

An Investigation into the Status of Health Sector in the Hospitals of Yasuj City after the Implementation of Health Sector Evolution Plan

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Abstract

Introduction: Health sector evolution plan (HSEP) is one of the programs that has been considered as a priority in the programs of the Ministry of Health and Medical Education (MoHME). The purpose of this study was to investigate the health sector status of the hospitals in Yasuj city after the implementation of health sector evolution plan.

Methods: In this descriptive study, according to Morgan table, 181 patients from Shahid Beheshti Hospital, 108 patients from Shahid Rajaei Hospital and 169 patients from Imam Sajjad Hospital were selected as the statistical sample. All subjects completed the health system status questionnaire. To analyze the findings of the study, Kolmogorov-Smirnov tests, one-way analysis of variance and one-sample t- test were used ($p \leq 0.05$).

Results: The results showed that the implementation of health sector evolution plan in Shahid Beheshti Hospital ($p = 0.001$), Imam Sajjad ($p = 0.001$) and Shahid Rajaei ($p = 0.001$) in Yasuj is favorable. Also, there is no significant difference in the implementation of health sector evolution plan in Shahid Beheshti, Imam Sajjad and Shahid Rajaei hospitals in Yasuj city ($p = 0.39$).

Conclusion: It seems that after the implementation of health sector evolution plan (HSEP), the health status of the hospitals in Yasuj has improved to a similar extent.

Keywords: Health Sector, Health Sector Evolution Plan, Hospital

Introduction

The reform of the health sector in countries has continuously encountered with different experiences and at the same time common goals; and in this vein, in Iran, we may point out some relevant experiences among which is the launch of health care networks in the country (1). The launch of the health sector evolution plan (HSEP) since early 2014 is one of the programs that was seriously considered as a priority in the Ministry of Health and Medical Education (MoHME) programs in the short term. Obviously, this plan can be viewed from a variety of dimensions: the plan looks more in terms of its therapeutic and economic perspectives, but the educational, research and even cultural sectors of universities will be affected by the implementation of this plan

now and more importantly in the future. One of the most important goals of this plan is to reduce out-of-pocket (OOP) payments for inpatient services, which was emphasized by the fourth development plan, but its implementation was forgotten. As with any other project in a country such as Iran, with such a population and area, the implementation of this project has also encountered problems and concerns; and of course, the planning of this project, according to the experts, has strengths and weaknesses. In the same vein, in recent years, the health authorities of the country felt these problems and decided to design and implement a plan for the evolution of the health sector (2). In this regard, it should be stated that health sectors around the world are aimed at promoting the health of the community,

providing fair health care and improving people's satisfaction with the functioning of the health system (2). At the moment, complex economic issues are being raised in hospitals, one of which is planning to coordinate with the health sector. Health sector evolution plan is one of the most important steps taken by the government to respond to the primary need of people in the community and to improve the country's healthcare system, which is undoubtedly considered a revolution in the health sector (3). The implementation of the health sector evolution plan will increase public confidence and can be considered as the mainstay of the government in the field of public health, especially for the vulnerable and disadvantaged groups of society. The new health sector evolution plan in all public hospitals affiliated by medical sciences universities has been presented in eight general steps for implementation. Among the important issues of this plan is a plan for reducing OOP payments for inpatient services, promotional policies to encourage medical doctors to stay in deprived areas, attendance program for specialist physicians residing in the affiliated hospitals, improving the quality of visiting services, improving the quality of hoteling services, financial protection and support of patients with chronically disabling, or the so-called specific diseases [which include end-stage renal disease, thalassemia, hemophilia and multiple sclerosis], and those who are in need, programming for the promotion of natural vaginal delivery, enhancing the monitoring of the good performance of the provided services and the accountability of the hospital (3). In this regard, it is necessary for all health sectors, depending on the current requirements of the contingency and the circumstances ahead, to make changes and modifications in their structure, nature, or function, so that the principle of their responsiveness to existing needs is not disturbed. In many cases, the apparent weakness of the system's functioning has led to extensive reforms in the health

sector, including the demographic, geographical and financial inequalities in healthcare, inefficient and ineffective functioning of the health sector and the unproductive use of existing resources, people's high OOP payments for healthcare and the prevalence of poverty due to their use of health services, lack of responsibility and accountability of health authorities in terms of community health, weakness of morality in dealing with patients, and unacceptable quality services provided by the active center in the field of public health (2, 4-7). Iranian health sector has not been an exception to this and it has always been necessary to undergo major changes due to the existence of major shortcomings in its structure and functioning (2). Undoubtedly, the need for these fundamental reforms in our time is more than necessary, as our health system faces significant operational challenges such as severe weakness in financial and geographical access to health services, very low quality of care, especially in governmental and academic centers, paying a major part to health costs from the people's pockets and so their falling into poverty and misery, public dissatisfaction and trust in the services, inefficient and ineffective management of healthcare, poor quality of spaces and facilities in hospitals, excessive weakness in the health insurance system and inadequacy of country's insurance, small presence of doctors in governmental centers and hospitals, and their little participation in solving health sector problems, as well as lack of a referral system for right and appropriate use of health services (2). Regarding the implementation of the health sector evolution plan (HSEP), several studies have been conducted in China (8), Brazil (9), the United States (10- 12), England (13), Turkey (14) and Germany (15). In Iran, Gheibi *et al.* (2015) reported that in Taleghani Hospital in Tabriz, the highest achievements of the health sector evolution plan were related to the reduction of the OOP patient's payments and the lowest achievements were in the areas

of physicians' residence, improvement of the quality of visits and the promotion of natural vaginal delivery (2). Mousavi *et al.* (2016), in evaluating the in-patients' satisfaction with the health sector evolution plan in the educational and therapeutic centers of Urmia University of Medical Sciences, held that despite the fundamental change in healthcare to the patients admitted to public hospitals and increasing salaries and provision of facilities and equipment for health centers, there are still shortcomings affecting different vocational areas (3). Also, Nematbakhsh (2015) reported that health sector evolution plan could potentially have positive effects, but the main condition for it is to minimize the factors that as the weaknesses or threats affect good implementation of the plan (1). Therefore, regarding the newly emergence of health sector evolution plan and the need to monitor and evaluate it and considering the non-publication of a study on the status of the plan and its positive and negative effects, especially in Yasuj, this study aimed to investigate the health sector status in Yasuj hospitals after the implementation of health sector evolution plan.

Methods

The statistical population of this descriptive study comprised patients hospitalized in Yasuj city hospitals during a period from November 2016 to January 2017 who were admitted to hospitals for more than 48 hours and also passed 24 hours after admission. There were totally 830 patients in three hospitals including Shahid Beheshti hospital (N=380), Shahid Rajaei Hospital (N=150) and Imam Sajjad Hospital (N=300) from whom subjects were purposefully selected from Shahid Beheshti Hospital (n=181), Shahid Rajaei Hospital (n=108), Imam Sajjad Hospital (169) based on availability and Morgan table and were assigned as statistical sample of the study. To conduct the research, general information questionnaire and health sector questionnaire were distributed among all subjects and

collected after completion. Given that the questionnaires were completed by the patients themselves, the researcher carefully examined all the pages of the questionnaire after completion, and in case of deficiency, patients were asked to correct the deficiencies. The general information questionnaire consisted of 10 questions and included items such as age, sex, marital status, insurance status, occupation, doctor's name, place of residence, education, type of disease, and the ward hospitalized. The researcher-made health sector status questionnaire consisted of 40 questions that were based on five-item Likert scale and its reliability proved to be 0.8 Cronbach's alpha. To analyze the findings of the research, Kolmogorov-Smirnov test, one-way analysis of variance and one-sample t-test, were run, using SPSS 21 software ($p \leq 0.05$).

Results

The results of one-sample t-test in Table 1 show that the status of the implementation of health sector evolution plan in Shahid Beheshti Hospital ($t = 57.19$, $p = 0.001$) Imam Sajjad hospital ($t = 50.17$, $p = 0.001$) and Shahid Rajaei Hospital ($t = 40.06$, $p = 0.001$) of Yasuj city is desirable. The results of one-sample t-test in Table 2 show that in Shahid Beheshti Hospital, the status of the components of the health sector is desirable, which includes the reduction in out-of-pocket patients' payments ($t = 4.31$, $p = 0.001$), support for the maintenance of physicians in deprived areas ($t = 4.10$, $p = 0.001$), the presence of specialist physicians residing in public hospitals ($t = 4.44$, $p = 0.001$), improvement of the quality of the visiting services in public hospitals ($t = 3.21$, $p = 0.002$) and support for patients with chronically disabling, or the so-called specific diseases ($t = 9.24$, $p = 0.001$). However, the improvement in the quality of hoteling is not desirable ($t = 0.32$, $p = 0.74$). In Imam Sajjad Hospital, the status of the components of the health sector, including the presence of

Table 1. The results of one way ANOVA test and one-sample t- test to review the implementation of health sector evolution plan in the hospitals of Yasuj city

Name of Hospitals	Mean	Stander Deviation	t	F
Shahid Beheshti	80.48	18.93	t=57.19* , P=0.001	F=0.93, p=0.39
Imam Sajjad	77.93	20.19	t=50.17* , P=0.001	
Shahid Rajaei	77.86	20.01	t=40.06* , P=0.001	

Table 2. The results of one-sample t- test to review the status of the components of the health sector in Shahid Beheshti, Imam Sajjad and Shahid Rajaei hospitals of Yasuj city

Hospital	Health Sector Component	Mean ± Standard Deviation	t	p
Shahid Beheshti	Reduction in out-of-pocket patients' payments	16.48±4.60	4.31*	0.001
	Support for the maintenance of physicians in deprived areas	16.41±4.65	4.10*	0.001
	Presence of specialist physicians residing in public hospitals	16.56±4.73	4.44*	0.001
	Improvement in the quality of hoteling in hospitals	14.87±5.29	-0.32	0.74
	Improvement of the quality of the visiting services in public hospitals	16.14±4.78	3.21*	0.002
	Support for patients with chronically disabling (so-called specific diseases)	17.21±9.44	9.24*	0.001
Imam Sajjad	Reduction in out-of-pocket patients' payments	15.30±4.81	0.83	0.40
	Support for the maintenance of physicians in deprived areas	16.39±10.28	1.67	0.07
	Presence of specialist physicians residing in public hospitals	16.02±4.97	2.69*	0.008
	Improvement in the quality of hoteling in hospitals	14.76±4.56	-0.67	0.50
	Improvement of the quality of the visiting services in public hospitals	15.43±4.85	1.14	0.25
	Promotion of natural vaginal delivery program	18.28±3.68	11.58*	0.001
Shahid Rajaei	Reduction in out-of-pocket patients' payments	15.38±4.85	0.83	0.40
	Support for the maintenance of physicians in deprived areas	15.94±4.75	2.06*	0.04
	Presence of specialist physicians residing in public hospitals	15.56±4.97	1.17	0.24
	Improvement in the quality of hoteling in hospitals	14.45±5.53	-1.02	0.30
	Improvement of the quality of the visiting services in public hospitals	16.16±4.63	2.59*	0.01
	Support for patients with chronically disabling (so-called specific diseases)	19.21±7.33	12.22*	0.001

specialist physicians residing in public hospitals ($t = 2.69$, $p = 0.008$) and promotion of natural vaginal delivery program ($t = 11.58$, $p = 0.001$) is desirable. However, the reduction in out-of-pocket patients' payments ($t = 0.83$, $p = 0.40$), support for the maintenance of physicians in deprived areas ($t = 1.76$, $p = 0.77$), promotion of hoteling quality in hospitals ($t = -0.67$, $p = 0.50$), and improving the quality of visiting services in public hospitals ($t = 1.14$, $p = 0.25$) are not desirable. In Shahid Rajaei Hospital, the status of components of the health sector, including support for the maintenance of physicians in deprived areas ($t = 2.06$, $p = 0.04$), improving the quality of patients' visiting services in public hospitals ($t = 2.59$, $p = 0.01$), and support for patients with chronically disabling, or the so-called specific diseases ($t = 12.22$, $p = 0.001$) are desirable. However, there was a reduction in patient payments ($t = 0.83$, $p = 0.40$) presence of specialist physicians residing in public hospitals ($t = 1.17$, $p = 0.24$) and improvement of hoteling quality in hospitals ($t = -1.02$, $p = 0.30$) is not desirable. Also, the results of one-way ANOVA test in Table 1 show that there is no significant difference in the implementation of the health sector plan among Shahid Beheshti, Imam Sajjad and Shahid Rajaei hospitals of Yasuj city ($t = 0.93$, $p = 0.39$).

Discussion

The findings of this study showed that the implementation of the health sector plan in Shahid Beheshti, Imam Sajjad and Shahid Rajaei hospitals of Yasuj is optimal. Also, there is no significant difference in the implementation of health sector plan in Shahid Beheshti, Imam Sajjad and Shahid Rajaei hospitals of Yasuj. Regarding the effectiveness of health sector evolution plan Rezaei *et al.* (2016), Nakhaei *et al.* (2017), Mohammadi and Zarei (2016), Heidarian and Shaghayegh (2015), Pirouzi *et al.* (2015), and Ebrahimipour *et al.* (2017) Reported that the health sector evolution plan has been effective

in the hospitals of Hamedan province (16), hospitals affiliated to Birjand University of Medical Sciences (17), the hospitals in Ilam city (18), the public hospitals in Isfahan (19), the households in Sanandaj (20), and Imam Reza Hospital in Mashhad (21). In line with the findings of the present study, the results of Dadgar *et al.* (2017) showed that the health sector evolution plan had a beneficial effect on the performance indices of the hospitals affiliated to Lorestan University of Medical Sciences, and all performance indices had a better status than before (22). Nabilou *et al.* (2016) in assessing the performance of the health sector evolution plan in hospitals affiliated with the West Azerbaijan Medical Sciences University reported that health sector evolution plan has improved the performance of these hospitals (23). The researchers stated that after implementing health sector evolution plan and reducing the cost of treatment, hospitals are faced with an increase in the number of patients referred and beds occupancy rate. Failure to provide the required human resources and facilities in proportion to the increased burden of referrals to provide care, and / or saturation of hospital capacity (output to constant scale) are among the most common causes of reduced efficiency in inefficient hospitals after the establishment of health sector evolution plan (23). Contrary to the findings of the present study, the nurses of educational hospitals in Ahvaz in 2015 were dissatisfied with the implementation of health sector evolution plan (24). Shariati *et al.* (2017) argued that those who have low educational levels are less likely to expect from hospitals, and also those with higher levels of education have higher levels of expectation (24). It should be noted that the decision-making process on the priority needs of the health sector and ensuring meeting these priorities, including equity in access to health services and financial justice in health, depend on the functions of the health system (25). In this regard, the findings of this study showed that there is no significant difference in the

implementation of health sector plan in Shahid Beheshti, Imam Sajjad and Shahid Rajaei hospitals of Yasuj. Therefore, it seems that financial and human sources are equally distributed in Shahid Beheshti, Imam Sajjad and Shahid Rajaei hospitals of Yasuj. The results of this study showed that the status of health sector components in Shahid Beheshti Hospital, including reducing the amount of patients' payments, supporting the maintenance of doctors in deprived areas, presence of specialist physicians residing in public hospitals, improving the quality of visiting services in public hospitals and supporting the patients with high is desirable. However, the quality of hoteling is not desirable. In Imam Sajjad Hospital, the status of the components of the health sector, including the presence of specialist physicians residing in public hospitals and promotion of the natural vaginal delivery program, is desirable, however, the status of reducing the patient's payment, supporting the survival of physicians in deprived areas, improving the hoteling quality in hospitals and improving the quality of visiting services in public hospitals is not desirable. Also, in Shahid Rajaei Hospital, the status of support for the maintenance of doctors in deprived areas, improving the quality of the visiting services in public hospitals and supporting patients with chronically disabling, or the so-called specific diseases is desirable; however, the status of reduced payments for patients, presence of specialist physicians residing in public hospitals, and improving the quality of hoteling in hospitals it is not desirable. Out-of-pocket (OOP) payment is a proportion of the cost of health services that is paid directly from the pocket when receiving a service and as a general principle an increase in it is undesirable; hence, its reduction is more and more positively evaluated and is mentioned as a case in the fourth development plan (19). Concerning the decrease in the rate of OOP payment of patients, the findings of Heydarian and Shaghayegh (2015) regarding Shahid

Beheshti Hospital are consistent with the present study but are inconsistent with the Imam Sajjad and Shahid Rajaei hospitals (19). In fact, the findings of Heydarian and Shaghayegh's research and the present research (in relation to Shahid Beheshti Hospital) indicate that the health sector evolution plan has so far been able to achieve its first and most important goal of reducing the amount of out-of-pocket payment of patients with success. This is achieved by allocating resources from the targeted subsidies and one percent of the value added tax in the form of health subsidies. Regarding the rate of natural vaginal delivery, the findings of the study by Dadgar *et al.* (2017) were consistent with the present study. Dadgar *et al.* (2017) reported that the ratio of cesarean to total natural births decreased in hospital centers affiliated by Lorestan University of Medical Sciences and this decrease was significant (22). In the end, it should be noted that the lack of control of the accuracy of respondents' answers to the questionnaire items and access to patients' referral to other hospitals in Yasuj are among the limitations of this study. According to the reported studies, the level of physicians and nurses' satisfaction has a high impact on health services. Therefore, it is suggested that future studies should investigate the relationship between the components of the health sector and the level of satisfaction of nurses and doctors in the hospitals of Yasuj city.

Conclusion

According to the results of this study, it is concluded that the implementation of the health sector evolution plan in Shahid Beheshti, Imam Sajjad and Shahid Rajaei of Yasuj hospitals is in a desirable condition. It can also be stated that after the implementation of the health sector evolution plan, the status of the Health sector in Yasuj hospitals has improved to a similar extent.

Ethical issues

Not applicable.

Authors' contributions

Only one author contributed to the writing and revision of this paper.

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