Comparative study of the validity of information models in Europe and America. Center for Health Information 2008.
8. Ministry of Health and Medical Education, Evaluation Office, Emergency Management Association rules and standards, management strategies for treatment and training of emergency. Iran 1379. page 1 [In Persian].
9. Taylor DM, Cameron PA. Emergency department discharge instructions: A wide variation in practice across Australasia. J Accid Emerg Med 2000;17:192-5.
10. Review and assessment of hospital performance indicators in bed occupancy, average stay and bed occupancy rotation, Sayed Mohammad Amin Talib Shahrestani, 1379 [In Persian].
11. Emergency department management – principles and applications. Richard sulluzo, thom A. Mayer *et al.*, 1997, USA, Mosby.
12. Educational processes and activities of the emergency department of medical sciences, tehran, mohammad rahmani, 1385 [In Persian].
13. Why and how to evaluate performance in repairs and restoration organizations, individual Ehsan Sattari [In Persian].
14. Amrun 1 and others. Joint Commission International accreditation standards of the laboratory in a military hospital. University of Medical Sciences of the rest. Summer; 1388 [In Persian].
15. Mohagheghi MA. Manifestation of transcendent values in the hospital evaluation system to monitor the health of the hospitals. Tehran: Ministry of Health and Medical Education; 1376 [In Persian].
16. Richard Robinson, Robin acetate. Diagnosis and treatment of medical emergencies. Arefi mahir translation. Tehran: Jzyl; 1370 [In Persian].
17. Rahimi B. Evaluation process, structure and function of emergency departments and hospitals in Tabriz, Urmia. Congress abstracts nursing and midwifery students across the country, Mashhad University of Medical Sciences. January; 1380 [In Persian].
18. Abdyazdan GH. Nurses' opinions about barriers of personnel providing services in emergency departments. Proceedings of National Seminar on Management of Nursing and Midwifery, Islamic Azad University services. Persian date Khordad; 1375 [In Persian].
19. Swans Burg RC, Swans Burg RL. Management and leadership for nurse manager. New York City: McGraw-Hill; 2002.
20. Bahadori M, and others. Structure, process and other activities of the department's Emergency Medical University in 2008.
21. Friman M. Quality of emergency care. AMJ, EMerg Med 1997;15:208-9.

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