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Analysis of the Resident Physician Program from Theory to Practice from the Perspective of Service Providers: A Qualitative Study

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Abstract

Background: To increase the accountability of hospitals and ensure that patients receive appropriate treatment at any time of the day, resident physicians perform the necessary diagnostic and therapeutic procedures during non-office hours. This study aimed to analyze the resident physician program from theory to practice.

Methods: The present study was a qualitative one. The participants included 27 experts selected from university and hospital managers as well as specialist doctors. Data were collected through semi-structured interviews based on purposive and snowball sampling and the process of data collection continued until data saturation. Then, the interviews were transcribed, meaning units were determined, data were coded, the identified codes were categorized based on similarities and differences, and the themes were identified and finally analyzed and interpreted using the content analysis method.

Results: In the present study, 4 main themes, 11 subthemes, and 46 components were identified using framework analysis. The themes related to the goals and outcomes of the program, the accountability of the centers, and the indicators had the same results in theory and practice, and this program improved them. However, regarding financing, monitoring, and implementing the program, as well as payments, there was a wide gap between theory and practice.

Conclusion: Considering the opportunities, threats, strengths, and weaknesses of the resident physician program, the results of this study can propose a comprehensive model based on the perception of health managers and experts involved in the implementation of the program. Therefore, it is suggested to consider local conditions and patterns in prioritizing the criteria for fields of study.

Keywords: Health planning, Health care reform, Physicians, Physician incentive plans, Qualitative research

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Introduction

Health is an invaluable asset whose maintenance and improvement should be regarded as one of the most important human endeavors (1). Accordingly, individuals give a high priority to health (2). In any health system, patients expect to receive their desired services at the right time (3). The main responsibility of the health system is to improve the health status of individuals and respond to their needs and those of the society in general. These needs are changing constantly according to the economic, social, and political conditions (4). Responding to these changes was the main reason that led to the development of the health system reform plan in Iran (5). Modification of the health system is one of the most useful ways to achieve high efficiency, equality, and effectiveness in the health sector (6). Countries with different experiences had similar goals (7). Development of clinical medicine requires increasing efficiency and effective group work (8). The health system development plan was on the agenda in May 2014. The plan consisted of 7 guidelines and 3 procedures including financially protecting people, providing accessible health services, and upgrading service quality as a top priority (9). One of these guidelines requires physicians to attend the resident physician program in hospitals affiliated with the Ministry of Health and Medical Education (10). The purpose of this program is to provide timely and 24-hour medical services, reach diagnosis in the

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shortest possible time as made by specialists, perform surgery and treatment procedures timely, and increase patient satisfaction (11). In fact, it is the responsibility of the government to establish healthcare systems and provide timely and sufficient healthcare vital for human health (12). Shortage of specialists is among the challenges facing health system when providing timely services to the patients (13). According to the World Health Organization (WHO), one-third of the beds in hospitals are occupied due to events, and the first place to hospitalize those patients is the emergency ward (14). For the patients visiting the emergency ward, minutes and seconds are of high importance since 75%-85% of deaths occur shortly after the event and 20 minutes after the onset of the event (15). Thus, the main responsibility of the staff of the emergency ward is to provide the best healthcare in the shortest possible time (16). The lengthier the visit, the lower the quality of the healthcare, and the more undesired results (17). In contrast, with proper care and timely visit, the doctor can save the patient from death and other serious problems (15). Khayeri et al showed there is a significant relationship between the number of doctors, resident attendance based on the monthly program, performance assessment reports, and the level of patient satisfaction (18). Goodarzi et al indicated that in resident physician programs, the active presence of resident physicians based on the schedule, facilities, and accommodation conditions in hospitals were satisfactory (19). According to the experts, there are pros and cons to planning and implementing the program, and further support and criticism (20) as well as identification of the opportunities and challenges (21) are required. Most of the studies on health system reform plan have been conducted using a quantitative approach and the present study as a qualitative research, depicts the challenges of this plan based on the experiences of participants and people involved in health system reform. This can be an innovative aspect and one of the strengths of this study. Moreover, due to the limited number of studies on the resident physician program in Iran, it is necessary to pay attention to the opinions of the service providers on implementation of the this program and the emerging challenges. Thus, the present study aims to analyze the resident physician program from theory to practice from the perspective of service providers. The findings of this study would help the senior managers and decision-makers in the health system in Iran to identify the shortcomings and weaknesses of providing health services in hospitals and pave the way to make proper decisions for improving these services. If the conditions above are realized, reduction of costs and improvement of health and treatment services are some possible achievements.

Methods

This study employed a qualitative approach based on content analysis as a systematic method to describe a phenomenon in depth. It is an appropriate way to investigate individuals' experiences of a particular phenomenon and is more useful when the theory and studies related to the phenomenon under study are limited. The participants of this study were the experienced ones who were knowledgeable about the health system development plans and resident physician program. The statistical population included 27 health system managers and specialist physicians who were selected using purposive and snowball sampling. Data collection continued until data saturation. The inclusion criterion of this study was the participants' awareness of the resident physician program. The participants were divided into two managers and physicians groups. The managers group was further categorized into policymakers, planning managers, and implementation managers. The planning managers group included university managers and the implementation managers group included heads of the treatment and educational centers and hospitals. Specialist doctors were included in the study if they were willing to participate and share their experiences. Semi-structured in-depth interviews were conducted to explore the experiences of the participants. To this end, a form including 10 general questions to clarify the purpose of the study was prepared. The questions were designed based on the available literature and using the opinions of the managers and experts. In the next phase, to determine the validity of the form and ensure that the questions are significant from the respondents' perspective, the researcher interviewed two experienced managers who knew about the plan and the questions were revised and modified according to their suggestions. The time of the interview was decided in advance after talking to the interviewees by phone or in person. The researcher explained the purpose of the interviews and individuals were informed that their answers would be kept confidential and they could leave the study whenever they wished.

The interviews started with an open and general question "What do you think of the resident physician program?" and continued with questions on pros and cons of the program, continuation of the program, opportunities and threats ahead of the program, the methods to implement the program, and the factors contributing to implementing the program correctly. Then, according to the answers provided by the respondents, the following questions were asked to clarify the concept: "Would you please explain more?", "What do you mean by that?" and "Can you give me a more concrete example so that I can understand you better?". Each interview lasted about 45 minutes with a standard deviation of 10 minutes. A quiet and peaceful place was chosen for the interview to

escape the noise. Graneheim and Lundman's qualitative approach was used for content analysis (22). All interviews were conducted by the main researcher. To prevent probable problems during the interviews, the interview sessions were recorded with two cassette players, and the interviews were transcribed immediately to know the time of data saturation and increase precision. Then, to immerse in the data, the researcher listened carefully to the interview transcripts several times on average for 90 minutes. The transcripts were reviewed several times, revised, codified, and analyzed. The data were analyzed as per the following procedures:

- Data preparation (transcribing or typing the interview texts)
- Definition of unit (determining which words, sentences, or paragraphs extracted from the participants' opinions on the resident physician program are meaning units)
- Codifying the text (turning the meaning units into labels, summarizing as titles indicating the chosen meaning unit)
- Reviewing the codes (reviewing and comparing the codes in respect of similarities and differences and merging similar ones)
- Categorizing and expanding the classes according to similarities and symmetries
- Reviewing and comparing the classes using the data to ensure the code stability
- Identifying the themes through contemplating deeply and precisely as well as comparing the classes with one another
- Reporting the findings

In this study, the criteria proposed by Guba and Lincoln to increase the accuracy and robustness of the study were utilized (23). To ensure the validity and reliability of the qualitative data, the researcher was involved in the study and the data were checked by the participants. In fact, the participants observed parts of the interview text with initial codes. Then, the homogeneity of data taken by the researcher was compared with the participants' ideas. Besides, an outsider observer knowledgeable about qualitative research controlled the data by reading and confirming parts of the interview texts with related codes and emerged classes.

Results

A total of 27 individuals informed of the resident physician program participated in this study. The demographic characteristics of the participants are presented in Table 1. The analysis of the opinions of the participants led to the identification of 80 codes. These codes were reviewed numerous times and then summarized and classified based on their similarity and symmetry. The internal meaning was identified via analysis and comparison in four main themes including *implementing the program*, *monitoring the program*, *resident physician's performance*, and *payments of the program*. Using content analysis, 11 subthemes and 46 components were identified and examined both in theory and practice according to the guidelines in Table 2.

Implementing the program

One of the themes derived from the analysis of interview data was the factors related to the *implementation of the program*. This theme consisted of two classes as *obligations and commitments* and *goals and outcomes of the program*. The participants believed that more attention should be paid to the implementation of the program. One of the participants said, "*The implementation of this program has increased the expectations from specialist physicians to respond to hospitals. Thus, if the program does not continue or delays in payment, the adverse effects of the past will be repeated*" (Participant 12).

Obligations and commitments

The participants believed that more attention should be paid to the implementation of the program. One of the

Table 1. Demographic characteristics of the study participants (N = 27)

Characteristics	No.	%
Age (year)		
40-45	8	29.7
46-50	13	48.1
>50	6	22.2
Marital status		
Married	18	66.6
Single	6	22.2
Divorced	3	11.1
Job status		
Permanent employment	17	63
Temporary-to-permanent employment	10	37
Contractual employment	0	0

Table 2. The main themes and subthemes of the resident physician program

Main themes	Subthemes
Implementing the program	Obligations and commitments
	Goals and outcomes of the program
Monitoring the program	Monitoring levels
	Monitoring steps and timing
	Disciplinary measures
Resident physician's performance	Evaluating the performance of resident physicians
	Presence of resident physicians
	Accommodation for resident physicians
Payments of the program	Resident physician's wage
	Payment time
	Financing

participants stated, "*According to the instructions of all general centers, more than 64 beds are needed to have resident physicians in specialized courses, but full monthly coverage of the desired fields is not possible, and there is not enough specialized human resources to run the program*" (Participant 1). Another participant believed, "*In practice, the presence of the resident physicians in one field demotes the on-call program*" (Participant 2).

Goals and outcomes of the program

All participants believed that the implementation of the program led to relatively good results. One of the participants believed, "*According to the instructions, resident physician program leads to 24-hour accountability of the centers and providing timely health services. In practice, this program leads to more and better accountability of medical centers, reduction in number of visits to private hospitals, and acceleration of the provision of emergency services with the presence of the resident physicians*" (Participant 9).

Monitoring the program

One of the themes resulted from the analysis of interview data was the factors related to monitoring the implementation of the program. This theme consisted of three classes as *monitoring levels*, *monitoring steps and timing*, and *disciplinary measures*. All participants emphasized the importance of monitoring and its role in the effective implementation of the program. One of the participants said, "*Despite paying attention to monitoring in the instructions of the resident physician program and specifying a solution to deal with violations, monitoring has not been taken seriously in the implementation of the program*" (Participant 13).

Monitoring levels

One of the participants stated, "*Based on the instructions, the monitoring teams were assigned by country, district, province, city, and hospital, but in practice, the monitoring did not take place in all these levels, especially in the district, and the monitoring team did not effectively attend the program according to the instructions*" (Participant 7).

Monitoring steps and timing

One of the participants stated, "*In the implementation step, visiting hospitals and reporting their performance to the Ministry of Health was not followed precisely after two years of implementation of the program. There are no monthly and continuous monitoring of the implementation of the program in the hospital*" (Participant 11)

Disciplinary measures

One of the participants said, "*Hospital managers did not properly monitor the implementation of the program and ignored violations*" (Participant 4). Another participant noted, "*After implementing the program, the tensions between the hospital managers and physicians increased and this created problems in encouraging physicians to collaborate and participate in other hospital programs*" (Participant 22).

Resident physician's performance

One of the themes resulted from the analysis of interview data was the factors related to the performance of the resident physicians. This theme consisted of three classes including *evaluating the performance of resident physicians*, *presence of resident physicians*, and *accommodation for resident physicians*. According to all participants, "*Resident physician program has improved the treatment indicators*" (Participants 21 & 23). "*Resident physician program had an impact on key indicators such as reducing mortality and discharge against medical advice and increasing satisfaction*" (Participant 19).

Evaluating the performance of resident physicians

According to one of the participants, "*The comments and reports of the head of the ward are not received and considered in the evaluation of the performance of resident physicians*" (Participant 21). "*Payment for the residence is not based on the performance score obtained*" (Participant 24). Another participant said, "*Although in the instructions, the criteria such as timely visiting the patients, determining the condition of patients in the emergency room, the quality of services provided by the physician, and regular physical presence in the working hours are the major indicators of the doctors' performance, in practice, performance evaluation is not conducted based on the indicators and criteria included in the instruction*" (Participant 13). "*In the implementation stage, the results of performance evaluation are not provided to the resident physicians to know the feedbacks*" (Participant 15).

Presence of resident physicians

Concerning the presence of the resident physicians, the participants believed that "*Theoretically, the resident physicians must be physically present from 2 p.m. to 8 a.m. in non-holidays, and 24 hours in holidays and perform diagnostic and therapeutic procedures required by patients related to their specialized field, but they do not have full-time attendance*" (Participant 19). One of the participants said, "*In many centers, the doctors are not effectively present and educational groups do not effectively cooperate to cover the program in the medical education center*" (Participant 19). Another participant believed, "*The duties of resident physicians interfere with the duties of attendant physicians in resident education*" (Participant 11).

Accommodation for resident physicians

One of the participants stated, "*According to the*

instructions of the resident physician program, the hospital managers must provide appropriate living place and amenities for the resident physicians, but in practice, the infrastructure is not provided, and the room and living place for resident physicians are not appropriate" (Participant 8). Furthermore, "*There were no proper amenities for the presence of resident physicians in the hospital*" (Participant 16).

Payments of the program

One of the themes resulted from the analysis of interview data was the factors related to the payments of the resident physician program. This theme consisted of three classes including *resident physician's wage*, *payment time*, and *financing*. All participants considered the payment of the resident physician program appropriate according to the instructions. "*The resident physician's wage is satisfactory and motivating*" (Participant 23). However, in practice, "*the prolongation of the payment discourages physicians*" (Participant 4).

Resident physician's wage

The participants believed that "*Theoretically, the average wage of the resident physician was 5 000 000 Rials per night in 2014, and in the next years, the amount of payment has been announced by the Ministry of Health, but this amount is not proper for the appropriate implementation of the program*" (Participant 3). "*The physicians are satisfied with this payment*" (Participant 23). On the other hand, one of the participants believed that, "*This program created expectations in the specialist staff; the undesirable impact of the past on the system is repeated by delay in payments and not continuing the program*" (Participant 10).

Payment time

According to the participant 14, "*Theoretically, the department of health in the province is obliged to pay the resident physician's wage and employee's salary at the same time, but in practice, the resident physicians are not paid according to the timeline determined in the instructions*" (Participant 12).

Financing

According to one of the participants, "*Based on the instructions, the resident doctors' wages are paid by the credits of this program in the form of a memorandum and based on the performance of the department of health in the province , but in practice, there are restrictions in funding*" (Participant 12). Another participant believed, "*Financial sources of the program are stable*" (Participant 6). "*The financial strength of insuring organizations is low, and non-cooperation of the insuring organizations led to delay in the payments to hospitals*" (Participant 21).

Discussion

The results of the present study showed external and internal factors have a role in implementing the resident physician program. In theory and according to the guidelines, clinical and educational hospitals affiliated with the Ministry of Health and Medical Education with the number of beds fewer than 64 are excluded (11) while from the perspective of those who participated in this study, this restriction is deemed as a threat to the implementation of the program. Hospitals with beds fewer than 46, which do not meet the conditions for the resident physician program, do not receive any payment; therefore, the physicians there will be demotivated and disappointed and they will not be willing to stick to their commitment. Based on the instructions, the educational and treatment centers are obliged to cover resident physicians for 24 hours of service in all places (11). In practice, an ideal monthly program to cover thoroughly was prepared and it didn't match the capacity of the specialist doctors in medical centers and provinces. This forced the doctors to participate in the resident program, which consequently contributes to disobeying the rules, regulations, and requirements of the program. In practice, shortage of qualified human resources and insufficient infrastructure in hospitals are the threats to the proper implementation of the program. Khalajinia and Gaeeni, in a study on threats, opportunities, and challenges to the Ministry of Health and Medical Education in implementing the plan of development of health system, pointed to lack of infrastructure and neglecting the threatening factors in human resource domain (13), which is in line with the results of the present study. Providing timely medical services, 24-hour accountability of the medical and educational centers, diagnosing the problem by the specialists in the shortest time, timely visit of the patients, performing emergency operations and procedures, and increasing patient satisfaction are of the main goals of the program in theory (11). In practice, the resident physician program contributed to reinforcing the accountability of the centers, improving the treatment process, and upgrading the structural indices like increasing the number of visits, hospitalizations and surgeries, and improving other indices like taking less time to correctly diagnose the problems and discharge the patients from emergency wards less than 12 hours. Moreover, it led to improving the average time of clinical counseling, bed occupancy rate, and patient stay duration, and decreasing mortality and discharge against medical advice. It shows that the theory is in line with practice in the program.

The results of the study by Sajadi and Zaboli on the evaluation of the positive effects of health development plan from the hospital managers' perspective indicated the impact of health development plan on increased accountability of the hospital in spite of the violation of

insurance obligations by insurance companies (24). Shen et al. examined the effect of implementation of health plan in hospitals and concluded that the performance of the hospital improved and the economic burden on patients reduced (25). The study by Yasar also showed that the implementation of the transformation plan in the Turkish health system has filled hospital beds and, as a result, increased the bed occupancy rate (26) which was in line with the theoretical purpose of the plan.

In theory, monitoring the implementation of the program at different levels and chronological phases has been taken into account (11). In the present study, poor monitoring was detected as a factor contributing to the poor implementation of the program. Despite the fact that monitoring levels were defined in regulations, monitoring at hospital created a challenge for technical manager of the hospital dealing with the specialist physicians. In other words, the monitoring should be shifted from focusing on the presence of the physicians to their effective presence. This can result in their involvement in treatment plans beyond office hours. Moreover, monitoring didn't take place at the health network according to the theoretical objectives of the instructions.

One criterion to determine satisfaction with the resident physician's treatment regarding the instruction theory is their regular presence during their working hours and the center is obliged to evaluate their performance (11). However, in some hospitals, the hours a resident physician can attend the hospital are already decided by mutual agreement. Lack of effective evaluation of the performance of the resident physicians particularly concerning patient satisfaction is one of the defects of the program which can lead to the arbitrary implementation of the program. Khayeri et al conducted a study to examine the resident physician program in hospitals affiliated with medical universities and indicated that the least observed dimension of the instructions was reporting the performance of the resident physicians (18). Goodarzi et al revealed that the active presence of resident physicians in the resident physician program was not ideal (19).

In theory, the hospital managers must provide the facilities and accommodation for resident physicians (11) which in practice was not provided appropriately. Goodarzi et al showed that in the resident physician program, the facilities and accommodation for resident physicians in the hospital were provided desirably (19) which was not in line with the results of the present study. The payment was predicted to be made monthly (11), but in practice, regarding the financial problems, payment was delayed and as a result affected the continuation of the program, patient satisfaction, and resident physicians' motivation. Heidarian and Vahdat in a study emphasized the effects of implementation of the development plan of health system on patients' paying and stability of the resources and also stressed the need for the Ministry of Health and Medical Education as well as insurance organizations to contribute to enhancing the quality of the services (6), which is in line with the results of the present study. Despite all probable benefits, the health system development plan seems to have some defects and needs to be assessed periodically to overcome these defects.

Due to the qualitative nature of the present study, there is the possibility that some participants forgot certain experiences or were unwilling to truly express some experiences and feelings, which was a limitation of the study.

Conclusion

The results of the present study showed that the resident physician program lags behind theory in financing, providing human resources, equipment, information, and monitoring. Therefore, it is suggested that certain measures be taken to continue this program including providing stable payment resources and mechanisms, making the participation of faculty members in the program obligatory, evaluating the performance of the physicians, and focusing on clinical guidance.

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Competing Interests

The authors declared no conflict of interest.

Ethical Approval

The study was approved by ethical code of project: (IR.MAZUMS. REC.1398.3507).

References

1. Rezaei S, Rahimi Foroushani A, Arab M, Jaafaripooyan E. Effects of the new health reform plan on the performance indicators of Hamedan university hospitals. Journal of School of Public Health and Institute of Public Health Research. 2016;14(2):51-60. [Persian].
2. Mardani M, Nekoei-Moghadam M, Rahmanian E. Obstacles to the implementation of intersectoral planning in the healthcare system. J Qual Res Health Sci. 2020;8(4):28-36. doi: 10.22062/jqr.2020.90988.
3. Piroozi B, Mohamadi Bolban Abad A, Moradi G. Assessing health system responsiveness after the implementation of health system reform: a case study of Sanandaj, 2014-2015. Iran J Epidemiol. 2016;11(4):1-9. [Persian].
4. Hashemi B, Baratloo A, Forouzafar MM, Motamedi M, Tarkhorani M. Patient satisfaction before and after executing health sector evolution plan. Iran J Emerg Med. 2015;2(3):127-33. doi: 10.22037/ijem.v2i3.9307. [Persian].
5. Yazdani S, Nikravan Mofrad M, Ahmadi S, Zagheri Tafreshi M. An analysis of policies of the Iranian health care system in relation to the nursing profession. J Qual Res Health Sci. 2020;5(2):211-20. [Persian].
6. Heidarian N, Vahdat S. The impact of implantation of health care reform plan in patients pay out of pocket in

selected public hospitals in Isfahan. J Iran Med Council. 2015;33(3):187-94. [Persian].
7. Nematbakhsh M. Research on health system reform plan. Iran J Med Educ. 2015;15(11):64-6. [Persian].
8. Seaburg LA, Wang AT, West CP, Reed DA, Halvorsen AJ, Engstler G, et al. Associations between resident physicians' publications and clinical performance during residency training. BMC Med Educ. 2016;16:22. doi: 10.1186/s12909-016-0543-2.
9. Faridfar N, Alimohammadzadeh K, Seyedin SH. The impact of health system reform on clinical, paraclinical and surgical indicators as well as patients' satisfaction in Rasoul-e-Akram hospital in 2013 to 2014. Razi J Med Sci. 2016;22(140):92-9. [Persian].
10. Tavan H, Menati R, Alimardani O, Sayadi F, Borgi M. Satisfaction with health reform plan from patients' and their accompanimentin Shahid Mostafa Khomeini hospital of Ilam 2015. Nursing Journal of the Vulnerable. 2016;2(5):27-39. [Persian].
11. Iran: Ministry of Health and Social Services. Set guidelines for health system reform plan. In: Ministry of Health of Iran; 2014. p. 26-34. [Persian].
12. Sajadi HS, Sajadi ZS, Sajadi FA, Hadi M, Zahmatkesh M. The comparison of hospitals' performance indicators before and after the Iran's hospital care transformations plan. J Educ Health Promot. 2017;6:89. doi: 10.4103/jehp.jehp_134_16.
13. Khalajinia Z, Gaeeni M. Challenges in implementation of health care reform in the area of treatment Qom city. Management Strategies in Health System. 2018;3(3):212-24. doi: 10.18502/mshsj.v3i3.253. [Persian].
14. Asadi P, Monsef Kasmaie V, Zohrevandi B, Zia Ziabari SM, Beikzadeh Marzbani B. Disposition of patients before and after establishment of emergency medicine specialists. Iran J Emerg Med. 2014;1(1):28-33. doi: 10.22037/ijem.v1i1.7221. [Persian].
15. Yousefzadeh Chabok S, Mohtasham Amiri Z, Haghdoost Z, Mohseni M, Asadi P, Kazemnezhad Leili E. Patients discharged before and after presence of medical emergency specialists. J Holist Nurs Midwifery. 2014;24(71):64-70. [Persian].
16. Mohammadi M, Firouzkouhi M, Abdollahimohammad A, Shivanpour M. The challenges of pre-hospital emergency personnel in Sistan area: a qualitative study. J Qual Res Health Sci. 2020;8(3):221-32. [Persian].
17. Horwitz LI, Green J, Bradley EH. US emergency department performance on wait time and length of visit. Ann Emerg Med. 2010;55(2):133-41. doi: 10.1016/j.annemergmed.2009.07.023.
18. Khayeri F, Goodarzi L, Meshkini A, Khaki E. Evaluation of the national health care reform program from the perspective of experts. Journal of Client-Centered Nursing Care. 2015;1(1):37-46. doi: 10.32598/jccnc.1.1.37.
19. Goodarzi L, Khayeri F, Meshkini A, Khaki E. How to Implement Six Healthcare Reform Plan from the Perspective of Experts to Monitor Treatment. Tehran: Criticism of the Government in Health XI; 2015.
20. Akhondzade R. Health system transformation project, an opportunity or a threat for doctors (Editorial). Anesthesiology and Pain. 2014;5(1):1-2. [Persian].
21. Kalhor R, Gholami S, Heidari S, Bakhtiari N, Moosavi S, Keshavarz A, et al. The effects of the health reform plan on the performance indicators of hospitals affiliated with Qazvin University of Medical Sciences, Iran, 2014. Chron Dis J. 2018;6(3):101-7. doi: 10.22122/cdj.v6i3.280.
22. Malekzadeh R, Abedi G, Mahmoodi G. Identification of effective components in hospital performance assessment: a qualitative study. J Qual Res Health Sci. 2021;10(2):100-7. doi: 10.22062/jqr.2021.193665.0.
23. Tavakkoli M, Karimi S, Jabbari A, Javadi M. A survey of the strengths of the performance-based scheme in selected teaching hospitals of Isfahan, Iran, in 2014: a qualitative study. J Qual Res Health Sci. 2020;5(1):46-55. [Persian].
24. Sajadi HS, Zaboli R. An assessment of the positive effects of health reform plan implementation from the perspective of hospital directors. Health Information Management. 2016;13(1):55-60. [Persian].
25. Shen JJ, Zhou S, Xu L, Chen J, Cochran CR, Fisher ER. Effects of the new health care reform on hospital performance in China: a seven-year trend from 2005 to 2011. J Health Care Finance. 2014;41(1):1-14.
26. Yasar GY. 'Health transformation programme' in Turkey: an assessment. Int J Health Plann Manage. 2011;26(2):110-33. doi: 10.1002/hpm.1065.