



## **Identifying Executive Challenges of Performance-Based Payment from Medical and Educational Hospitals Administrators' Perspective and Offering Solutions in Isfahan (2018)**

Alireza Jabbari <sup>1</sup>, Nasrin Shaarbafchi Zadeh <sup>2</sup>, Behrooz Maddahian <sup>3\*</sup>

<sup>1</sup> Health Management and Economics Research Center, Faculty of Management and Medical Informative, Isfahan University of Medical Sciences. Isfahan. Iran

<sup>2</sup> Health Management and Economics Research Center, Faculty of Management and Medical Informative, Isfahan University of Medical Sciences. Isfahan. Iran

<sup>3</sup> Faculty of Management and Medical Informative. Isfahan University of Medical sciences. Isfahan, Iran

---

### **ARTICLE INFO**

#### **Article History:**

Received: 25 Jan 2019

Revised: 6 May 2019

Accepted: 27 June 2019

#### **\*Corresponding Author:**

Behrooz Maddahian

Faculty of Management and Medical Informative. Isfahan University of Medical sciences. Isfahan, Iran.

#### **Email:**

Behrooz.madahian@yahoo.com

#### **Tel:**

+98-9162378864

---

### **ABSTRACT**

**Background:** Performance-based payment is a payment model that attempts to reward the measured dimensions of performance and encourages health service providers to achieve predetermined goals by financial incentives. This study aimed to identify executive challenges of performance-based payment from medical and educational hospitals administrators' perspective and offering solutions in Isfahan 2018.

**Methods:** This study was a qualitative study. Semi structured interviews were used to collect data. The research population was 11 people (the administrators of educational and medical hospitals in Isfahan) who were selected purposefully. All interviews were recorded and then written on a paper. The duration of the interviews varied between 45 to 60 minutes. The data were analyzed using MAXQDA12 software and based on thematic analysis.

**Results:** In this study, , regarding executive challenges, seven themes and fifteen sub-themes were obtained, including the weakness of the performance-based payment project, weakness in education and educational support, low employee participation, weakness of information and communication technology, weakness of laws and regulations, unfavorable economic conditions of the public sector, and special conditions governing public hospitals.

**Conclusion:** performance-based payment, if implemented correctly, can lead to the improvement of quantitative and qualitative indicators related to employees' performance. Correct implementation requires identifying challenges and obstacles and then corrective actions. This study was able to identify and present some of the operational challenges of the performance-based payment from the viewpoint of hospital administrators.

**Keywords:** Challenge, Performance-Based Payment, Medical and Educational Hospitals, Payment System, Iran

---

### **Citation**

This paper should be cited as: Jabbari A, Shaarbafchi Zadeh N, Maddahian B. **Identifying executive challenges of performance-based payment from medical and educational hospitals administrators' perspective and offering solutions in Isfahan (2018)**. Evidence Based Health Policy, Management & Economics. 2019; 3(2): 121-30.

**Copyright:** ©2019 The Author(s); Published by Shahid Sadoughi University of Medical Sciences. This is an open-access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.



## Introduction

The main mission of health system is to promote the community health, and hospitals as the main and important part of the health system of each country are focused in performing reforms. Given that in hospitals, human resources play a major role as the core of the organization, insufficient salary or wage and inefficient payment systems has led to some problems, such as employee dissatisfaction, absence at work, quitting the job, conflicts between employees, strike, and complaints (1-3). This issue affects patient care and consequently reduces the quality of services provided to patients, increases the length of stay in the hospital and costs (3, 4). Therefore, one of the main goals of Hospital administration is to attract, maintain, and improve human resources efficiently, which depends on the design and implementation of a fair and efficient payment method (5, 6).

Considering that financial incentives are one of the most important factors affecting organizational and individual behavior in the health sector and have many effects on the organization of the health system and the quantity and quality of services, health sector administrators should consider the powerful effects of motivation on employees' behavior in designing a payment system (7, 8). According to Steven's study, by giving a reward of at least 10 percent more than employees' salaries, they can be motivated (9). Moreover, decisions about the two concepts of performance payment and payment difference are the most important components of designing a compensation service package (10). In the discussion of health financing, which is often discussed by many developed and developing countries, payment mechanisms for health care providers are very important (11). It should be noted that although giving rewards creates motivation, another important factor which can act as a motivation disincentive, is not to see differences when rewarding. Good performances are ignored in plans that pay the same for all employees regardless of individual's performance or level of accountability. This activity is not compatible with the philosophy of high-

performance companies, as well as the importance of incentive in the payment system (12).

Definition of performance-based payment is not easy in practice. Mirless and Holmstrom are among the first who have emphasized the importance and superiority of the performance-based payment system to other reward systems, in situations where supervision is costly (9). Right has defined the performance-based payment as a part of financial and non-financial rewards of individuals directly linked to the performance of a person, team or company. Performance-based payment is a payment model that tries to reward measured dimensions of performance and encourages health service providers to achieve predetermined goals by financial incentives (13, 14). The correct payment mechanism, on one hand, motivates employees, and on the other hand, is an instrument in the hands of administrators and health system administrators to control costs; therefore, it has always been a concern for healthcare providers (15, 16).

The performance-based payment in different countries has yielded different results. For instance, implementing this system in the UK has improved immunization and uterine screening tests, as well as improving the quality of the services provided before the introduction of the plan (17). In Turkey, performance-based payment has also led to an increase in doctors' efficiency and a reduction in the number of patients per physician. In general, implementing this system in Turkey has been satisfactory and has led to a successful progress in providing health services (18).

In Iran, a research project has been conducted experimentally in this regard since 2004 in Shahid Hasheminejad subspecialty medical and educational center in Tehran. Since 2006, the design of a performance-based payment system has been developed based on the guidelines for managing the selected hospitals in order to justify payments and establish a proper system of rewarding and evaluating staff. The results of this hospital has shown an increase in satisfaction of clients and staff, reducing work risks and



accidents, reducing the absence of staff, increasing patients admission of clinical, emergency, echocardiography, angiography, sonography, nuclear medicine and surgeries (1, 19). Moreover, performance-based payment at Yasuj Shahid Beheshti Hospital shows an increase in patients' satisfaction (3). Contrary to successful experiences in other countries, in Canada, due to the lack of a system for accurate evaluation of performance in many healthcare organizations, these organizations were not successful in applying performance-based payment methods (20).

Considering the upstream documents, including Article 32 (clause C), the 5<sup>th</sup> Five-Year Plan of Development of the Islamic Republic of Iran, the Health Development Plan (May 2012), and the general policies of the administrative system of the Supreme Leader (April 2010), which (in the 9<sup>th</sup> aim of sub-clause 7<sup>th</sup>) emphasizes the reform of the payment system, the instruction on the method of performance-based payment was implemented definitively in the educational and medical hospitals of Isfahan in early July 2013 (4, 5). Several studies have been conducted to assess the impact of performance-based payment methods; however, in Iran, no study has been conducted specifically on the performance challenges of the performance-based payment in hospitals from the viewpoint of hospital administrators. Therefore, this study was carried out in this regard.

### Materials and Method

The present study, based on the results is an applied research and temporally, a cross-sectional study which was carried out using qualitative research method and content analysis approach. The main purpose of the study was to identify the implementation challenges of the performance-based payment from the viewpoint of Isfahan medical and educational hospital administrators and providing solutions. Therefore, a semi-structured interview method was used to collect data. The population of this study was the administrators of medical and educational hospitals in Isfahan (including 11 hospitals). First, the interview manual was developed and then a total of

11 interviews were conducted at the Hospital administration office. The method of conducting interviews was by telephone or in person and by referring to the Hospital administration office. All interviews were recorded by the tape recorder to increase the accuracy of the collected data. The length of the interviews was between 45 to 60 minutes (an average of 50 minutes). In this study, in order to obtain the credibility of the researcher's excellence, by using guidance, experience and assistance from the supervisor and counselors, several interviews were conducted experimentally before the study was started by the researcher. The first interviews were then reviewed by the supervisors and counselors to control their correctness. To enhance the reliability of the codes after extraction, most of the participants were referred and their views were taken into account. Lincoln and Guba criteria were used to determine the reliability of the data. This criterion is equivalent to credibility and reliability in quantitative studies (21). Therefore, four criteria of credibility, confirmability, dependability and transferability were investigated (22). In the first stage, after each interview, the interviews were immediately typed and stored in the MAXQDA12 software. In the next step, the text of the interviews was read and reviewed, so that the researchers found enough mastery in the data. In the third step, the data were broken into code semantic units (in the form of sentences and paragraphs related to the original meaning). Semantic units were also reviewed several times, and then the proper codes for each semantic unit were written. In each of the interviews, the sub categories were separated from each other, and then they were merged and the main themes were identified. In the next step, the categories were classified according to conceptual and semantic similarity and became as small as possible. Finally, the data were placed in main categories which were more general and conceptual, and then abstract themes and suggestions were provided. In order to observe ethical considerations in this study, people were entered completely voluntarily and consciously and their specifications and information remained



completely confidential. It should be noted that the informed consent of individuals has already been taken. The ethics code of the dissertation, of which the article is extracted, is 3.423.

## Results

After the interviews were written and coded, the codes were extracted from the data. According to the collected data, about 800 initial codes were identified. Then, the same codes were merged and finally, based on these codes, the main themes and sub themes related to each topic were categorized.

Accordingly, seven categories of factors prevent the successful implementation of performance-based payments in government hospitals. The seven main themes included: inherent weaknesses in performance-based payments, weaknesses in education and educational support, poor participation of employees in successful implementation of the program, weaknesses in information and communication technology, deficiencies in the laws and regulations, undesirable financial public sector conditions, and special conditions public hospitals, which are explained in more details below.

### First theme: the inherent weaknesses of the payment-based payment program

This program did not take into account the specific conditions of various hospitals. However, different hospitals have various conditions in each of their sectors.

"For example, a hospital like ours, its paraclinical section is just available now, since the hospital needs it. So when there's no activity, and just because a hospital needs to have a radiology department, how it can earn money?" (Interviewee 1)

### Second theme: Weakness in education and educational support

Education and development of human resources make it possible for individuals to continue their activities in accordance with hospital changes and the environment and increase their performance. Staff and supervisors need to be educated on the methods of the performance-based payment. Lack of education causes the staff and expertise to have

limited knowledge in successful implementation of performance-based payment, which can prevent successful implementation of the program.

"There was no good education. At least a week of educational classes was needed, and an educated person was needed to implement ghasedac scheme." (Interviewee 8)

Third theme: Poor participation of employees in successful implementation of the program

The performance-based payment in public hospitals directly relates to employees' salary. Implementation requires employee participation and lack of employee participation and support can be a challenge to its successful implementation at the organization level. Delay in payments, as well as differences between clinical and non-clinical employees, can be the source of dissatisfaction and lack of employee participation.

"Generally, when the organization wants to implement a new plan, employees disagree, especially with regard to their rights. This performance-based is unclear, which causes confusion and lack of participation." (Interviewee 3)

### Fourth theme: The weakness of information and communication technology

Having accurate, relevant, timely and fast information will increase the quality of decisions and planning. The technology and information systems of public hospitals can help collect information about individuals and create a comprehensive database to enable administrators to use the accurate information to pay people according to their performance. However, in public hospitals, these kind of comprehensive information systems either do not exist or, if any, the information is not accurate and timely.

"This ghasedac scheme itself has some charts based on which the score are given. Our supervisors do not fill these charts at all. They score the way they like." (Interviewee 4)

There is no link between the attendance system and the ghasedac system.

"There is still a problem in the attendance systems, and they do not really support ghasedac



output, and we need to manually calculate or by Excel software. On the other hand, attendance is not examined in many physicians.” (Interviewee 5)

#### **Fifth theme: Defects and weaknesses in laws and regulations**

The deficiencies in laws and regulations in terms of performance, and even the criteria for assessing the individuals’ performance in public hospitals, prevent the successful implementation of a performance-based payment. For example, the weaknesses in the laws related to the prohibition of simultaneous physicians’ activity in the public and private sectors.

“The faculty physician now operates in the morning in the private sector, and there is no supervision. The ministry has neither good policy nor good supervision, and this is a serious problem.” (Interviewee 2)

#### **Sixth theme: unfavorable financial condition of the public sector**

Undoubtedly, a performance-based payment that is intended to be permanently established in public hospitals requires prerequisites, including favorable state economic conditions. Moreover, the Ministry of Health must make changes to the plan in the best economic conditions and manage hospitals towards better performance. The economic problems that are currently affecting public hospitals have made them unable to pay regular salaries of employees and has made the staff pessimistic to the plan. Hospital staffs sometimes lack the incentive to play a role in their hospital due to their irregular salary.

“The months in which the hospital income is good and the amount for each fund is considered to be high, and I can pay all of this (overtime, productivity, and fee for service), but for most months, hospital income is low and does not cover all the three case. Sometimes the income just covers overtime” (Interviewee 9)

#### **Seventh theme: Special conditions of public hospitals**

Sometimes in public hospitals there are certain conditions that indirectly affect programs like performance-based payments, and in fact act as a

disruptive sub-factor. The existence of these conditions has confused the hospitals to successfully implement the performance-based payment. If a hospital makes low scores in accreditation, it will receive fewer payments and indirectly affects employees' incomes.

“But they have not thought about it, for example, when we gain a low score in accreditation and they give us a little money for hoteling for example, then it affects the income of the sector and the employees will get less money without bad performance.” (Interviewee 11)

#### **Providing solutions**

Considering the challenges identified and discussed in this study, the following strategies are recommended to continue the successful implementation of performance-based payment in medical and educational hospitals (solutions are respectively in line with challenges (challenge numbers 1 to 7)).

1. Given that the conditions of the hospitals are different from each other, the solution to this challenge is specific for each hospital, according to its particular circumstances; a "special version" of ghasedac should be designed in accordance with the particular conditions of the hospital. "the same version" of ghasedac can be also used for all hospitals, but in a "redesign" style that is "flexible and adaptable" to different hospital conditions.

2. "Applied, coded, and continuous (periodic) education should be provided for hospital ghasedac officials. These educations can be done virtually and online in a coordinated and national manner. Ghasedac authorities also should provide educations and explanations for the "clarification" required for hospital personnel. The ministry also has to design and activate a dynamic and active system for "responding" to the ambiguities and questions of hospitals.

3. The poor employee participation in performance-based payment is an effect that is itself subject to two causes. One is the ambiguities is about the design, dimensions and effects of the staff, and the other is the difference and delay in the payments of the hospital staff. Clearly, the



solution to this challenge (poor employee participation) is in the causes of this effect. Therefore, the employees' satisfaction can be gained and to make a commitment to participate by "participating employees and engaging them in the implementation of this program". The use of the "the fund or system of suggestions" can be helpful in this regard.

4. Correct and timely decisions require accurate and timely information. This is an accepted principle in management. Correct and timely information is also the output of an integral and correct information system. Therefore, the hospital information system should be "reviewed" in line with the objectives of performance-based payment to provide adequate output for the ghasedac system. On the other hand, this system should be appropriately interlinked between different hospitals; which is referred to as the integrity of hospital information systems. Information is the basis of judgment; therefore, the information must be accurate and correct. One of its requirements is the "creation and enforcement of laws", which requires the "all employees" to observe the attendance system and connect the system to the ghasedac and staff salaries payment system.

5. The implementation support of a plan is executive and supervisory rules. Unfortunately, evidence suggests a weakness in this regard in the performance-based payment of hospitals. The rules must be reviewed and their enforcement must be taken seriously. This is a shared responsibility to the hospital and ministry. One of these rules is the law of observance of doctors' income (especially in the private sector, which is the hidden part of this program) and assigning the appropriate tax (The

researcher's suggestion is the implementation of an ascending tax system).

6. The performance-based payment is a plan enforced by public hospitals. It needed a strong financial and monetary support to pay the costs. However, the government does not have proper financial and monetary conditions, so it is the time to rely on the administrators' ability and strength them instead of relying on financial and monetary support. Out of the 11 hospital administrators, more than half of them are physicians, and others are often from unrelated areas of health management. Therefore, it is suggested to develop a long-term plan for replacing expert administrators instead of current administrators, as well as developing a short-term plan to empower current administrators. Those administrators who can rely on their administrative ability instead of relying on their ability to spend monetary and financial resources.

7. Several sub-factors as a disturbing factor affect the proper implementation of a performance-based payment. They have to be identified and controlled. For instance, the indirect impact of the hospitals accreditation score on the money paid to the hospital as well as conflict of interest at the level of the Ministry and the level of Hospital administration. Creating appropriate rules and reviewing current laws is a solution to these challenges.

8. Ultimately, the general solution including each of the 7 challenges of the performance-based payment is to take seriously the implementation of the "monitoring" element. All the described solutions, in practice, lose their effectiveness without observing the element of "continuous monitoring."

**Table 1.** Demographic status of the participants in the interview

	Item	Number	Percent (%)
<b>Job position</b>	Hospital Administrator	11	100
	Female	1	9.1
Sexuality	Male	10	90.9
	Married	11	100
Marital status	Single	0	0
	Bachelor	1	9.1
Education	Master	3	27.27
	General Practitioner	7	63.63

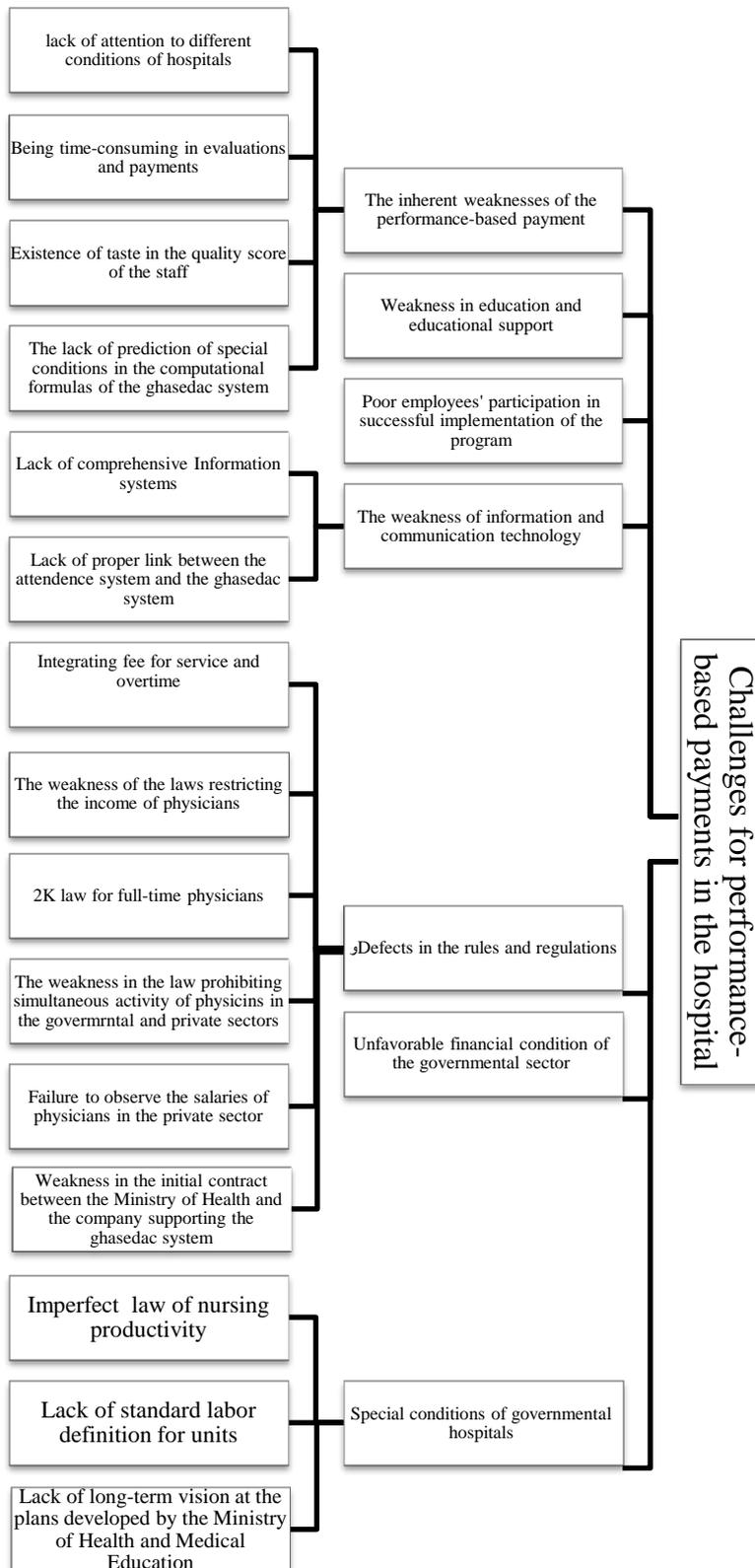


Figure 1. The main themes and sub-themes obtained from data analysis



## Discussion

In this study, seven challenges were identified, including the weakness of the performance-based payment project, weakness in education and educational support, low employee participation, weakness of information and communication technology, weakness of laws and regulations, unfavorable economic conditions of the public sector, and special conditions governing public hospitals.

A study in 2006, in Canada, has identified the challenges of the performance-based payment in hospitals and stated challenges, such as the lack of a clear evaluation system with clear objectives and weaknesses educating employees (20). The present study has explicitly identified the education weakness as a fundamental challenge. The plan, which its main beneficiaries are employees, need the support and participation of employees, and this depends on their adequate education.

Armstrong stated that the unfair rating is a challenge in implementing a performance-based payment and it leads to an incorrect assessment of employees' performance, and this can also be detrimental to employees' morale (22). Moreover, it can affect successful implementation of the plan. This issue overlaps with what has been described in the study titled "Existence of taste in the quality score of staff".

The successful implementation of a plan to expand the performance-based payment in hospitals undoubtedly requires active and intense employees' participation. Poor employees' participation may be due to the fact that they think of a new plan as a threat to themselves, which leads to resistance and lack of participation. This is where the importance and role of the Hospital administration is determined in order to educate the employees. Administrators do not spend time talking with the staff and justify them which is the result of a study conducted in Canada (20). Poor employees' participation can also be due to delays in paying their salaries, as well as differences in payments to different groups in the hospital. This delay, and this difference, weaken the motivation of the employees and reduce their participation.

Developing motivational criteria and linking these criteria with employees' payment is an important factor in successful implementation and engagement of active employees, as identified in the study by Kondo et al., conducted in 2016 in the United States. This result is consistent with the findings of the present study, referring to employees' participation as a challenge to the successful implementation of a performance-based payment in hospitals, and provided creating motivational criteria as a solution of the challenge (23).

An operational plan, no matter how perfect it is, if it fails to carry out the necessary monitoring, it will exit its desired path, like the performance-based payment. The simultaneous activity of physicians in public and private sectors, the lack of compliance with the attendance system by physicians, and the weakness in the observation of the income of physicians in the private sector identified in the present study as challenges to the performance-based payment, can be controlled with proper supervision. Eldridge and Palmer, in their study in Canadian healthcare system, has emphasized monitoring as a necessary and essential requirement for the successful implementation of the performance-based payment (24).

Given the economic difficulties in public hospitals, as well as the special conditions governing public hospitals, which are often the result of notification instructions, and hospitals have to follow them, including the law of nursing efficiency and the law of 2K for full time physicians, regardless of their funding, unfortunately, it seems unlikely that public hospitals will have difficulty implementing a successful performance-based payment.

## Conclusion

It can be admitted that performance-based payment is a fair and equitable method of payment, and if implemented correctly, it can lead to improvements in quantitative and qualitative indicators related to employees' performance. Correct implementation requires identifying



challenges and obstacles and then corrective actions. This study was able to identify and present some of the operational challenges of the performance-based payment from the viewpoint of hospital administrators. The next step requires the attention and action of policy makers and executives of the performance-based payment to use the results of this study and similar studies that will be carried out and presented in the future to improve and correct the plan. Given the challenges presented in this study, this issue requires inter-organizational action (within the hospital), by hospital administrators, as well as intra-organizational action (at the Ministry level) by policy makers and top administrators of the health system.

### Acknowledgment

### References

1. Raeisi P, Alikhani M, Mobinizadeh MR. Fee for Service (FFS) payment on the basis of performance in Hasheminejad Hospital, Tehran. *Journal of healthcare management* 2010; 2(1): 27-36. [in persian]
2. Jahani F, Farazi A, Rafeei M, Jadidi R, Anbari Z. Job satisfaction and its related factors among hospital staff in Arak in 2009. *Arak Medical University Journal* 2010;13(1):32-9. [in persian]
3. Najafi S, Ahmadi F, Mohammad J, Bagheri M, Asgari M. Job satisfaction of nurses in Shaheed Beheshti Hospital. *Shahid Beheshti Journal of Nursing and Midwifery* 2005; 51(15):50-8. [in persian]
4. Tavkoli MR, Karimi S, Javadi M, Jabari AR. The Survey weaknesses performance Based Scheme (New Guidelines fee for Service Design) in Selected Teaching Hospitals of Isfahan 2014. *Journal of Healthcare Management* 2016; 6 (4) : 13. [in persian]
5. Jannati A, Kabiri N, Asghari Jafarabadi M, Pourasghari B, Baya B. Surveying impact of performance based payment on efficiency of clinical laboratory of teaching hospital of Imam Reza in Tabriz *Journal of Hospital* 2015; 14 (1): 51-62. [in persian]
6. Roberts M, Hsiao W, Berman P, Reich M. Getting health reform right: a guide to improving performance and equity. New York: Oxford University Press; 2003. P: 191-211.
7. Witter S, Ensor T, Jowett M, Thompson R. *Health Economics for Developing Countries: A Practical Guide*. New York: Mcmillan education; 2002. p. 181.
8. Ebadifard Azar F, Badloo M, Rezaei E. Examining the relationship between Payment based on new managerial approach for hospital administration, Expectancy theory and job satisfaction in selected hospital staff of Tehran university of medical sciences in 2013. *Hospital* 2015; 13 (4): 123-32. [in persian]
9. Movahedi M. Pay-per-performance model with an emphasis on socio-cultural characteristics of Iran (Case study: the staff of universities in Tehran city). Tehran: Allameh Tabatabai University; 2012. [in persian]
10. Milkovich GT, Newman JM. *Compensation*. 9th ed. New York: McGraw-Hill Irwin; 2008. P: 307-415.
11. Philippine Institute for Development Studies. *Financing Reform: Issues and Updates* Development Research News. 1998;98(6).

The authors would like to thank all advisors, colleagues and also Vice Chancellor for Research of Isfahan University of Medical Sciences for the financial and moral support. The number of study project was 396423.

### Conflicts of interest

The authors declare that they have no conflict of interests.

### Authors' contribution

Jabbari A and Shaarbafchi zadeh N designed the research; Maddahian B conducted the research, Jabbari A and Shaarbafchi zadeh N revised the article and supervised the research. Maddahian B analyzed the data, Maddahian B wrote the article. All authors read and approved the final manuscript.



12. Pfau B, Kay I. The hidden human resource: Shareholder value—finding the right blend of rewards, flexibility, and technology to manage your people adds measurable value to the corporate bottom line. *Optimize Magazine*.2002.
13. Bruin SR, Baan CA, Struijs JN. pay-for-performance in disease management: a systematic review of the literature. *BMC Health Serv Res*. 2011;11(1): 272.
14. Cromwell J, Trisolini M, Pope G, Mitchell J, Greenwald L. Pay for performance in health care: Methods and approaches. Research Triangle Institute. 2011.
15. Carrin G, Hanvoravongchai P. Provider payments and patient charges as policy tools for cost-containment: how successful are they in highincome countries? *Human resources for health* 2003; 1 (1): 6.
16. Rosenthal MB. Pay for performance: a decision guide for purchasers. Agency for Healthcare Research and Quality (AHRQ) 2006; (6): 1-47.
17. Doran T, Fullwood C, Gravelle H, Reeves D, Kontopantelis E, Hiroeh U, et al. Pay-for-performance programs in family practices in the United Kingdom. *N Engl J Med*. 2006; 355(4): 375-84. doi 10.1056/NEJMsa055505.
18. Kaptanoglu AY. Performance based supplementary payment systems in Istanbul public hospitals. *J Higher Edu Sci* 2013; 3(2): 128-32.
19. Etemadian M, Barzegar M. Pay for performance case study: Hashemi nezhad center. Tehran: Sharegh; 2012. [in persian]
20. Greengarten M, Hundert M. Individual Pay-for- Performance in Canadian healthcare organizations. *Healthc Pap* 2006; 6(4): 57-61. PMID: 16825859.
21. Polit DF, Beck CT. Nursing research: Principles and methods Lippincott Williams & Wilkins; 2004. P: 97-118.
22. Armstrong M, Baron A. Performance management. 1nd ed. [Translated by: Ghlichli Band gholamzadeh D]. Iran Industrial Education and Research Center 2006;175-181.
23. Kondo KK, Damberg CL, Mendelson A, Motu'apuaka M, Freeman M, O'Neil M, et al. Implementation processes and pay for performance in healthcare: a systematic review. *Journal of general internal medicine*. 2016;31 (1): 61-9.
24. Eldridge C, Palmer N. Performance-Based Payment: Some Reflections on the Discourse, Evidence and Unanswered Questions. *Health Policy and Planning* 2009; 24(3): 160–6.