



Applying the EFQM Model for Evaluating the Performance: A Case Study in a Public Hospital

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ABSTRACT

Background: Evaluation is a key process to improve the organization. The maintenance and improvement of the health is the priority of the people of each country these days. Ensuring the provision of appropriate services requires the evaluation of the health system performance. European Foundation for Quality Management (EFQM) model is a self-assessment model and allocates more for health and care organizations and almost evaluates an organization in all structural and functional aspects. This study was conducted with to the aim of evaluating the performance of a public hospital in Tabriz according to the model of Europe Foundation for Quality Management.

Methods: This study was a cross - sectional study in 2015 in a public hospital in Tabriz. Data collection tools had been standard questionnaire of Europe Foundation Model for Quality Management. Data was gathered through standard and prestigious questionnaire of Europe Foundation Model for Quality Management which consisted of 90 questions, same in the field of nine criteria. After visiting the hospital by experts, meeting was hold among them and proceeded to consult and complete the questionnaire. The data was reported by descriptive tests and software of EXCELL was used for data analysis.

Results: The mean score of performance evaluation in terms of leadership was 73.6 points out of 100 points, in terms of policy and strategy, 46.8 points out of 80, in terms of human resources 54.1 out of 90 points, in terms of strategies and policy 41.9 points out of total 90 points, in terms of processes 59.8 points out of 140 points, 66 points out of 200 in terms of customer results, in terms of human resources results 23.76 points out of a total of 90 points, 40.2 points out of a total of 60 points, in terms of society results and in terms of key performance the result was 71.35 points out of 150 points . The average total score of 477 points out of 1000 points was performance evaluation. The results of the report are 47.75%. Finally, the results showed that the hospital had relatively appropriate status.

Conclusion: The findings showed the need for more attention to human resources and customer results. Enhancing employee's satisfaction factors to increase their satisfaction and efficiency, identifying foreign customers, categorizing and measuring different needs of patients in order to response and upgrade the system of addressing the complaints through the reform the processes are those cases that are proposed to improve the organization and increase compliance with organizational excellence model .

Keywords: Performance Evaluation, Foundation for Quality Management, EFQM, Public Hospital

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Introduction

The important role of the health sector in the promotion of social, cultural and economic indexes of countries, have caused that organizations involved in this matter by a review in health management practices, be determined more and more in implementation of the most effective ways to deployment of available limited resources and provide health care of people of society (1).

According to article 88 of the Fourth Development Plan, Ministry of Health and Medical Education has been tasked to refine the structure and processes of economic management and identifying indicators to improve the quality in order to improve services of healthcare quality and excellence of performance of clinical services, Increase efficiency, and optimal use of healthcare facilities (2).

Complexity of current health care organizations, increasing healthcare costs, specialization, focus on the customer and the importance of efficiency and effectiveness of services, are including factors that have encouraged healthcare organizations to development of performance evaluation and development of excellence organizational patterns (3).

On the other hand, because of the nature and extent of the services to be offered in the health sector, even a small mistake of any kind can be irreparable. Therefore, performance evaluation and providing flawless services and being in accordance with the performance standards are necessary in this sector (4).

Evaluation is a key process for improvement of organization and EFQM model is a self-assessment model and more specifically is for health care organizations and almost evaluates an organization in all structural and functional aspects. Evaluation is considered an integral part of every activity and administrative activities, because the improvement of administrative activities is followed that it is main aim by using measurable information and evaluation pays attention to proportional effectiveness and outcome and considered productivity without need to resources in crescent.

Evaluation is inevitable for health and treatment cares. When we face with limited resources knowing whether a program or function is useful or not, is crucial. Even if we access to sufficient resources we should also be aware which programs under implementation are more advantageous, Safer and more efficient in terms of time and can be implemented in less time (6). Today, the maintenance and improvement of the health of the people are considered as each country's development priorities, and health care professionals are always trying to take advantage of their available resources, to provide the best and most quality health care services to population (7).

Ensure the provision of such services requires the assessment of the performance of health (6, 7). Performance evaluation system is common in health care organizations in developing countries, including Iran, especially hospitals have been unable to satisfy their stakeholder satisfaction and in areas such as improvement of the performance, improvement of the quality, satisfaction of providers and recipients of healthcare services, improvement of the information management system are encountered with failure (8). Organizational Excellence models or Business Excellence are used as a powerful tool to measure the deployment rate of systems in various organizations.

By using these models, while an organization can evaluate its success rate in implementation programs of improvement at different times, it can also compare its performance with other organizations, especially the best ones.

These models learn the excellence of organizations is not a theoretical conception, but is also to obtain and provide tangible and visible results that are evidence-based and have stability and durability (9). A time organization can achieve excellence that can focus its attention to all aspects. One of the first steps to give a comprehensive view on these models was removed in 1983 and in Canada, with Canada Excellence Quality Award.

Then in 1987, after several years of continuous work, business model of Malcolm Baldrige National Quality Award was introduced in America that



actually was covering all parts of a business, taking into account the interests of all stakeholders (7, 9). Following this model, the model of Europe Quality Award was presented by the European Foundation for Management Quality in 1991 in many European and non-European countries that follow it (9). Use of EFQM model is high default to provide comprehensive quality management in the hospital. Because this model is the most comprehensive model and it contains professional quality assessment model. As other models such as the quality certificate JCIA, ISO and KTQ have been placed on its base (10). European organizations can demand to assess their organizations annually from the Europe Foundation for Quality Management (EFQM).

If the organization does not meet the minimum expectations of EFQM and finally the gain evaluation score among applicants will be introduced as the first place winner and the prize will be awarded to it (11). Excellence Organizational Model of European Foundation for Quality Management has been on nine criteria (6). Five criteria of this model are about the empowerment and represent the constituents of an organization and how they interact with each other and four other criteria have formed the results of organizational performance and introduce results of enablers (6).

Using the model of excellence in the health sector was caused to engage various professionals in the analysis and agreement on how to change in health care complex organizations and has the development of managerial skills in the field of performance evaluation (12, 13).

Therefore, this study was designed and implemented with the aim of evaluating the performance of a public hospital in the city of Tabriz according to the Europe Foundation for Quality Management model, in 2015. Therefore, it is expected to promote employee's satisfaction factor for increasing their satisfaction and efficiency, identifying foreign customers, categorizing and measuring different needs of patients in order to response appropriately and promote the addressing complaint system through

the reform process to improve the organization and increase compliance with the excellence model of organization by conducting this study.

Material and Methods

This study was conducted in cross sectional - descriptive way in 2015 in a public hospital of Tabriz.

The reason to select this hospital was being public hospital, many patients visit the hospital and it is as one of the top pole hospitals in the west north of country.

The standard questionnaire of Europe Foundation model for quality management was used. This questionnaire contains 9 criteria and 50 sub-criteria. This questionnaire contains 90 questions with same rhythm and all the questions have the same effect on the rate of hospital. This feature of the questionnaire means to have 90 questions that are with same rhythm, and help managers to easily identify that their efforts will be most effective in each field of the questions because the field of each question that is selected for improvement has the same effect in improving the overall and obtained score for the organization.

1. Leadership: excellent organizations have leaders who portrayed the future and make it happen (9).

2. Policy and strategy: the excellent organization performs its mission and vision through creating and developing a strategy focused on the interests of all stakeholders. And by taking into account the market and sector in which it operates (10).

3. Staff: excellent organizations value their employees, develop their abilities and to promote justice and equality (8).

4.4. Partnerships and Resources: excellent organizations plan and manage external partnerships, internal suppliers and resources to support effective strategies, policies and operations of processes (9).

5. The processes: It contains how to manage and organizational development in design the activities and processes in order to ensure clients and stakeholders them (11).



6. Customer Results: It means that organizations obtain what things in relation to their foreign clients (12).

7. Employees' Results: They develop a set of performance indicators and related outcomes to determine the successful deployment of backup strategies and policies on the needs and expectations of their employees and agree on them (8).

8. Society Results: Excellent organizations based on the needs and expectations of external stakeholders, create a set of functional indexes and relevant outcomes to determine the successful rate in deployment strategies regarding the community, the environment and backup policies and agreed to them (9).

9. Key Performance Results: excellent organizations comprehensively measure outstanding results related to the main components of policy and strategy and achieve them (13).

Leadership criterion is awarded 100 points out of 1000 points, policy and strategy 80 points out of 1000, the staff 90 points out of 1000 Points, partnerships and resources 90 points out of 1000 points, processes 140 points out of 1000 points, the results of clients 200 points out of 1,000 points, the results of human resources (staff) 90 points out of 1000 points, the results of population 60 out of 1000 points and key performance results 150 points out of 1000 points. Its reliability and validity have been confirmed in previous studies. Reliability was obtained by using Cronbach's alpha coefficient 0.97 and its validity according to experts (13).

First, by understanding the process of evaluating in the model (EFQM) and its approaches, it was acted to form the assessment team includes experts (chief hospital, manager, matron, financial affair manager and head of wards) in this field. The questionnaire approach was selected because the current organizational culture of hospital and being at the beginning of the road and the hospital's low efforts for quality. After a visit of experts from the hospital, a meeting was hold among them and proceeds to consultation and completion of the questionnaire.

The methods and techniques of descriptive statistics have been used to analyze the data. Each question in terms of the number, frequency, and percentage of frequency has been investigated in the descriptive statistics section. The data was reported by descriptive tests and software of EXCELL was used for data analysis.

Furthermore, all ethical issues are based on the Helsinki Declaration.

Results

Average score of studied hospital performance evaluation, in terms of leadership, was 73.6 points out of 100 points, in terms of policy and strategy, 46.8 points out of 80, in terms of human resources (staff) 54.1 out of 90, in terms of partnerships and sources 41.9 points out of a total of 90 points, in terms of processes 59.8 points out of 140 points, 66 points out of 200 in terms of customer results, in terms of the results of human resources (staff) 23.76 points out of a total of 90 points, in terms of society results 40.2 points out of 60 points and key performance results 71.35 points out of a total of 150 points.

The average of total score of performance evaluation was 477 points out of 1000 points (47.75% of 100%). The results showed that the highest score of the various aspects is related to leadership dimension (73.6) and key performance results (71.35) in the studied hospitals, and the lowest scores were related to personnel's results (23.76), population results (40.2) and partnerships and resources (41.9). Criteria of policy and strategy and staff, respectively, with 61.1% and 60% have the highest percentage distance until desired situation and leadership criteria and employees' results with 26.4% and 26%, respectively, have the lowest percentage distance to have their desired state.

As well as among dimensions of the results, the highest obtained score is related to key performance results criteria (71.35) and the lowest score is related to criteria of results of employees (23.76) and also the greatest distance to desired situation is related to the dimension of customer results (134)



and the lowest distance is related to population results (19.8) of 4 dimensions of results. Also the results of the above table indicate that the criteria of nine items in the studied hospital compared with the

criteria of Organizational Excellence Model (EFQM), with a total of 477 points out of 1000 points, has relatively good situation and almost has not much distance with ideal situation.

Table 1. Information (score, Percentage, and Distance to Desirable Status) based on the Nine Criteria of the EFQM Model

| Creteria | Achieved Score | Achieved Score (%) | Distance To Optimal | Distance To Optimal (%) |
|--------------------------|----------------|--------------------|---------------------|-------------------------|
| Leadership | 73.6 | 7% | 26.4% | 26.4% |
| Policy and strategy | 46.8 | 5% | 31.2% | 61.1% |
| Staff | 54.1 | 5.5% | 45.9% | 60% |
| partnerships and sources | 41.9% | 4% | 48.1% | 55.5% |
| Processes | 59.8 | 6% | 80.2 | 42.6% |
| customer results | 66 | 6.25% | 134 | 33% |
| results of employees | 23.76 | 3% | 66.24 | 26% |
| dimensions of results | 40.2 | 4% | 19.8 | 33.5% |
| Total | 71.35 | 7% | 28.65 | 28.65% |
| | 477 | 47.75% | 523 | 52.3% |

Discussion

Since the ultimate goal of performance evaluation based on organization excellence model is to provide an opportunity for organization so that they can identify their actual situation, take steps to resolve the deficiencies and strengthen their strengths, move toward excellence and improve their situation, and on the other hand, to achieve this matter is in the shadow of honesty and accuracy in assessment and self-assessment ,so it is necessary to provide appropriate and necessary to do culture mandate for such principle assessment and self-assessment in organizations.

Such fundamental and correct assessments and self-assessments are necessary to be provided. And perspective of inspection and rating in these kinds of assessments needs to modify and these models need to be used to improve the quality and improvement of organizations not as a method for inspection and reprimand the employees. The findings of this study could determine weaknesses and strengths and had guidance for decision-making and management policy making. The findings showed the need for more attention to the results of human resources (employees) and customer's results.

Sajadi and et al. (14), in a study entitled self-assessment of the performance of training-care hospitals of Isfahan University of Medical Sciences, counted the most important criterion of need to improve as criteria of employee's result that the results were consistent with the present research.

Maleki and et al. (2), found in a study that in 2 hospitals of 15 Khordad and Alborz related to organization in 4 criteria of results (customer, employees, society and key performance) conducted a similar research that criteria of key results of performance had (more points and the shortest distance to the utility), and the criteria of results of the employees had (the lowest score and the highest distance to utility) that the criteria of results of employees were consistent with this study but did not match to the key performance results criteria which may be it is due to be new the building of the hospital . That the worst results did not match with present research, but the in weakest criteria (criteria of employee's results), research results were consistent with the 15 Khordad Hospital.

This study also did not match with results of research in hospital Nabitz Amsterdam, The Netherlands (15), in the worst and the weakest



criteria, which it is because of the culture of different societies and the lack of developed policies and strategies for hospital's sections in quality management system. Improve the quality in the form of organizational excellence model of Europe started from performing annual assessments based on the model and implementation the improvement projects and continues with a commitment certificate to quality and eventually receive the National Quality Award. For example, in a study by Nebitz, a drug rehabilitation center in the Netherlands in 1944, achieved average score of 33.8% and was able to reach its average scores to 58.2% after several years of implementation the improvement projects in 2004 (15).

Kallhor and colleagues in a study entitled Shahid Rajaei hospital performance evaluation based on the Excellence Organization model of EFQM found that, distance from hospital with favorable conditions in terms of leadership, policy and strategy, employees, partnerships and resources and processes, respectively is (64.92, 52.83, 59.31, 49.47, 89.48) that but the processes in other dimensions are consistent with this study and the reason of difference in dimension of processes can be the absence of some of the processes in the studied hospital because of being newly established the hospital or expertise of hospital that Rajai hospital of hospital of trauma center and our studied hospital, was a public hospital (16).

The results of study indicate that hospital by obtaining the score near to 50% does not have much distance with global standards and Ministry of Health and can take basic steps in order to improve the available situation by implementation of plans and projects. The findings also showed the need to pay more attention to results of human resources and results of customers. One of the limitations of this study was the lack of

cooperation of the studied group to complete the study questionnaire. In order to overcome this limitation, gifts were given from researcher to participants.

Conclusion

Improving satisfaction factors of employees in order to enhance satisfaction and their performance, identifying foreign customers, categorizing and measuring the different needs of patients for proper accountability and system upgrade, addressing to the complaint through the reform the process are of the cases that are proposed in order to improve the organization and increase compliance to organizational excellence model. Also according to the prove of EFQM model capacity to improve the quality of health services, it is recommended that Health Minister encourages hospitals to use the model during the time by using the financial stimulus that the distance of quality of hospital services with international standards reduces by design and causes to present of country in regional and global markets of health.

Conflicts of interest

This study does not have any conflict of interests.

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Authors' contributions

Asadi SA, sokhanvar M and Hosseini Bargzan S designed research; Asadi SA, Hosseini Bargzan S. wrote the paper. Asadi SA. had primary responsibility for final content All authors read and approved the final manuscript.

References

- 1) Barati A, Maleki M, Golestani M, Imani A. Evaluation of the Performance Management

System of the Employees of Amiralmomenin (PBUH) Hospital of Semnan making use of the



- Balanced Score Card 2005-2006. *Journal of Health Administration*. 2006; 9(25): 47-54. . [In Persian]
- 2) Maleki MR, Izadi A. A comparative study on results of two hospitals in Tehran based on the Organizational Excellence Model. 2008; 11(2): 63-8. [In Persian]
 - 3) Farzandipoor M, Asefzadeh S, Rabeei R. Assessment of consideration on the importance of Medical Records Department standards of Kashan Hospitals, 2004. *Feyz Journals of Kashan University of Medical Sciences*. 2006; 10(3): 28-33. [In Persian]
 - 4) Khoubati K, Themistocleous M, Irani Z. Conceptual model for the adoption of enterprise application integration in healthcare organizations. *AMCIS 2003 Proceedings*. 2003: 109.
 - 5) Porter ME. *Competitive strategy. Measuring Business Excellence* 1997; 1(2): 12-7.
 - 6) Calvo-Mora, Arturo, Antonio Leal, and José L. Roldán. "Relationships between the EFQM model criteria: a study in Spanish universities." *Total quality management & business excellence* 16.6 (2005): 741-770.
 - 7) Farzianpour F, Namati A, Raeisi AR, Torabi M, Rahmani K, Manafi F, et al. Implementation of Hazard Analysis and Critical Control Points Requirements in Nutrition Departments of Selected Hospitals in Iran. *American Journal of Agricultural and Biological Sciences*. 2014; 9(2): 218-25.
 - 8) Haji Foghaha M, Keshavarz T. The rate of midwives' awareness of working at midwifery offices, hospitals and clinics in Shiraz from Islamic Punishment Laws related to medical practitioners in 2007. *IJFM*. 2008; 14(1):18-21.
 - 9) Andersen HV, Lawrie G, Shulver M. The Balanced Scorecard vs. the EFQM Business Excellence Model—which is the better strategic management tool. *2GC Active management*. 2000; 3(1): 1-15.
 - 10) Groene O, Garcia-Barbero M. *Health promotion in hospitals: evidence and quality management: WHO Regional Office for Europe Copenhagen*; 2005.
 - 11) Elmas M. *The Online Journal of Quality in Higher Education: Doctoral dissertation, Sakarya University, Turkey*. 2017; 4(1): 1-23.
 - 12) Tabibi S, Maleki M. Performance evaluation of Ayatollah kashani hospital based on Baldrige Organizational Excellence Model. *Journal of Medical Council of Islamic Republic of IRAN*. 2009; 27(1): 23-30.
 - 13) Sarir M, Zandinezhad F. The effect of education on infection control measures in Shiraz Dental Offices (2002-2004). *Journal of Dentistry, Shiraz University of Medical Sciences*. 2006; 6(3, 4): 17-25.
 - 14) Sajadi H, Hariri M, Karimi S, Baratpour S. Performance self assessment by the excellence model in different hospitals of Isfahan university of medical sciences and healthcare services (2006). 2008; 18(2): 227-231.
 - 15) Nabitz U, Schramade M, Schippers G. Evaluating treatment process redesign by applying the EFQM Excellence Model. *International Journal for Quality in Health Care* 2006; 18(5): 336-45.
 - 16) Vali Ghazvini S, Shah Bahrami E, Nazari Y, Moradi F, Kalhor R. Performance evaluation of Rajaei hospital based on «EFQM» organizational excellence model. *Journal of Payavard Salamat* 2012; 6(1): 70-8. . [In Persian]