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RESEARCH ARTICLE

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A qualitative study of challenges affecting the primary care system performance: Learning from Iran's experience

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Abstract

Background and Aims: Primary care and the use of a referral system are essential components of any health system. The aim of this study was to investigate and identify the challenges affecting the performance of the primary health-care system in Iran.

Methods: This qualitative study was carried out consisting of 14 interviews with experts and those familiar with the primary care system and its function. Purposive and snowball sampling was used to identify the samples. The recorded files were transcribed and entered into the MAXQDA-11 software to be analyzed. The conventional content analysis approach was used for data analysis.

Results: The findings of this study included 72 initial codes classified into 7 main themes and 18 subthemes. Seven main themes consist of governance, manpower, resources, financial management, services delivery, trans-sectional, and social and cultural. The greatest challenges for Iran's primary health care (PHC) system are governance and human resources problems.

Conclusion: Various dimensions of Iran's primary care system especially governance and human resources are facing several challenges that threaten its performance and efficiency. Policymakers and planners must address challenges fundamentally and do not get satisfied with superficial reforms that have short-term and soothing effects. In this regard, enhancing governance functioning can profoundly solve numerous challenges of Iran's primary care system. We also suggest the strengthening of intersectoral collaboration.

KEYWORDS

challenges, Iran, performance, primary care, primary health care

1 | INTRODUCTION

Health is a central element in the social, economic, political, and cultural development of societies.[1,2] One of the goals of sustainable development is definitely related to health: "Ensure healthy lives and promoting well-being for all at all ages."[3] If social, economic, and political activities are aligned, primary health care (PHC) will play a central role in achieving sustainable development. Thus, many of the challenges posed by sustainable development goals can be addressed through the PHC system.[4] PHC and the use of a referral system are

essential components of any health system.[5] PHC is a reliable framework for the global burden of chronic diseases and the elderly population.[6] Evidence suggests that in health systems with better PHC outcomes, there is better access to health services, comprehensiveness and continuity of health services, productivity, financial stability, satisfaction, and greater participation of the users.[7–10] However, first-line health services are not adequately addressed in health sector reform. PHC usually has poor performance and low status in health systems. Thus, the World Health Organization (WHO) has urged its members to prioritize the strengthening of PHC.[7,11]

Considering the fact that investment in the development and promotion of PHC can lead to the sustainable development of health systems, policymakers around the world are seeking to improve its performance.[12,13] So that improving performance is at the forefront of policymaking by governments and providers of health services in high-income countries.[14] In this regard, one of the essential activities related to improving PHC performance is to identify the challenges influencing performance. As identifying challenges allows the system to improve and modify its route based on the changing conditions,[15] which is the purpose of this study.

Once the importance of PHC was highlighted by the Declaration of Alma-Ata, Iran reformed its health system to meet the global goal of "Health for All by 2000." The Declaration of Alma-Ata was approved in 1984 by the Iranian government and parliament and led to the development of a health network. Over time, as the burden of diseases and the people's health needs changed, some improvements were done in PHC.[16] Implementation of PHC is one of the country's main strategies for achieving public health coverage and reducing the gap between health outcomes in rural and urban areas.[17] Iran provides PHC services within the framework of a health network system. The network is structured at three levels: national, provincial, and city levels. At the national level, the Ministry of Health is responsible for policymaking, planning, and financing. At the provincial level, state universities of medical sciences plan and oversee the services. Each province has developed a health network at the county level. The network consists of two urban and rural centers managed by the city health center.

In the urban areas, comprehensive urban health centers and health posts are responsible for providing health services to the people directly, and in the rural areas, comprehensive rural health centers and health-houses do the job.[15] Health-house is the smallest unit of PHC system in rural areas that cover 1200 people.[18] Since 2005, the Family Physician Program has been implemented as a strategic intervention to develop the health system, increase access to and productivity of health care, and reduce inequalities in rural areas and less affluent (poor) cities.[13,19] Besides, the urban family physician program is currently being implemented as a pilot project in Fars and Mazandaran provinces.[13,20] In terms of financing, PHC in Iran is mainly funded and provided by the government.[21] All services of PHC in Iran are free of charge and accessible to everyone.[18,22] So that PHC coverage in rural areas is reported to be more than 95%.[23]

In Iran, although the strategy of providing PHC has been taken into account and has had considerable outcomes, the performance of the health service providing system needs to be improved. In this regard, there are some challenges and problems that have prevented the proper and ideal functioning of the PHC system and have not received sufficient attention so far. Therefore, this study was conducted to identify the challenges affecting the performance of the PHC system in Iran. The findings of this study can help to sensitize health policymakers and improve the management of PHC performance in Iran.

2 | METHODS

The aim of this qualitative phenomenological study[24] was to investigate the challenges affecting the performance of the PHC system in Iran. This study was conducted from November 2019 to June 2020 at Kerman University of Medical Sciences. The participants in this study were experts that those familiar with the PHC system and its function. The interviewees were selected based on the following inclusion criteria: occupation in health departments of universities of medical sciences, history of presence in managerial and policymaking positions related to PHC, being a health expert at the national level or in medical universities, being a PHC provider, and having a research project or a published article related to the study subject. At least 3 years of experience were required for these criteria. Thus, purposive and snowball sampling[25] were used to identify the samples. We first purposefully identified some of the most well-known specialists in the country. At the end of the interview with these people, we were asked to introduce other experts. Then, if they had inclusion criteria and were willing to participate, they were interviewed.

The interview schedule consisted of two sections: demographic characteristics and interview questions. Demographic characteristics included the variables such as age, gender, job position, and work experience in the field of PHC. The initial interview questions were general and open-ended based on the functions of the health system (stewardship, resources, financing, and service delivery). The interviews were semistructured, so in addition to the general questions in the interview schedule, more detailed questions were asked during the interview based on the content presented by the interviewee.

First, the eligible people were sent an invitation including the research objective and methods. A total of 20 invitations were sent in person, by email, and by calling. Three people refused due to their busy schedules. One person did not respond to the invitation although a reminder was sent twice. Informed consent was then obtained from those who were willing to participate in the study, based on which the participants could withdraw at any time and their information would be used solely for the present study. The interviews were recorded with the participants' consent. Two sound recorders were used for precaution. Data

TABLE 1 Demographic characteristics of participants

Level	Current job position	Activity in PHC (year)	Gender	Age (year)
Macro	Ministry of Health	12	Male	55
		8	Male	47
Middle	Faculty Members and researchers	6	Female	38
		8	Female	39
		9	Male	44
		7	Male	38
	Vice Chancellor for Health of Universities	13	Male	49
		15	Female	47
		9	Male	42
		5	Male	51
		16	Male	54
		8	Female	39
Micro	Health Center Managers	5	Male	37
		4	Male	35

Abbreviation: PHC, primary health care.

were collected in the Persian language. Interviews were conducted in person. The average time of interviews was 70 min. The data were saturated [25] with 14 interviews (Table 1).

In this study, the conventional content analysis approach[25] was used for data analysis based on Graneheim and Lundman's method.[26] The data were analyzed inductively. First, the recorded files of the interviews were transcribed verbatim and reviewed several times, and then entered into the MAXQDA-11 software. Second, the total interviews were considered as analysis units, and sentences were considered as meaning units. Third, the units of meaning were summarized into condensed meaningful units and then primary codes were acquired. Fourth, the primary codes were reread and compared with each other several times and were grouped into subthemes. Ultimately, based on the similarity of subthemes the main themes of the study were obtained.

The Lincoln and Guba four-dimension criteria including credibility, transferability, dependability, and confirmability were used to ensure the rigor and quality of the study.[25,27] To ensure the credibility of the research, the research process was validated by four experts familiar with qualitative studies (nonauthors). The coding process was also performed by two authors. The participation of the research team and some participants regarding the process of conducting the interviews, analyzing them, and the extracted data were used as well. And the considering diversity in sample selection (organizational level, job position, activity in PHC, age, and gender) determined the credibility of the research. To ensure transferability, two experts out of the study who had the same status as those participating in the study were consulted about the research findings. Also, a sample of nonhomogeneous interviewees was used as well. To ensure dependability, transcribed verbatim interviews were cross-checked by the participants. Details of the research stages and interviews were also recorded. Furthermore, a detailed description of the research process was prepared and reported. All details, including the study process and the data collection method, were carefully recorded to ensure the confirmability of the research findings. Raw data and all notes, documents, and recordings were also retained for possible future reviews.

3 | RESULTS

The findings of this study illustrate a wide range of challenges affecting the performance of the PHC system in Iran. They included 72 primary codes classified into 7 main themes and 18 subthemes (Figure 1, Supporting Information Table). The main themes identified are presented in the following.

3.1 | Governance

The results showed that one of the most important domains affecting the performance of the PHC system is its governance. In this regard, 28 challenges were identified. Participants discussed planning, performance monitoring and evaluating, coordination, organization, and decision making. Participants stated that planning in Iran's PHC system faces challenges of inconsistency, instability, lack of long-term planning, precipitancy, lack of stakeholder participation, concentration, and weakness in the planning and implementation of the family physician program. "Unfortunately, we sometimes design and run some programs that conflict with other ones" (P3).

Some participants commented on challenges about monitoring and evaluating in Iran's PHC system including; weakness in health monitoring and evaluation system, inadequacy and lack of continuity of supervision, excessive emphasis on electronic controls, lack of self-evaluation culture, the absence of a native evaluation program, less emphasis on outcome indicators and so on. "Evaluations have become less than they were in the past, and they aren't continuous and profound" (P4). Or "Performance evaluation tools aren't localized and somehow blindly imitate developed countries' performance evaluation programs" (P9).

All participants discussed the concept of coordination in Iran's PHC system. They believed that all organizations must participate in public health issues. "It's not the time to just vaccinate and provide health education as in the past. There has to be an SDH approach. We need to have stewardship in the health system and increase the participation of organizations" (P11). "Agriculture Jihad, municipalities, Directorate-General for Sports and Youth, Law Enforcement Force in regard to accidents, and Ministry of Roads and Urban Development must be involved and work on PHC and preventions" (P6).

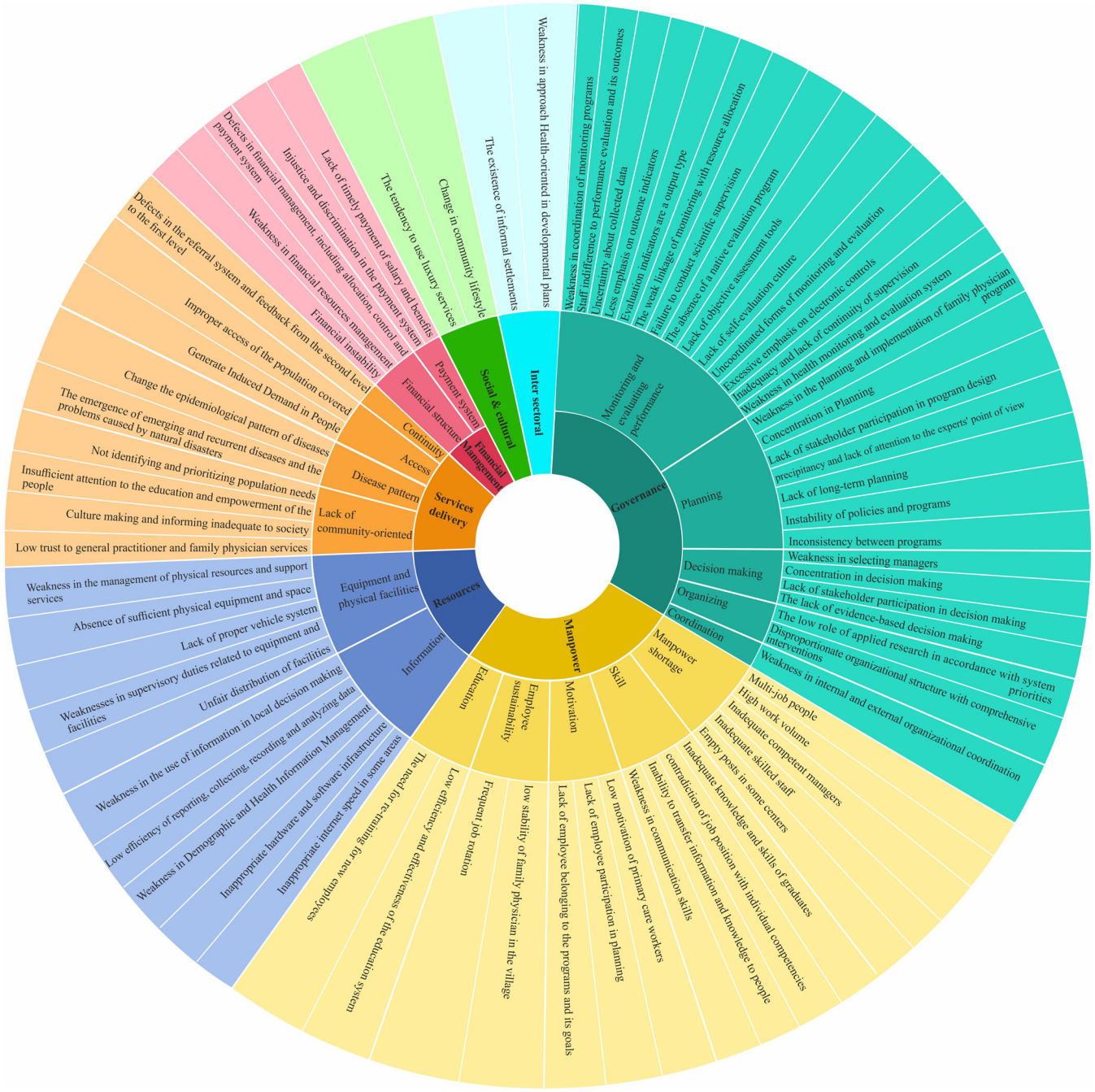

FIGURE 1 The challenges affecting the performance of the PHC system in Iran. PHC, primary health care

Some participants also claimed that the organizing of Iran's PHC is traditional and should be reconsidered. "In recent years, the pattern of diseases has changed from contagious to noncontagious, but the organizational structure and its related interventions have not been properly modified" (P3).

Some other participants stated that decision-making in Iran's PHC system is suffered from concentration, lack of evidence-based, and lack of stakeholder participation. Also, the selection of PHC managers is poor. "There is not much partnership, consultation, and agreement among managers and policymakers when making decisions" (P10).

3.2 | Service delivery

Based on the results, nine challenges were related to service delivery, which was categorized into four concepts of service continuity, accessibility, disease patterns, and community-based services. A challenge was related to the continuity of Iran's PHC services. Participants reported defects in the referral system and feedback from the second level to the first level. "The referral system is not properly adhered to. For example, when a patient is referred to the second level, the level does not provide feedback to the first one

(family physician). Therefore, service delivery remains incomplete and not sustained" (P8).

Another challenge was regarding the accessibility of Iran's PHC services. Participants discussed that the population access is improper and providers generate induced demand in people. A participant explained that: "In some areas, we were not able to provide access as properly as it should be. Some entities might have been established but we are not doing well due to equipment fatigue and lack of skilled workforce" (P5). And another noted that "Service providers restrict the access of other community members by inducing demands and providing unnecessary services" (P12).

Participants argued that Iran's PHC services are noncommunity-based. They emphasized not identifying and prioritizing population needs, insufficient attention to the education and empowerment of the people, culture-making and informing inadequate to society, and low trust in general practitioner and family physician services. "Most of our services are usually based on a nationwide written plan and we do not pay much attention to the needs and priorities of different regions. Although we have made some progress in educating people recently, we are still far from ideals" (P1). Another participant believed that "distrust of people in first-level services and family physicians was a serious problem that needed to be considered more seriously" (P13).

Also, participants emphasized that need to pay attention to changing the epidemiological pattern of diseases in providing Iran's PHC services.

3.3 | Resources

The findings show that Iran's PHC system faces resources challenges that were classified into physical equipment and information. Some of the participants believed that a neglected issue is the equipment and physical facilities of Iran's PHC system. Weakness in the management of physical resources and support services, absence of sufficient physical equipment and space, absence of sufficient physical equipment and space, weaknesses in supervisory duties related to equipment and facilities, and unfair distribution of facilities were mentioned as challenges of equipment and physical facilities. "In some areas, our equipment is old and outdated" (P5). "Most of the existing vehicles are depreciated, or do not exist in some areas. That's why doctors or midwives can't serve remote and hard-to-reach areas" (P8, P14).

Another challenge related to resources raised is information technology (IT). Participants discussed that weakness in the use of data recorded in health information system (HIS) for local decision making, low efficiency of reporting, collecting, recording, and analyzing data of HIS, weakness in demographic and health information management, inappropriate hardware and software infrastructure, and inappropriate internet speed in some areas are challenges of IT in Iran's PHC system. "We don't use data in our managerial decisions and usually do it based on our tastes" (P7). "In some areas, there is inadequate Internet speed, which doesn't allow timely data collection and analysis" (P2).

3.4 | Financial management

According to the participants, there were also challenges in the field of financial management, which were categorized into two groups of payment system and financial structure. Participants believed that the financial structure of Iran's PHC system faces challenges of defects in the financial management process (allocation, control, and payment), weakness in financial resources management, and financial instability. Also, some participants stated that the lack of timely payment of salary and benefits and injustice and discrimination are challenges of payment system in Iran's PHC system. "The problem that greatly impacts performance is that credits are not allocated on time and are inadequate when allocated" (P11). "Sometimes we can't pay staff salaries in a timely manner and this negatively impacts their motivation and performance" (P6).

3.5 | Human resources

One of the major challenges for the PHC system in Iran is human resources problems. The participants stated 16 challenges that were reflected in five concepts: skill, motivation, training, staffing shortages, and staff sustainability and stability.

Participants highlighted the weakness in skills of Iran's PHC staff. They argue that weakness in communication skills, inability to transfer information and knowledge to people, the contradiction of job position with individual competencies, and inadequate knowledge and skills of new graduates are major skill challenges of HR in Iran's PHC system. "We used to introduce health workers with the literacy of grade 5 because they were only asked to do vaccinations and mother and child care. But now, with the recent explosion of information and high community literacy, health workers with lower education than that of clients can't make proper relationships with them and this causes a challenge" (P12).

Also, Participants emphasized the lack of meritocracy in Iran's PHC system. "Unfortunately we don't have a meritocracy in human resources. Some people become managers through nepotism" (P1, P4).

According to the participants, employee lack of motivation is a serious problem. They discussed that lack of employees belonging to the programs and their goals, lack of employee participation in planning, and low motivation of primary care workers are some of the motivational problems of Iran's PHC employees. "As the staff is not consulted in planning, they don't feel belonged or motivated" (P6). "People's failure to consider preventive and educational activities in the PHC system causes the staff to lose motivation and have reduced performance" (P8).

The shortage of human resources is another challenge facing Iran's PHC system. Participants pointed out empty posts in some centers, inadequately skilled staff, inadequate competent managers, high work volume, and multi-job people. "In some places, we have a shortage of human resources. For example, we set up health centers in villages, but we don't have doctors or dentists to work there" (P8).

Employee instability is another challenge of Iran's PHC system. Participants emphasized frequent job rotation and low stability of family physicians in the village. "We have problems with retaining doctors in villages or small towns due to the lack of adequate amenities in the villages. That makes it a constant concern about replacing the staff" (P7).

3.6 | Trans-sectional

Some participants believed that parts of the challenges affecting the performance of PHC were inter-sectoral and out of the health system. "In national development plans, the health-centered approach is not much considered" (P11). "You won't find a department that doesn't play a role in health. If I produce some food with reduced salt, I'll contribute to the health of the community. By building a park where people can exercise, bike and do other things, the municipality will help the community health: their liveliness as well as mental and physical health" (P2).

Participants stated another challenge that threatens Iran's PHC system is the existence and growth of informal settlements in urban areas. "Unfortunately, we're faced with the phenomenon of suburban and informal settlements. This issue must be resolved outside the health field, but it affects the health and well-being of the community" (P5).

3.7 | Social and cultural

Some believed that social and cultural issues also affected the performance of Iran's PHC. According to the participants, the most important social issue that affected PHC performance was lifestyles changes including inactivity, diet, and tobacco use.

"People don't observe many precautions due to the changes in their lifestyle, such as increased salt, sweets and fast food consumption" (P5). "Despite preventative education and advice in PHC services, we're seeing that tobacco use has become a fun way to spend young people's leisure time and it's on the rise" (P2).

Also, participants stated that the taste and demand of the society have changed towards luxury and advanced medical services. And these changes will affect the functioning of Iran's PHC system.

"People's expectations have changed. They used to accept a health worker easily, but now everybody demands for specialized and subspecialized services" (P11). "Many people no longer consider first-level services. You see, with the exception of essential services for some groups such as pregnant women or newborn vaccinations, few people refer to comprehensive health centers!! On the contrary, see specialist doctors' offices where patients are lined up" (P13).

4 | DISCUSSION

The results showed that numerous challenges affected the performance of the PHC system in Iran. The majority of challenges were related to governance and human resources.

The findings of this study showed that the governance dimension of the PHC system in Iran was faced with challenges in planning, monitoring, and evaluating performance, coordination, organizing, and decision making. This finding is similar to previous studies.[15,16,28] The WHO also identified that the major governance problems in developing countries' health systems were the lack of stakeholder involvement in policymaking, inadequate in-progress programs and insufficient monitoring of them, and lack of attention to service providers' behaviors.[15] In low- and middle-income countries (LMICs), such as Iran, less attention has been paid to the analysis and evaluation of health system governance than other key components of the health system, so the limited number of surveys focused mainly on the role of the government.[29] But despite the potentials of other individuals for governance, efforts to understand their role in the governance of PHC have often been overlooked.[30,31]

Governance not only has a direct impact on health outcomes but also mediates the effects of public health expenditures on health outcomes.[32] Therefore, if system governance is weak, budget-allocation to the health sector to improve health outcomes might be inadequate and inefficient.[33] So, even if health expenditures increase with inadequate allocation and poor management, population health may deteriorate.[34] As a result, having effective leadership and governance in the health system, especially PHC, seems essential to achieving great health goals.[35]

Regarding the government's failure to provide PHC in LMICs, Abimbola et al. proposed a multilevel governance model.[36] In their opinion, using it as a thinking guide in the analysis of PHC governance can improve the understanding, evaluation, and design of people-based PHC systems in LMICs.[36] In this regard, awareness and proper use of information is also one of the ways to improve governance performance, leading to the identification of the defects and monitoring the changes.[37] However, it should be noted that health system governance is difficult due to the presence of a wide range of agents with complex roles and relationships.[36] Thus, although the complexity of the health system governance has made it difficult to address its challenges and improve its performance, dealing with the challenges seems essential due to its remarkable effect of it on the performance of other components of the health system.

Another challenge affecting the performance of Iran's PHC system is the human resources challenges (skills, motivation, education, human force shortages, and staff instability). Lack of skills is the most important health-related challenge that can affect the performance of the PHC system, because skills work as a bridge connecting knowledge and practice, leading to results.[38] Nekui Moghadam et al. recommended improving and modifying academic and in-service training and educational content to overcome skill shortages in PHC staff.[16]

The study found that the lack of participation in planning and decision-making reduced the motivation of PHC staff to provide services to the community. O'Neil considered weak incentives of the health-care providers as one of the major human resource challenges in different countries around the world.[39] According to Vosough et al., discrimination and unfair payments, the lack of an encouraging

system, high workload, and the lack of participation in policymaking led to a decrease in the motivation of health staff.[40] Human resources shortage and its negative impact on PHC system performance was another finding of this study. This finding is similar to previous studies.[15,16,23,41,42] According to the WHO, one of the major challenges for health-care organizations is access to the right number and composition of health staff.[43] In general, the shortage and unfair distribution of health personnel are one of the common problems in LMICs.[44] In a study by Adepoju et al. in southwest Nigeria, the shortage of human resources and lack of staff motivation were identified as the main challenges of providing health services in PHC facilities.[45] Despite the challenge of human resources shortage, the existing health-care staff are also experiencing instability. Evidence indicates that physicians and health professionals do not stay long in different regions of Iran, and the majority of health staff leave the health system to continue their education.[41]

In general, as the staff is considered the most important resource in the PHC system, their need and concerns must be addressed in order for their performance and service-providing quality to improve. As poor education and lack of knowledge and skills lead to poor performance of the health-care staff, most interventions to improve their performance focus on education, training, and evidence-based guidelines. However, there is no evidence to suggest which approach is most effective in improving the performance and quality of health-care staff.[46]

Providing health services is the main function of any health system. As the participants stated, the main challenges in the field of service delivery that affected the performance of the PHC system included continuity of services, accessibility, changing patterns of diseases, and lack of community-based services. This finding is similar to previous studies.[15,16,28,47,48] Mehrolhassani et al. found that accessibility and continuity were among the challenges in the process of providing PHC services.[15] According to the participants, one of the challenges that caused problems to PHC services was induced demand. They believed that induced demand would cause the people who were in real need of services to get deprived of the services. Keyvanara et al. also stated that one of the consequences of induced demand was the barriers to public access to health services, including deprivation of health services and ignoring the basic ones.[49]

Also, some of the challenges indicated that Iran's PHC services are noncommunity-based. However, the aim of community-based PHC is to provide first-contact health services to ensure the continuity of care, facilitate movement throughout the system, and improve system integration.[50] As the ultimate goal of health organizations is to meet the needs of communities, health services must be needs-based and community-participated. It would be difficult for authorities to succeed in many affairs without people's participation and involvement. Hence, using collaborative processes to deliver community-based services is essential.

Lafortune et al. considered poor relationships between patients and service providers, challenges of the movement in a complicated health-care system, barriers to information exchange, lack of coherence in service delivery, incompatible care follow-up, and policy and budget constraints as the barriers to improving community-based PHC. They recommended developing and integrating health-care teams, supporting system navigation, and developing standardized information systems and care pathways to improve the system.[51] In general, given that enhancing and improving performance in service delivery is critical to achieving health-related Millennium Development Goals (MDGs),[52] addressing and resolving the challenges of PHC service delivery can contribute to achieving the MDGs.

Like any other system, a PHC system needs resources to function better and continue to provide services. The results showed that some challenges in physical and information resources affected the performance of Iran's PHC system. Previous studies have also addressed these challenges.[16,17,53,54] Having active facilities and equipment is so important that efficient human resources can do nothing without them.[55] Therefore, it is necessary to provide essential facilities and equipment along with having and strengthening human resources.

Another important resource in the field of health is information resources. The participants stated that Iran's PHC system in the field of IT has faced challenges that have a negative impact on its performance. Proper provision and utilization of a comprehensive HIS can have several potential benefits to health care in terms of financial benefits, promotion of health system productivity, and improvement of health-care quality.[56–58] In addition, establishing and organizing a health information management system help to make decisions and improve the organization's performance by setting appropriate indicators.[59] It should also be noted that having an appropriate IT system will be helpful in the process of evaluating and providing the data needed to evaluate the organization's performance.

Thus, considering the challenges identified in the area of IT, it is recommended to strengthen the organizational culture of using information in managerial decisions, remove infrastructural barriers and improve demographic and health information management to improve the performance of the PHC system. Availability of accurate and timely information and understanding how to use it in the health system are critical components for making informed decisions.[60] A HIS will be efficient and effective if there is an integration between the workforce, facilities and equipment, and the processes.[17] So, all resources should be appropriately provided and arranged. For example, if physical facilities and equipment are provided but trained and skillful human resources are lacking, it will not be effective and efficient.

The results indicated that in the field of financial management, the challenges related to the payment system and financial structure affected the performance of Iran's PHC system. This result is similar to previous studies.[15,16,48,61] The financial system and the costs of providing health services make the infrastructure for the efficiency of health systems,[62] so that Santos et al. introduced the financial dimension as the most influential dimension of the performance of public health systems.[63] Thus, these challenges will have a devastating impact on the performance of the PHC system. As a result, the

financial system should be evaluated and improved regularly and effectively using credible indicators.

The results showed that there were some trans-sectional factors affecting the performance of the PHC system. For instance, the participants believed that the health-oriented approach was poor in the country's developmental and large-scale programs. In addition, the existence of informal settlements around cities was a major trans-sectional issue affecting the health system, because the health of the inhabitants of these settlements was at risk due to overcrowding and poor access to potable water and sanitation.[64] Hence, it was a disruptive factor for the PHC system and its performance, which required effort and intersectional collaboration. None of the previous similar studies have addressed these challenges.

In this regard, the health in all policies (HiAP) approach was introduced in 2013 to engage different sectors in health-related issues. This approach helps to strengthen policymakers' accountability for health impacts at all policy-making levels. One of the six principles of this approach is intersectoral collaboration at different levels of government in support of the policies promoting health, justice, and sustainability. In this approach, intersectoral collaboration is of particular importance because it is assumed to be a prerequisite for health development and implementation in all policies.[65–67] Although intersectoral collaboration is of particular importance in the implementation of PHC programs and is considered as one of the most useful strategies for achieving the MDGs quickly, this strategy is not common in developing countries such as Iran.[68]

Many of the challenges that hinder the success of PHC are due to the weaknesses in strategic inputs such as intersectoral collaboration.[68,69] Therefore, given that the most important social determinants of health are outside the health sector, collaboration between this sector and other areas may provide a supportive context for marginalized populations and increase their access to the services.[70] For this reason, intersectoral collaboration has been recognized as an effective way for PHC services to address the social determinants.[71] From the WHO's perspective, intersectoral measures to achieve health outcomes are more effective, efficient, and sustainable than those of the health sector alone.[68] Overall, it is suggested that taking into account the health approach in all policies and strengthening intersectoral collaboration in developing countries, especially Iran, will help improve the performance and efficiency of the PHC system.

According to the study results, the behaviors of the members of a community could also affect the performance of the PHC system. The participants believed that the two social and cultural issues including the change in people's lifestyle and the desire to use luxury and advanced services caused problems to PHC system performance. Rahimi et al. also identified that people's dietary patterns and increased urbanization in Iran were among the important social trends affecting the country's health system. They believed that the Iranians' dietary pattern was going toward increased metabolic diseases, insulin resistance, and obesity.[64] International evidence also confirms the people's dietary patterns going toward the Western diets, especially the consumption of sweet drinks and fast foods.[72] Rahimi et al. emphasized behavioral changes to modify social and cultural misconducts affecting the health system and suggested the social marketing approach.[64]

In the past, Iran's PHC system has several reforms such as family physician and rural insurance, and the pilot implementation of the urban family physician.[73] Latest reform was the health transformation plan that include 15 national plans and 10 supportive projects.[74] All of these reforms have been made to improve PHC system performance. But the results of this study showed that it faces many challenges. Therefore, new strategies are necessary for continuous improvement of its performance. The results can help design and implement future reforms.

4.1 | Applications, suggestions, limitations, and the specific strengths of this study

The most important application of this study is to help managers and planners in policymaking, planning, and reforming to address the challenges and improve the performance of the PHC system in Iran. Other researchers are also recommended to examine the priority of these challenges based on scientific methods because prioritizing them will help health managers to address the most important challenges with regard to the limited resources.

One limitation of this study is that it only addressed the challenges that affected performance and did not examine the performance strengths. Another limitation is that the results of this study were obtained from the viewpoints of some experts. However, it was tried to use the experts at various positions and the interviews continued until the data saturation was achieved. The last limitation is that this study did not identify the importance and priority of the challenges to each other.

One strength of this study is the use of experts' opinions at various management levels including senior, middle, and operational managers. Besides, the challenges extracted from the individual interviews were provided to all the interviewees and confirmed by them. This strengthened the validity and reliability of the study data.

5 | CONCLUSION

Various dimensions of Iran's PHC system are facing several challenges that threaten its performance and efficiency. It seems that if there is a will to tackle the challenges, policymakers and planners must address them fundamentally and do not get satisfied with superficial reforms that have short-term and soothing effects. To this end, enhancing governance functioning can profoundly solve numerous challenges of the system. It should be noted, however, that addressing the challenges and improving the performance cannot be done by the health system alone and requires a national determination at the macro levels of governance, government, and organizational culture-developing. This important issue requires the establishment and strengthening of intersectoral collaboration, and other departments such as the education department, municipalities,

roads, and urban development department, and nongovernment organizations. Need to do their duties in relation to public health and PHC. The results of the study can be useful for further research to address the challenges and improve the performance of Iran's PHC system.

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CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

ETHICS STATEMENT

Although this study did not utilize any human/animal subjects, the design and protocol were approved by the ethical committee of Kerman University of Medical Sciences on the 2018-11-12 date. The ethics approval code is IR. KMU. REC.1397.281.

AUTHOR CONTRIBUTIONS

Formal analysis: Hamed Rahimi, Somayeh Noorihekmat. Investigation: Hamed Rahimi. *Methodology*: Ali Akbar Haghdoost, Hamed Rahimi. *Project administration*: Hamed Rahimi. *Funding acquisition*: Somayeh Noorihekmat. *Supervision*: Somayeh Noorihekmat. *Validation*: Somayeh Noorihekmat, Ali Akbar Haghdoost. *Writing-original draft*: Hamed Rahimi. *Writing-review and editing*: Hamed Rahimi, Somayeh Noorihekmat, Ali Akbar Haghdoost. All authors have read and approved the final version of the manuscript. Hamed Rahimi has full access to all data in this study and takes complete responsibility for the integrity of the data and the accuracy of the data analysis.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are availability from the corresponding author upon reasonable request.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

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