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# Identifying and prioritizing challenges related to promoting the health system performance assessment in Iran

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## Abstract:

**BACKGROUND AND OBJECTIVES:** Because the performance assessment of the health system is used as the basis for decision-making and demonstrates progress or failure in achieving the goals of the health system, promoting the health system performance assessment can play a major role in improving and enhancing the health system. Therefore, the main aim of the study was to identify and prioritize the challenges of promoting the health system performance assessment.

**MATERIALS AND METHODS:** There were two approaches in both qualitative and cross-sectional studies. At first, using semi-structured interviews with 52 performance appraisers, data related to the challenges of promoting the health system performance assessment were collected and thematically analyzed. Then, in cross-sectional terms, the performance appraisers were provided with researcher-made checklists which contained a list of challenges to determine the priority of challenges by scoring. The data were handled and analyzed using MAXQDA Plus version 12 and Microsoft Excel.

**RESULTS:** Our results revealed five themes and ten subthemes on the challenges of promoting the health system performance assessment. Themes (subthemes) included infrastructures (cultural and technological), implementation (organizational support, process, and responsibilities), human resources (motivation and training), assessment (performance monitoring), and content of measures (reliability and validity). We also prioritized 31 listed challenges in three priority groups, including below average, average, and above average.

**CONCLUSION:** Our findings suggest that promoting the health system performance assessment in Iran can be accomplished by allocating financial and nonfinancial motives to the performance assessment staffs, using performance assessment results in policymaking, clarifying tasks of assessment process executors, and reviewing and adapting the performance assessment indices according to contingencies in the health system.

## Keywords:

Health-care sector, performance assessment, promotion, qualitative research

## Introduction

Supervision and assessment are among the most important basis of each system that can result in quality improvement of services.<sup>[1]</sup> Great attention to the performance assessment resulted that the health system performance assessment is becoming one of the fundamental tools for the identification of the advantages

and disadvantages of health sector. An international health conference in Europe showed that the policymakers consider the comparative analysis of the performance as an important issue. Therefore, health system performance assessment and report about the performance are considered as determinative tools for estimating access to optimum health level.<sup>[2]</sup> For this purpose, promotion of performance assessment system can result in the improvement of

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decision-making about specifying resources and in the health sector, resource allocation would be performed based on the costs and benefits and weighed based on the health objectives.<sup>[3]</sup> In other words, managers can consider the promotion of performance assessment system as a basis for planning and future decision-making.<sup>[1]</sup> The drawbacks of the performance assessment system in various dimensions, such as assessment of resources, employees, objectives and strategies, are considered to be one of the signs of damage to the health system in Iran.<sup>[4]</sup>

Identification of the shortcomings and the reasons why the performance assessment system is not promoted leads to the avoidance of organizational deviation, the correction of the present circumstances, and the resolution of general and minor defects and the organization's appropriate engagement with environmental changes.<sup>[5]</sup> Therefore, in case of promotion of the health system performance assessment, developing correct targeting process; reinforcing permanent improvement process; achieving optimized utilization of the resources, especially human resources; and fulfilling organizational objectives would be expected. Moreover, it could lead to facilitating effectiveness, precisizing and rationalizing decision-making, and getting better communication between the Ministry of Health and Medical Education (MOHME) and medical universities.<sup>[1]</sup> For this purpose, the main reason of promotion of performance assessment system in medical universities is identification of challenges and prioritizing them to resolve the obstacles.<sup>[6]</sup>

The frameworks of health system assessment are divided into two descriptive and analytical groups. The descriptive framework deals with the main elements and components of the health system and is incapable of describing the differences in the performances of the health system. The analytical frameworks describe the health systems better and deeper compared to the descriptive frameworks. However, they are incapable of describing the effectiveness of the policies and corrections of the health system.<sup>[2]</sup> As we can see, each of the systems has its own challenges and disadvantages that using and promoting them would be different depending on the conditions of the countries and their contingencies.

Today, in Iran, assessment of medical universities – as authorities that responsible for implementation of health system policies – is performed as assessment of all related health system entities such as hospitals; health networks; and other educational, research, and executive sections. The indices in two general and specific dimensions are assessed based on seven deputies including treatment, health, research, education, food and drug, culture and student affairs, and administration, finance, and resource

development. The assessment scores after final check and confirmation by the Management and Planning Organization of provinces will be sent to the MOHME for ranking the medical universities. The results of this assessment are the basis for policymaking in the health system. It can be said that, promotion of performance assessment system has a direct impact on improving the capacity for decision-making and ultimately, enhancing the health of the society.

This study was, therefore, conducted to identify the challenges of promoting the health system performance assessment and prioritizing them in Iran's health sector for proposing suggestions to overcome the current obstacles in Iran's health system performance assessment.

## Materials and Methods

Two qualitative and cross-sectional methods have been used in this study that in it, using qualitative content analysis approach, challenges for promoting the health system performance assessment in Iran were identified. Then, a checklist of the challenges was given to performance appraisers in cross-sectional terms so that they would determine the priority of challenges via scoring method.

### Data gathering

#### *Phase one: Challenge identification*

Data were collected through semi-structured interviews. At first, using literature review and referring to databases and valid scientific resources about the performance assessment system, a comprehensive recognition of the problems, issues, and existing standards about the performance assessment system was attained. Accordingly, the interview guide was developed based on the study objectives and aforementioned content reviews. The interviewees included all representatives of performance assessment in medical sciences universities of Iran, which includes sixty performance appraisers. By considering the inclusion criteria such as the education (master of sciences and higher) and sufficient experience (5 years or higher about the performance assessment issues), these number was reduced to 55 by eliminating five appraisers. Between September 2019 and January 2020, we conducted interviews with performance appraisers. The interviews were performed by phone and conducted by one of the trained members of the research team (SM). Three appraisers did not desire to interview and finally, 52 performance appraisers were interviewed. On an average, each interview lasted 25 min. All interviews were audio-recorded with the permission of the interviewees and then, transcribed verbatim.

### *Phase two: Challenge prioritization*

According to the identified codes in phase one, the codes were converted to “items” named as “challenges related to the promotion of health system performance assessment.” These items in the format of researcher-made checklists were given to the performance appraisers and were asked to prioritize these items that were the challenges related to the performance assessment system. Performance appraisers prioritized the challenges via scoring rated from 1 to 6. Score “1” denotes that the mentioned challenge has no priority, score “2” has very low priority, score “3” has low priority, score “4” has medium priority, score “5” has high priority, and score “6” has very high priority.

### **Data analysis**

#### *Phase one*

Thematic analysis approach was performed to analyze the data. MAXQDA Version 12.0 (VERBI GmbH Berlin) Release 12.3.0. was used for management and data analysis. The six-step process proposed by Brown and Clarke<sup>[7]</sup> was used to perform the thematic analysis, as follows:

- First step: To get familiar with the data, two members of the research team (SM and MAR) listened to the recorded interviews and read all the transcribed interviews and reviewed them repeatedly
- Second step: A primary list was prepared from the hidden ideas in the data, and the initial codes were formed according to them. Besides, the most related segments of the interviews with the codes and repeated patterns were identified, and all the data were coded using the primary codes
- Third step: In this step of the analysis, the primary codes were reviewed and analyzed with the aim of integrating and combining more comprehensive themes. Besides, the subthemes related to each of these themes were identified
- Fourth step: The first and corresponding authors in a 3-hour meeting reviewed the themes accompanied by the coded segments of each theme. In case of the absence of meaningful relationships and patterns between them, the items would be refined
- Step five: The themes and subthemes were named. Moreover, the overlap between the themes and subthemes and their relationships were precisely checked
- Sixth step: Finally, the report of the themes and subthemes related to the challenges of promotion of the health system performance assessment was prepared.

#### *Phase two*

To prioritize the challenges, the scores were collected and the frequencies were determined using Microsoft Excel. Then, the challenges were identified for analysis

and prioritizing and were classified into three priority groups, named as below average, average, and above average. The challenges that had obtained the score “1” (no priority) were eliminated. The challenges that were prioritized in the very low and low groups (scores 2 and 3) were put in a group named as “below average,” whereas the challenges with high and very high scores (score 5 and 6) were put together in a group named as “above average.” The challenges that had obtained the score “4” were considered as the average priority.

### **Quality assurance**

To underpin the trustworthiness of this study, four criteria including credibility, transferability, dependability, and confirmability were confirmed.<sup>[8]</sup> Besides the prolonged engagement of the researchers, credibility has been operationalized through the process of member checking to test the findings. In addition, some of the transcribed interviews were given to the interviewees, and they were asked to confirm the relationships between the findings and interviewees’ viewpoints. For transferability, proper samples of the study were selected (interviewees were purposefully selected that had sufficient work experience about the performance assessment in Iran), and data gathering and analysis were performed simultaneously. In addition, it was tried to present a thick description of the data in this study. The dependability was achieved by an audit trail, in which we cross-checked the data with collaboration of an external reviewer. In this regard, the contradictory items were investigated and reasons for these contradictions were discussed, and then complementary comments of the colleagues were used in coding, analysis of content, and modifying the findings. In order to establish confirmability, it was attempted not to involve the personal values and theoretical orientations of the research team in carrying out the research and the findings derived from it.

## **Results**

The characteristics of the interviewees are shown in Table 1. Most of the interviewees were male and the educational degree of most of them was Master of Science. On an average, the interviewees had about 14 years of work experience and about 8 years of experience in performance assessment.

In the following sections, the results related to each phase of the study will be presented in two sections.

### **Challenges of promoting the health system performance assessment**

The challenges related to the promoting health system performance assessment were identified in five themes and ten subthemes. These included infrastructures (cultural and technological),

implementation (organizational support, process, and responsibilities), human resources (motivation and

training), assessment (performance monitoring), and content of measures (reliability and validity) [Table 2]. In the following sections, each theme and the related subtheme will be described in detail.

**Table 1: The characteristics of the interviewees (n=52)**

Features	Number
Sex	
Male	30
Female	22
Educational degree	
Bachelor	12
Master of sciences	33
PhD	7
Work experience (years)	
5-15	19
15-25	24
25 or higher	9
Experience in performance assessment (years)	
1-5	25
5-10	16
10-15	4
15-20	6
20 or higher	1

*Infrastructures*

The infrastructures are a group of attached structural factors that are considered as a base for the performance assessment program. Two cultural and technological subthemes were identified in this research.

Culture is considered one of the important factors in the successful implementation of the organization’s performance assessment system, and each organization has its exclusive culture specific to itself. Therefore, when the constructed organizational culture is in contrast with the real culture of the organization, the performance assessment system is prone to failure. About the culture, the interviewees pointed out the challenges such as underdevelopment and lack of propagation of the concepts of performance assessment system, no practical commitment to the implementation of performance

**Table 2: Themes, subthemes, and codes related to the challenges of promoting the health system performance assessment in Iran**

Themes	Subthemes	Codes	
Infrastructures	Cultural	Underdevelopment and lack of propagation of morals regarding performance assessment system	
		No practical commitment to the implementation of performance assessment results	
		No beliefs in the implementation of performance assessment results	
		Unbelief of senior managers to the possibility of effective use of assessment results	
	Technology	Vulnerability of performance management portal from human errors	
		Nonuser-friendliness of the performance assessment portal	
Implementation	Organizational support	Insufficiency of information and communication technology infrastructures	
		Lack of necessary data security in the performance assessment portal	
		Not proper utilization of the results of the performance assessment	
	Process	Lack of support of senior managers from the implementation of the performance management system	
		Inappropriate method of senior manager in the implementation of the performance assessment system	
		Not using the evaluation results in decision-making by the senior managers	
	Responsibilities	Lack of proper mechanism to obtain the instructions from the authorities	
		Unable to timely measure the indicators within the specified timeframe	
		Lack of clear definition of the tasks of assessment process executors at different levels	
	Human resources	Motivation	Lack of performance assessment executors regarding their responsibilities
			Nonallocation of financial motives to those involved in the performance assessment system
		Training	Nonallocation of nonfinancial motives to practitioners of the performance assessment system
Lack of training of assessment workers on how to prepare documentations			
Assessment	Performance monitoring	Lack of modular training to institutionalize the performance assessment system	
		Lack of utilizing the analysis of performance assessment results	
		No fast feedback system	
Content of measures	Validity	An incomplete conclusion of the outputs of the performance assessment system	
		Lack of emphasis of performance assessment system on organizational priorities	
		Disability to measure specific indices accurately	
		Lack of significant correlations of index scores in showing actual performance	
		Lack of dynamics and updating of indices according to needs and goals	
	Reliability	Disproportionation between the number and impact of indices on performance measurement	
		Lack of appropriate specific indices to measure performance	
		Uncertainty about the reliability of performance assessment results	
		Lack of confidence in the accuracy of the results of the performance assessment system	

assessment results, no beliefs in the implementation of performance assessment results, and unbelief of the senior managers to the possibility of effective use of the results.

According to the answers of the interviewees, currently, there exists no suitable culture for using the results of the performance assessment in the medical universities. Although there have been some activities for institutionalization and culturalism of the use of the results of the assessment, they were not sufficient. One of the interviewees mentioned about this issue that:

*“The senior managers in the medical universities do not have to believe in doing the performance assessment or using its results. Even, some of them do not read the pathology report prepared by the expert or do not give it to other people to resolve the deficiencies. For better performing the performance evaluation, the manager should be entered from the beginning of the process and accompany with the related expert in performing the processes. Therefore, he or she can be aware of the importance of the process and also a context for the active and motivated participation of the employee would be prepared. In this way, the basis for the implementation of the performance assessment in the medical universities can be created.” (interviewee number 19).*

Utilization of the information technology in the performance assessment process of the organization results in the facilitation of the formalities and increased performance of workforce and management. This means that the performance assessment can be performed remotely without the need for a physical and continuous presence in the place. This feature implies the saving time and space of the performance assessment process. Therefore, one of the main results of the utilization of information technology is decentralization alongside centralization.

During the conversation with the interviewees, most of them expressed that the technology used in the assessment process is better than the previous years in terms of speed and security, but to improve the quality and protection from human error, the officials of this system must take serious decisions for resolving the barriers. In this way, one of the interviewees stated that:

*“Performance management system must be considered by the authorities in terms of data output and information analysis so the users can use them with full confidence and can observe a comprehensive output from the input data. The system is not capable of reporting after completion of the assessment, this is not good, and we cannot get access to the results of the previous years (interviewee number 5).*

In general, the interviewees pointed out the technical challenges including the vulnerability of the performance

management portal from human errors, the difficulty of using the performance assessment system, failure of the information technology and communication infrastructures, and lack of necessary security of the information in the performance assessment system.

### *Implementation*

There is an important group of factors that has a great portion in the correct implementation of the performance assessment system, in which three subthemes of organizational support, process, and responsibilities were identified due to its importance.

Organizational support is support or help that the employees need for the successful implementation of the work. It includes items such as sufficient budget, equipment, and facilities that are suitable for doing the job, the necessary support from other organizational sections, making the high-quality product accessible, and finally, the existence of sufficient human resources.

According to the opinion of the interviewees, lack of organizational support by the managers such as not allocating the budget and proper equipment and facilities results in the decrease of the employee's motivation and not obtaining the intended results. One of the interviewees stated this:

*“The role of the managers' organizational support is undeniable during the assessment process, but the item that makes this role more significant is the use of this assessment results in decision-making and observing the related activities that result in the increased motivation of the employees” (interviewee number 12).*

A complex of specific actions are done to perform each process that follows rational and targeted orders and special sequences. The performance assessment follows this principle and must pass all of these steps. Each model and pattern that is selected in the performance assessment process should pass all the steps, and meeting the order and sequences of those activities is necessary. Two challenges of the impossibility of on-time measurement of the indices in the determined time and lack of a proper mechanism for obtaining the instructions from the authorities were raised about the process.

According to the performed interviews with the assessment experts, all of them were unanimous that the managers of the MOHME should make some modifications to the assessment process:

*“The agreement of administrative reform program was not enacted and officially communicated in the due date and before evaluating by the Administrative and Recruitment Organization of Iran. This issue results in the decreased quality of this process. This also happens for the practical*

indices. Unfortunately, practical indices are not clear due to not enactment and communication of the agreement of administrative reform program, the medical universities will be engaged in indices that are not applicable, and this is among the most important factors in wasting the assessment time" (interviewee number 8).

According to the role and position of the responsibility of the individuals in the optimized implementation of the performance assessment, the growth and improvement of the level of responsibility of individuals in the organizations should be highly attended and emphasized for implementing this program more effectively.

According to the performed interviews, it was found that approving the definite duties and making the assessment executors aware of their duties could have a determinative role in the value of their responsibility. One of the assessment executors said about this:

*"Determination of responsibility and establishing the duties can have a great role in responsibility that this will cause the managers to become sensitive about the optimized performance of the process by the assessment executors."* (interviewee number 29).

### Human resources

Reconciliation of objectives and actions of human resources managers with the objectives and strategies of the performance assessment of the organization has a determinative role in the prosperous implementation of health system performance assessment. In other words, the human resources managers and their team should consider themselves as a partner to the performance management and organization assessment process. Therefore, two subthemes of motivation and training were determined due to the importance of human resources in this context.

The prosperity in performing the performance assessment needs the special attention of the employees due to the motivation, making them sensitive to the results of the performance assessment. The right answers and positive sense of the employees to the performance assessment show the success. According to the interviews with the participants, motivation can be introduced as the most important factor in the optimized implementation of the assessment process. The motives can be stated as financial such as paying monetary rewards and nonfinancial such as a letter of encouragement and vacation. One of the interviewees stated this:

*"The monetary reward is important for some of the people and the non-monetary reward is important for other people. It is related to the view and attitude of the people, but the important issue is the existence of a proper motivational mechanism*

*for increasing the tendency of people to do this hard and difficult process. When the assessment executors have high motivation and tendency for doing the activities, they can improve the rank of the university and this is observed in the several universities"* (interviewee number 41).

Training is one of the most effective tools for the managers to confront the environmental changes, which guarantees the presence of the proper performance assessment in organizations. When established and implemented in an ordered and targeted manner and in line with the real needs of the performance management, it not only promotes the performance of the employee and the organization, but also results in the promotion of the process implementation.

The interviewees believed that the justification periods about how to prepare the documentary and complete the assessment tables have a significant role in presenting the approved documents. One of the interviewees stated this:

*"When the presentation method of the assessment documents is not taught to the assessment executors in universities, they will act to complete the tables and necessary documents according to their attitude and opinion. On the other hand, the absence of a common language between the performance assessment executors and the provincial appraisers employing in the management and planning organization can result in a significant decrease in the scores due to uploading irrelative and incomplete documents"* (interviewee number 52).

### Assessment

The managers cannot assess and monitor the performance of their organization without a powerful performance assessment system. As this assessment is performed with higher precision, the organization would be more prosperous and the success of the managers and employees would be followed. A subtheme named as performance monitoring was specified in this theme.

The performance monitoring helps the organizations to track changes intelligently in intended program objectives over time, identify the deviations, diagnose its reasons, and finally, plan for the improvement program. The performance management cycle is completed with performance monitoring. The challenges for performance monitoring include not using the analysis of the performance assessment results, absence of a fast feedback system, and incomplete conclusion of the outputs of the performance assessment system.

According to the performed interviews, it was concluded that the use of results and preparing the diagnosis report could help the deficiencies and improvement of the assessment scores in the next years. One of the interviewees stated this:

*"If all the managers specify a time for investigating the results and check the reasons for the decrease of the scores after announcing the results, it will increase utility of monitoring process and also can make proper planning for modifications by resolving the barriers" (interviewee number 36).*

### Content of measures

The measures are applied to all the measurable things. The measures can show the level of the managers' performance in the organizations. The measures being proper or improper show the quality of the assessments and the level of access to the results. Two subthemes of validity and reliability were determined for this theme.

The validity in the performance assessment system means that how much this system can diagnose the performance measurement variables and assess its components.

According to the interviewees, they believed that designing proper indices could show the real reflection of the performance and be the representative of the objectives in the medical universities. In this context, one of the interviewees stated that:

*"When the indices are defined properly and the standards are specified fit to the level of the medical universities, it could be stated that the results of the assessments are helpful for the managers and can be used for future planning and decision-making" (interviewee number 48).*

The reliability in the performance assessment system means that the stability of the assessment results should be checked over time and the results should not be fluctuated during different assessments, i.e., if we administer an assessment measure to a medical university and then re-administer it, there will be little variation over time in the results obtained.

According to the performed interviews, all interviewees agreed that the reliability of the results also ensures their validity. In this context, one of the interviewees stated that:

*"The consistency of the scores during the last two years can be a representative of the reliability of the results. Obtaining the excellent score in one year and a low score in the next year can question the reliability and indirectly validity of these assessments and this matter should be considered by the managers" (interviewee number 17).*

### Prioritizing the challenges of promoting the health system performance assessment

Overall, 31 challenges were identified about the promotion of health system performance assessment and were prioritized in three groups of challenges which include below average, average, and above average that are shown in Tables 3-5, respectively.

**Table 3: Challenges with below-average priority related to promoting the health system performance assessment in Iran**

Rank	Challenge	Percentage of the voters
1	Lack of necessary data security in the performance assessment portal	33.3
2	No practical commitment to the implementation of performance assessment results	33

As shown in Table 3, from the appraisers' point of view, two challenges are in the "below-average" category. Nearly 33.3% and 33% of the performance appraisers assigned a very low (score 2) or a low score (score 3) to these two challenges. This means that there is no priority and urgent need for extensive planning about providing the security of the data in the portal. Moreover, promoting commitment to utilize performance assessment results has low priority.

As shown in Table 4, from the viewpoint of the appraisers, six challenges were in the "average" category that assigned score 4 to them. These challenges have middle priority for promoting the health system performance assessment.

From the viewpoint of the appraisers, 23 challenges were in the category with the priority of "above average." In other words, from the 31 challenges related to the promotion of performance assessment, about 70% of them have received the scores of "5" or "6" and need immediate and serious attention. In the meantime, about 50% of the performance appraisers had assigned the highest priority to the three challenges of "non-allocation of financial motives to those involved in the performance appraisal system," "non-allocation of nonfinancial motives to practitioners of the performance appraisal system," and "lack of proper use of the performance evaluation results by the authorities,". This implies that these challenges require serious and urgent attention in order to resolve them.

## Discussion

Five themes namely infrastructures, implementation, human resources, assessment, and content of measures were identified in the first phase of this study. In the infrastructure theme, the cultural and technology subthemes; in the implementation theme, the organizational support, process, and responsibilities subthemes; in the human resources theme, the motivation and training subthemes; in the assessment theme, the performance-monitoring subtheme; and in the content of measure theme, the validity and reliability subthemes were identified. We prioritized challenges in three categories, including below average, average, and above average, according to the rating of the performance appraisers from Iran's medical universities. From the

**Table 4: Challenges with average priority related to promoting the health system performance assessment in Iran**

Rank	Challenge	Percentage of the voters
1	Lack of proper mechanism to obtain the instructions from the authorities	34.1
2	Lack of emphasis on performance assessment system on organizational priorities	33.3
3	Lack of correct and rational planning of the interactions and communications between the performance assessment pillars	30
4	Disproportionation between the number and impact of indices on performance measurement	28.6
5	Vulnerability of the performance management portal from human errors	26.2
6	No ease of utilization of the performance assessment system	23.8

**Table 5: Challenges with above-average priority related to promoting the health system performance assessment in Iran**

Rank	Percentage of the voters	Challenge
1	54.8	Non-allocation of financial motives to those involved in the performance assessment system
2	53.7	Non-allocation of nonfinancial motives to practitioners of the performance assessment system
3	50	Lack of proper use of the performance evaluation results by the authorities
4	43.9	Lack of clear definition of the tasks of assessment process executors of the medical universities at different levels
5	42.9	Lack of dynamics and updating of indices according to the needs and objectives of the medical universities
6	42.9	Not believing in the implementation of the results of the performance assessment system as the main annual processes of the universities
7	40.5	Failure to analyze the results of the performance assessment by managers and stakeholders
8	40.5	Lack of related experts' training on how to complete the indices and present the documentations
9	38.1	Lack of development and promotion of a culture of implementation of university performance assessment system
10	35.7	Lack of fast feedback system to improve activities and process of the performance assessment system
11	35.7	Lack of significant correlations between the scores of general and specific indices in showing the actual performance of medical universities
12	35.7	Lack of use of assessment results in decision-making and planning by senior management
13	34.1	Lack of proper mechanism to conclude the outputs defined in the performance assessment system
14	33	Lack of confidence in the results of the performance assessment system with medical university managers
15	32.6	The disbelief of senior managers about the potential and capacity of the effective use of assessment results
16	31	Lack of knowledge of performance appraisers at different organizational levels regarding their responsibilities
17	31	Uncertainty about the validity of performance assessment results with medical university managers
18	31	Failure to implement needed modular training to establish and institutionalize the performance assessment system in medical universities
19	28.6	Failure to identify appropriate specific indices to assess performance
20	27.9	Lack of support from senior managers of the organization for implementation of the performance management system
21	28.6	Impossibility to measure specific indices of performance assessment in a timely manner
22	26.2	Lack of relationship between senior management style and implementation of the performance assessment system
23	21.4	Presence of some failures in performance assessment system due to the weak infrastructure of information and communications technology

point of view of the appraisers, three challenges required immediate and serious attention for promoting the health system performance assessment in Iran that were nonallocation of financial motives to those involved in the performance assessment system," "nonallocation of nonfinancial motives to practitioners of the performance assessment system," and "lack of proper use of the performance assessment results by the authorities." In other words, these three challenges have been given the highest priority, requiring immediate and decisive action in terms of the need for preparation and planning to address this problem.

In studying the existing researches until performing this study, as far as we know, there are not many

studies about this issue in Iran. Of course, some researches like the study that were carried out by Fazlali have investigated the challenges and damages in the aspects of organization management, processes and mechanisms, information technology and communications, indices, validity and reliability, utilization, level and complexity of the product and technology, training, and culturalization.<sup>[5]</sup> This is similar to our subthemes stated in this study in terms of classification in five concepts of cultural, training, technology, reliability, and processes. However, it is different in terms of the nature of society and has no relationship and similarity to the performance assessment in the health system.



The only study that is similar to our study in terms of the participants is research aimed at identifying the challenges of hospital performance assessment system development that was carried out by Taslimi *et al.* The main challenges in the assessment of the hospitals' performance were the viewpoints of the managers, the dimensions of the performance, assessment indicators, objectives and audiences of the assessment, the needs of the beneficiaries, and methods of data gathering.<sup>[9]</sup> However, in our study, we investigated the challenges in the dimensions of infrastructures, implementation, human resources, assessment, and content of measures; therefore, Taslimi *et al.*'s work has significant differences with our study.

In another study, that was conducted by Mohammadi and Mokhtarian about the "pathology of the macro performance assessment system of the Ministry of Science, Research and Technology," the challenges were identified in seven dimensions. These dimensions are the proportionality of the general indices with the mission of the domains, the proposals for effective implementation of the performance assessment, advantages and disadvantages of the dedicated indices, advantages and disadvantages of the organization as the responsibility for performance assessment, noncomprehensive implementation of the performance assessment in the related ministry, advantages and disadvantages of the performance assessment committee, and the amount of overlooking to the concepts and general and specific indices.<sup>[10]</sup> These are quite different in terms of the nature of the organizational activities with the current study that include the health system. However, it is worth noting that both the MOHME and the Ministry of Science have common indices in performance assessment. Therefore, in terms of the existence of challenges related to validity and reliability, the indices are similar to the present research.

Furthermore, in another research that was performed by Amrollahi Buuki *et al.* about the "pathology of performance assessment system in public sector and executive solutions," the challenges of assessment system were grouped into two dimensions of damages to the infrastructures of designing the performance assessment system and the damages to executional mechanism of the performance assessment system and overall, nine challenges were identified.<sup>[11]</sup> This research is similar to the present research in terms of the following challenges: process, culture, and structural and content factors.

Another research was carried out by Samadian *et al.* as the "designing a performance assessment model for police and security knowledge production structures." This research proposes that to assess and improve the performance assessment system, the physical capital,

organizational capital, meeting and implementing the policies and strategies, reinforcements, meeting and implementing the rules, employees, managers, and faculty scientific board members are in top priority in the input section. In the process sections, the decision-making process, supervisory processes, and knowledge processes are in top priority, and in the output section, the knowledge processes are more important than the research activities with minor differences. In the consequences and achievements of the section of knowledge generation structure, the organizational consequences, mission consequences, and individual consequences have the top priorities.<sup>[12]</sup> We have investigated resolving the challenges related to the environment and technology as the effective factors in promoting the performance assessment system.

Mitchell and Berlan in a research have studied the challenges for performance assessment in nonprofit organizations and finally, concluded that the most important accelerating factor of the assessments is the tendency to improve the effectiveness of the program and its legitimacy. While the most important barriers included the absence of sufficient time and expenses, organizational culture, and management support to resolve the assessment challenges, the beneficiary people should be used in the assessment (interorganizational people) instead of imposing the external requirements.<sup>[13]</sup> Compared to the present research, the existence of challenges in the organizational culture context and organization managers' support are identified in both the researches.

The "social desirability response bias" is one of the drawbacks of the present study. Through this bias, the interviewees aim to provide certain responses and demonstrate the socially appropriate thoughts and behaviors or provide the responses that the interviewer wants to hear them, rather than pointing out the facts.<sup>[14]</sup> This may influence their responses in this study because of the participants' job position, and they may give the acceptable answers. To minimize this constraint, the research team had thoroughly clarified the study to the participants in this research and confidentiality was guaranteed for them.

## Conclusion

Using the findings of the current study, which have accurately identified and prioritized the challenges of promoting the performance assessment of the health system in Iran, senior managers and health policymakers may prepare to reduce the existing deficiencies in addition to checking the specified barriers and take effective steps to develop performance management in the health system in such a way to allot their remedial

programs to delegate financial and nonfinancial motives to the performance assessment staffs. In addition, careful use of the results of the performance assessment, clearly identifying the roles and responsibilities of the assessment process executives, and updating the indices appropriate to the needs and contingencies of the health system will be helpful in promoting the health system performance assessment.

### Ethical considerations

This study with research code No. 298191 received the required ethical approval from Isfahan University of Medical Sciences Research Ethics Committee with ethical code No. IR.MUI.RESEARCH.REC.1398.717. In addition, the confidentiality and anonymity of the participants were assured.

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### Conflicts of interest

There are no conflicts of interest.

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