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Performance payment challenges for family physician program

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Abstract:

CONTEXT: Payment mechanisms are one of the effective tools for achieving optimal results in health system. Pay for performance (P4P) is one of the best programs to enhance the quality of health services through financial incentives. Considering of implementing family physician program in Iran and the P4P system, it is essential to address the challenges of implementing P4P system in the family physician program.

AIMS: This study aimed to investigate the challenges of implementation of P4P system in family physician program.

SETTINGS AND DESIGN: The qualitative study was carried out at areas covered by Iran University of Medical Sciences in Tehran, Iran.

MATERIALS AND METHODS: The semi-structured interview was conducted on 32 key informants in 2019. The sampling method was determined based on purposeful sampling. The topic guide of interviews was experiences in implementing of family physician program and challenges of implementing P4P system. Participants had least 5-year experience in the family physician program.

STATISTICAL ANALYSIS USED: A framework analysis was used to analyze the data using the software MAXQDA 10.

RESULTS: The current study identified 7 themes, 14 subthemes, and 46 items related to the challenges to successful implementation of P4P systems in the family physician program including family physicians' workload, family physician training, promoting family physician program, paying to the family physician team, assessment and monitoring systems, information management, and the level of authority of family physicians.

CONCLUSION: The study results demonstrated notable challenges for successful implementation of P4P system which can helpful to managers and policymakers.

Keywords:

Challenge, family physician, pay for performance

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Introduction

The main mission of health systems is to provide high-quality care and a satisfactory level of health outcomes. However, studies have shown that high costs cannot necessarily lead to satisfactory health outcomes, many governments have carried out initiatives and programs to manage performance indicators such as quality and efficiency.^[1-3] Pay for performance (P4P) is one of the best programs designed to

enhance the quality of health services through financial incentives.^[4] It aims to improve the quality and efficiency of services and overcome to the shortcomings of conventional repayment systems.^[5,6]

In P4P mechanisms, the payments are provided based on the quality and efficacy of cares. This system is used as a complement to the volume-based methods (Fee for service), case payments, and per capita payments.^[6,7] As health-care costs increase, health systems are increasingly turning to P4P mechanisms to balance quality and

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efficiency.^[8] However, P4P mechanisms have some major disadvantages, including inappropriate health outcomes, the spread of inequality, and the possibility of rising costs.^[9] Using P4P system for primary health care and family physician program may lead to inappropriate and unnecessary use of therapeutic procedures.^[10,11]

The P4P systems which are currently being used have significant differences in terms of evaluation methods, payment mechanisms, and outcomes.^[12] Considering of implementing family physician program in Iran and the necessity of implementing a P4P system, it is essential to conduct a study to address the challenges of implementing P4P system in the family physician program. This study was conducted to investigate the challenges of implementing P4P system in the family physician program of Iran.

Materials and Methods

Semi-structured in-depth interviews were conducted. 32 participants including the senior managers with at least 5 years of experience on the family physician program were recruited via a purposive sampling (snowball method). The interviews were accomplished from November 2019 to January 2020 in Tehran, Iran. All interviews were conducted face to face until information saturation. An interview guide was developed by the researchers, according to existing literatures and the collective agreement of the research team. The topic guide of interviews was experiences in implementing of family physician program and challenges of implementing P4P system. The interviews were digitally recorded and transcribed verbatim. All interviewees agreed to record their voices. Ethical approvals were obtained from the Iran University of Medical Sciences Research Ethics Committee (No.: IR.IUMS.REC.1397.243). The participants were explained the nature of the study, and written informed consent was obtained before the interviews.

A framework analysis was conducted to analysis the data using Gale *et al.*^[13] model. At first, audio records were listened by researchers to confirm precision of transcripts and to note key ideas and recurrent themes. Data coding and analysis were carried out using the MAXQDA 10 software (WERBI Company, Berlin, Germany).

Two researchers carefully read the first three transcripts line by line and described what they had interpreted in the passage as a code. The codes were compared and were agreed on a set of codes. Then were indexed subsequent transcripts using the agreed categories and codes. The data were charted into the matrix and themes were generated by reviewing the matrix and

making connections within and between participants and categories.

Results

The current study identified 7 themes, 14 subthemes, and 46 items related to the challenges of implementation of P4P systems in the family physician program. The main themes included family physicians' workload, family physician trainings, promoting the family physician program, payment system of family physician team, assessment and monitoring systems, information management, and the level of authority of family physicians [Table 1].

The workload of family physicians

The broadness of duties

The first challenge according to participants was the broad range of duties defined for physicians. They claimed that the workload is high, so many related affairs cannot be done with acceptable quality. It has been stated that when there are too many people covered by a physician, basic tasks such as providing training and research can not be performed well. That's what they said: "*The range of defined duties for family physicians is very extensive and the workload is very high, and there is not enough time for doing preventive and promotional activities.*" (interview 3) "*The implementation of P4P system will be effective only when the duties assigned to family physicians are reasonable and within their capabilities.*" (interview 5).

Family physician training

The lack of management skills in family physicians

Another challenge was the lack of management knowledge in family physicians, especially in leadership, managerial role, and communication skills. They stated: "*Leadership training courses of the physicians are very limited, and in many cases the doctors do not receive any in-service training, especially in management affairs.*" (interview 1) "*Physicians in the family physician team have not been trained to carry out the affairs related to this program.*" (interview 9).

The lack of knowledge and skills in preventive and social medicine

Another challenge was the limited knowledge of family physicians to deal with preventive and social medicine. According to the participants, they do not have enough knowledge and skill regarding family physician programs for playing an effective role. As a result, family physicians were not involved in preventive and family-care programs, which led to a lack of community-based services and incomplete services. "*Medical students do not receive proper education on how to play an effective role in family physician program at the university, and this leads to the formation of a treatment-based mentality in them*" (interview 5).

Table 1: Challenges to successful implementation of the pay for performance system in Iran's family physician program

Main themes	Subthemes	Related codes
The workload of family physicians	High workload of family physicians	The broadness of duties The large number of covered people
Trainings provided to the family physicians	The lack of management skills in family physicians The lack of knowledge and skills related to preventive and social medicine in family physicians	Lack of knowledge and leadership skills Lack of knowledge and skills related to quality Lack of knowledge and skills related to teamwork Neglecting public health courses by medical students Lack of newcomer and in-service trainings The weakness of training the family physicians, especially in promotional and preventive affairs The physician's activity in family physician team limited to the conventional therapeutic approach The weakness of the family physician skill for activities of the program
Cultivating family physician program	The lack of awareness among people about the nature and importance of family physicians Underestimating the status and importance of family physicians by themselves Weak intra/extra-collaboration with family physician team	Poor informing of the ministry of health and medical education and the mass media about family physician program Failure to comply with the referral system by individuals People's little trust in the expertise and ability of the family physician The use of physicians with little experience as a family physician The insignificance of family physicians compared to specialties Not considering family physician as an important specialty The view by family physicians that this job is a temporary one and they will leave it soon Poor collaboration of institutions outside the health sector with family physician team Not providing feedback by specialists to the family physicians about referred patients
Payment mechanisms of family physicians	Low budget of primary health care The lack of proper mechanisms for creating a pay for performance system	Low budget of primary health care compared to hospital services Paying very little amount of money to family physicians compared to specialists Insufficient infrastructure to create a performance-based payment system Clinical and treatment views of the managers in charge of paying family physicians Individual-centeredness of payments Lack of competition among family physicians
Assessment and monitoring mechanisms	The lack of criteria and scientific tools for qualitative assessment of the program The absence of a well-defined mechanism for assessment The lack of appropriate assessors	The lack of suitable criteria and assessment tools even for routine monitoring programs Not considering the conditions of work environments and different communities while monitoring The lack of attention to the multiplicity of functions and results in evaluations Government-owned monitoring and evaluation system and the lack of an independent entity for this task Lack of proper accreditation system in the field of primary health care Overlooking the mistakes of doctors due to lack of required amount of physician The lack of organization and discipline in monitoring and evaluations The lack of trained and experienced assessors Improper behavior of assessors with family physician and his/her team
Information management	Poor information infrastructure Poor management of production cycle and flow of information in the system	Weakness in software and hardware infrastructures such as the internet and. Lack of proper health records for people, especially in electronic form Poor management in the cycle of data collection and analysis as well as the production and flow of information Poor and incomplete filling of existing files by the physicians Lack of appropriate databases related to health centers and their performances The lack of proper information exchange between institutions and different levels in the provision of services Neglecting the verification of documentations and reports provided by family physicians Noncorrespondence of the data and information created in the system with the real needs Negligence of user-friendliness of the information provided for different users
Authority level of family physicians	Insufficient authority of family physicians	Inadequate authority of family physicians to establish intra/extra sectoral relationships Lack of adequate supervision of family physicians over the health team and social workers Inadequate authority of physicians in the selection or modification of the health team members

Promoting the family physician program

The lack of awareness among people about the nature and importance of family physician

According to the participants, the proper awareness has not been provided about the nature, objectives, importance of family physician program by the Ministry of Health, and other responsible institutions in the community. This has led people to be unaware of the goals of the program and not to cooperate with it. *"People are unfamiliar with the nature and philosophy of family physicians, because some responsible organisations as the Ministry of Health and the media do not provide adequate information about family physician program"* (interview 12).

The insignificance of the family physician according to their own opinion

In addition to the unawareness of community, family physicians did also not have a proper understanding about this program. They believed that they were less important than clinical specialists. Some statements were: *"Family physicians consider their duties less important than clinical specialists and they're not aware of the important role of family physicians in creating a healthy society."* (interview 4).

Lack of internal/external cooperation of other organizations with the family physician team

Participants argued that solving many of the problems of the family physician program requires the close cooperation of many other institutions: *"In many cases, we need cooperation within the team, such as staffs and people, and in many cases we need the cooperation of other organizations such as wastewater organizations, road agencies and etc., this cooperation is not achieved."* (interview 2).

Payment mechanisms of family physicians

The low budget of primary health care

Another existing challenge was the inadequate budget allocated to primary health care, which dramatically discourages the physicians. They stated the inadequacy of financial resources reduce the ability for interventions. Participants stated: *"The allocated fund to primary health care sector is much lower than hospitals. It is contrary to economic principles. This will weaken the performance indicators of the health system, especially in the area of justice and access"* (interview 16).

The lack of proper mechanisms for creating a P4P system

According the participants, the lack of infrastructure and facilities was one of the main obstacles. They mentioned that hardware and software facilities are not available. *"Our infrastructure is not enough to implement the performance payment program. One of the obstacles is the lack of software and hardware facilities"* (interview 13).

Assessment and monitoring mechanisms

The lack of criteria and scientific tools for qualitative assessment of the program

According to the participants, monitoring programs were not done objectively and scientifically and there was no suitable tool for assessment. *"The monitoring methods are not consistent with actual performance of the family physicians"* (interview 4).

The absence of a well-defined mechanism for assessment

Another serious challenge was the inappropriate mechanisms and processes for assessment. According to the participants, the current mechanisms for monitoring and assessment were purely governmental. They stated due to political pressures on government mechanisms, an independent appraisal institution is needed. *"It is essential to define and implement an appropriate accreditation program needs for primary health care and family physician program"* (interview 7).

The lack of appropriate assessors

Another major barrier was the lack of appropriate assessors for objective and scientific evaluation of family physician program. *"Assessors are usually selected from the individuals who have not been involved in the health system. They have no administrative experience which leads to inappropriate assessments"* (interview 5).

Information management

Poor information infrastructure

According to the participants, poor information infrastructure was another major deficiency. Software and hardware infrastructures were not adequate for monitoring and the computer systems were not equipped appropriately. *"We still do not have access to the internet and computer in many rural areas. The internet connection is also very slow, and our systems are inadequate."* (interview 8).

Poor management of production cycle and flow of information in the system

Participants believed that collecting appropriate and timely data on health status of people in the community is very essential. Data collection and its proper analysis play a crucial role in the continuous improvement of health systems.

Authority level of family physicians

Insufficient authority of family physicians

Participants complained of a lack of authority in some cases such as the selection of team members or change the positions. *"Family physicians lack adequate control and influence over their team, because they have little role in selecting, recruiting or changing them"* (interview 8).

Discussion

This study was designed to identify the challenges of P4P system in family physician program in Iran. The main themes included family physicians' workload, family physician training, promoting the family physician program, payment system of family physician team, assessment and monitoring systems, information management, and the level of authority of family physicians.

In this study, workload was one of the main challenges. Results of Kalan *et al.*^[14] study also determined workload as a challenge for family physicians program. They stated work environment and list of patients in every day affected workload in family physician programs. One study also showed when physicians have a high workload they more perceive their efforts go unappreciated and so their patient relationships are inequitable.^[15] According to the results of this study, in order to reduce the workload of family physicians, it is necessary to define physicians' workload and assign reasonable range of tasks and activities based on working and timing.

The results of this study showed the lack of training as one of the challenges. The study of Osborn *et al.*^[16] showed physicians' training and attention to performance pay as one of the challenges of the physician program in primary care. Similarly, the results of van der Voort's *et al.*^[17] study pointed to the challenge of training in family physician programs and emphasized the training of physicians in management, communication, and research skills. According to the results of this study, due to the deficiency of training, some training topics such as health-care management and communication skills of physicians are necessary in Iran.

The findings of this study emphasized the promotion of family physicians' programs via raising public awareness by organizations and the media. The Majidi *et al.*'s^[18] study identified awareness as an important factor that enhances people's agreement with establishment of family physician program and their intention to participate in the program. They also reported that the majority of people are informed about the family physician program through the media. Results of Alidoosti *et al.*^[19] study indicated appropriate knowledge as a challenge for the family physician in rural area. They confirmed the need for more education in improving and increasing knowledge. As well as, one study emphasized the importance of teaching management courses to family physicians.^[20] According to our findings, awareness among physicians and user services is an important factor to success family physician program in Iran.

The results of this study revealed shortage of funding and a lack of a proper payment system in the family physician program. Similarly, a study of Majdzadeh^[21] showed the deficiency on financial support for the implementation of family physician program as a challenge. One study also reported unsuitable requirements of salary and irregular payments as reasons for leaving out these program by physicians.^[22] Similarly, a study of Shalileh and Mahdanian^[23] reported deficiency in payment system as a main problem for family physicians program. In our study, the physicians had not adequate information about the payment method and the amount of their salary, and it has disrupted the transparency of the payment system. It is necessary to adjust payment mechanisms and anticipate sufficient funding for family physician program.

The results of this study showed a deficiency of assessment mechanisms in payment programs. Other studies reported dysfunctional payment system in family physician program.^[24,25] A study by Kahn *et al.*^[9] reported some challenges regarding the lack of tools for assessing the payment system. They suggested the following solutions to overcome existing problems: providing appropriate measurements for evaluation of performance, implementation and evaluation of P4P system, and the necessity of conducting appropriate economic assessments. Performance measurement including data directly from practices needs to be collected across provinces and countries in a consistent manner to enable comparisons. According to the results, a well-defined mechanism for the assessment of performance with proper criteria will help to build better family physician program and improve health status.

Participants in this study mentioned to deficiency health information system and poor information infrastructure. Some studies have reported that this problem may be present in the family physician program.^[26-29] A study of Stream^[30] showed some barriers to the implementation of information system in the family physician including financial limitations, concerns on security, lack of training, and lack of skills of providers. They suggested the technical supports, free internet delivery, and pay per performance to overcome these barriers. However, some studies have reported that the use of information systems has been well implemented in the family physicians program. In these cases, they pointed to adequate infrastructure, financial support, and adequate training for both physicians and patients.^[31] Since having the health information record system does not guarantee accessibility of information and its success,^[16] it must be specified in family physicians program, physicians' expectations of the system and what is required to use the software. It is also necessary to provide credit, training, the need to commit to implementation and increase user knowledge.

The results of this study showed that physicians complained about the lack of authority in selecting team members and managing their subordinate groups. The level of authority of the family physician in teams can vary under different circumstances. Attitudes, culture, and differences between professions affect this authority and cohesive of team.^[32,33] Different perspectives on roles and the perception that family physicians have a leadership role on teams sometimes leave other team members feeling that their roles are secondary.^[32] Of course, there are programs to strengthen leadership which aims to strengthen physicians' leadership.^[34-36] Proper cooperation and two-way communication are very important in the success of treatment teams. The physician as a leader can provide the coordination between team members and increase the quality of health care.^[37] According to the results, it is recommended approaches to strengthen the leadership skills of physicians and enhancing the capacity for collaboration and communication networks across professional groups.

This study presents the in-depth views of participants in a realistic setting. Our study used practice-based interviewing resulted in participants being more comfortable to share their views than if they had been invited to an external setting. Among the limitations of this study is that it specifically focused on family physicians in one area. It is unclear how these results might extend to physicians in other states. Despite efforts to enhance the validity and credibility of our findings, our interpretation of data may remain subjective. Of course, we analyzed the data from the viewpoints of the three authors (as researchers) until we reached a consensus. Recruiting physicians for interviews was not easy due to the fact that they were usually busy. The researchers resolved this problem through making appointments with the participants and encouraging them to participate in the interviews.

Conclusion

In general, this study argued several serious challenges to the implementation of P4P system in Iran's family physician program. It is possible to implement this efficient and effective payment system through designing and implementing a number of interventions and their constant follow-up. According to the results of this study, it is essential the need to determine the need to determine of physicians' workload, as well as, the number of people who covered by every family physician. To improve management skills, it is necessary to provide trainings of management skills based on appropriate needs at the university and other in-service training. To promoting family physician program, extensive trainings on the importance role of family physician in the health care

should be provided to the people, family physicians, and organizations. In order to improve the payment system, it is needed to adjust payment mechanisms with a special look at primary health-care needs. Assessment and monitoring systems can be improved through devising scientific mechanisms and training skillful assessors. It is necessary to equip the information system with the necessary infrastructure, in addition, training of providers and removing the barriers. It is also necessary to determine the role of the family physician in health-care team and giving the necessary authority for managing their team.

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Conflicts of interest

There are no conflicts of interest.

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