



A Comparative Study of Hospitals in Yasuj, Iran, in Terms of the Implementation of the Health System Planning and the Quality of Medical Services

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Abstract

Background: Today, the implementation of the health system plan has led to the reduction of people's payments and to equitable access to health services and the improvement of the quality of services.

Objectives: The current research was conducted with the aim of a comparative study of hospitals in Yasuj, Iran, in terms of the implementation of the health system plan and the quality of medical service.

Methods: The statistical population of the present descriptive study was 380 patients at Shahid Beheshti Hospital, Yasuj, 150 patients in Shahid Rajaei Hospital and 300 patients in Imam Sajjad Hospital, all located at Yasuj, Iran. According to Morgan's table, 181 patients at Shahid Beheshti Hospital, 108 patients at Shahid Rajaei Hospital and 169 patients at Imam Sajjad Hospital were included as the statistical sample. All the participants completed the questionnaire and the implementation status of the health system plan and the quality of medical services. One-way ANOVA was used to analyze the statistical findings. All statistical operations were performed using SPSS v.18 software

Results: The results of the the present study indicated that the health system implementation status of Shahid Beheshti Hospital, Imam Sajjad Hospital and Shahid Rajaei Hospital in Yasuj was favorable. These findings indicated that the health system plan in Yasuj were properly and correctly implemented. Moreover, the quality of medical services at Shahid Beheshti Hospital, Imam Sajjad Hospital, and Shahid Rajaei Hospital in Yasuj were satisfactory. Also, the results showed that there is was no significant difference in the quality of medical services in Yasuj hospitals ($P = 0.44$ & $F = 0.81$ & 455 & 2 F). Correspondingly, the results disclosed that there was no significant difference in the implementation status of the health system plan of hospitals in Yasuj city ($P = 0.39$ & $F = 0.93$ & 455 & 2).

Conclusions: Medical centers should continuously evaluate the quality of their services, since improving the quality of medical services encourages patients to follow their treatment instructions correctly and on time, and also accelerate the progress of treatments and achieves the main therapeutic goal of treating patients.

Keywords: Health System Design, Quality of Medical Services, Hospitals of Yas

1. Background

The main mission of a hospital in the health system is to provide quality care for patients and meet their needs and expectations. The ever-increasing limitations and problems of the health system have led to encourage countries to reform the existing situation, and based on this, health system reform programs were implemented in Iran in 2013. The health system reform plan is a plan to improve health care systems in Iran, which

started on May 15, 2014, in hospitals of the Ministry of Health. This plan was implemented with the approach of creating transformation in the health system and with the three goals including financial protection of the people, creating justice in access to health services and improving the quality of services. In this century, new developments have caused the service sector to expand rapidly (1). To the extent that services are no longer considered a small part of the economy, but are rather considered as the heart of value creation in the economy (1).

Today, providing, establishing, understanding and maintaining the quality of superior services is one of the most important issues of any country. Facing the constant pressure of competition, medical and treatment service providers, whose number is rising, have realized that providing the proper quality of services in the health and treatment sector is the most important factor in attracting patients and ensuring future success (2).

In fact, at the present time, the service sector has the largest share in the economy of the countries. In today's world, the issue of quality has made the management of organizations face challenges, and its acceptance in the service sector has increased (3).

However, since people have been trying to maintain their health and treat diseases, health systems have existed in some form and have evolved over time and reformed. The World Health Organization has defined the health system as all activities whose main purpose is to promote, restore or maintain health. The health system consists of a set of organizations, institutions and financial resources that have the primary goal of promoting and improving the health status of the country.

The rise in the number of centers providing medical services has increased the competition for attracting patients, so hospitals, realizing this issue, have implemented models to increase patient satisfaction. Therefore, in order to increase patient satisfaction, in addition to providing services and a favorable care environment, hospitals need to develop and manage close relationships with patients (4). Hospital centers are one of the pillars of the health system in any country. It is not possible to reform the health system without improving the performance of these centers. In hospitals, on the one hand, due to the limited and slow return of resources and the need to provide optimal services, it is vital to use quality improvement approaches. Service quality can be used as a strategic tool for success in competitive situations (5). On the other hand, like most services, the quality of healthcare services is fleeting and deteriorating, and the heads of hospitals and physicians are well aware of this. As a result, evaluation and re-evaluation of service quality is necessary not only to understand the quality of people's lives, but also to improve service delivery (6, 7). Nowadays, providing services in developed countries constitutes an important part of the gross domestic product. In this way, improving quality and increasing performance is one of the important goals of these governments. Organizations that operate in the treatment sector have realized that they must not only take care of their clients, but also take the opportunity to ask for their opinions about their expectations and perceptions of the organization's services. Patients who

receive medical treatment cannot see the result before receiving such services, and their judgment about it is based on their observations about the appearance of such organizations, equipment and instruments, the place of service, how the service is provided, the cost, and other things. Therefore, measuring service quality is vital for these organizations (8). A comprehensive and accurate understanding of the effect of these various factors is very important and relevant for medical services. With all the problems that exist in defining and measuring service quality, the continuous movement towards decentralized decision-making in the matter of service delivery requires that clear and targeted criteria for performance be developed so that service quality can be measured, controlled and finally improved (9). Quality means the ability to produce a product or provide a service in a way that meets the needs of customers and satisfies them (10) and the quality of health care is a degree of providing individual and group services that leads to in a desirable treatment (11). In today's chaotic health and treatment environment where various political, economic and social pressures are imposed on the responsible health services, the process of providing high-quality health services in the form of an organizational model has become an integral part of the life of service institutions, maintenance and nutrition. Quality processes are demanded to maintain the institutions responsible for health services and to maintain an efficient and effective organization that meets the needs of clients (12). Although service organizations have emphasized the need to improve quality and have prepared various plans to improve service quality, but for some reasons, service quality is still considered the utmost problem for these organizations (8). The challenges of measuring quality are finding a way to balance the expectations of patients and healthcare providers, and the starting point is what patients and providers value. The importance of quality in the industrial sector was noticed in the 1940-1950s (13) and it was raised in nursing since 1980 (14). Today, the quality of hospital services is facing many challenges around the globe (15). Most of the clients and patients demand good quality services due to the increase of awareness in the field of health. The first and most important factor in improving the quality of care is the measurement of quality (16). The British National Health System has defined the quality of health care as follows: The quality of providing the right services to the right people, at the right time, in a suitable and practical way, within The average ability of people in society and with humane methods (17).

Serkaval service quality model is one of the models developed in measuring services in the public sector. This model tries to measure service quality where service

quality is used as a necessity to understand the customer, his expectations and the quality of the services provided (18). This model helps patients and clients to compare the services provided to them by different organizations (19). The health plan includes seven axes in relation to reducing the amount of payment for hospitalized patients in hospitals affiliated to the Ministry of Health, supporting the longevity of doctors in disadvantaged areas, the presence of resident doctors in hospitals affiliated to the Ministry of Health, improving the quality of hoteling in hospitals affiliated to the Ministry of Health, financial protection of incurable, special and needy patients and promotion of natural childbirth, the implementation of which is hoped to solve many existing problems (20).

On the other hand, reforming the health system in countries has faced different experiences and at the same time with common goals, and some experiences can be mentioned in Iran, which includes the establishment of health and treatment networks in the country (21). It is obvious that the health transformation plan can be looked at from different dimensions: From one point of view, its therapeutic and economic aspects are more visible, but definitely, the educational, health, research and even cultural systems of universities are benefiting from the implementation of this plan at the moment and more importantly they will be effective in the future. One of the most important goals of this plan is to reduce the out-of-pocket costs of treatment, which was emphasized in the fourth development plan, but its implementation has been forgotten (22). Like any other plan in a developing country such as Iran, with such a population and vastness, the implementation of this plan has also faced problems, and of course, according to experts, the planning has strengths and weaknesses (23). The experts decided to design and implement it as a transformation plan of the health system (24).

There is no doubt that determining the level of efficiency in hospitals is one of the basic steps that must be taken quickly. Therefore, performance review can help health program executives to better understand its strengths and weaknesses. Evaluating, identifying and introducing the management challenges of the running programs can help policy makers and executives in solving these shortcomings and achieving the goals of the plan. In today's world, health outlooks have a wider perspective and special attention has been paid to non-medical expectations. The growing expectations of people and attention towards safety, quality and justice has augmented the pressure to create a health system that is responsive to performance. Placing the issue of justice in the development of goals and analytical framework of health systems can be justified not only

with strategies that focus on commitment to justice, but the evidence shows that people in different societies likewise give high priority to the issue of justice. Even though in recent years the health system has been able to achieve significant improvements in the general level of people's health, and also increase its related indicators by using the primary health care strategy, nonetheless still one of the most important concerns of policymakers is establishing justice in Health and access to health services. The Ministry of Health, Treatment and Medical Education as the custodian of health in the country with regard to the general duties and missions and upper documents, especially the 20-year vision document, general health policies announced by the Supreme Leader, legal articles related to health in the fifth development plan and the plans of the 11th government started the implementation of the health transformation program after a study phase. Considering the vastness of the health system transformation plan and the need for its monitoring and evaluation, and considering the lack of publication of any research regarding the state of the plan and its positive and negative effects, especially in Boyer Ahmad district, Yasuj, Iran, the researchers were interested in it in order to examine the state of the plan and its relationship with the quality of medical services.

2. Objectives

Therefore, the goal of the researchers was to answer the following questions: (1) What is the relationship between the health system and the quality of medical services; (2) what is the state of variables of the health system and the quality of medical services in the hospitals of Boyer Ahmed cities?

3. Methods

The article was based on the practical purpose, in terms of the nature and method of research, it was descriptive-correlational, in terms of time, it was cross-sectional and based on the practical purpose. On the other hand, in terms of the nature and method of the research, it was descriptive-correlation; Also, in terms of cross-sectional data collection, it was a cross-sectional research. In the present research, in order to collect information for establishing the general basics of research, such as defining key concepts, planning necessities, explaining its uses and explaining its importance from library studies such as studies of Farsi and Latin articles and Farsi and Latin books in the field of research variables and similar theses in this field and

Internet resources and seminars were used. In this field, field method tools such as consultation and interview with experts were used in the field of questionnaire design and analysis. The statistical population included in the present research included patients hospitalized in the hospitals of Boyer Ahmad during a period of three months from December to July 1401, so that they were hospitalized for more than 48 hours and also 24 hours were passed since their hospitalization, so the statistical population is 830 people. So that there were 380 people in Shahid Beheshti Hospital, 150 people in Shahid Rajaei Hospital and 300 people in Imam Sajjad Hospital. According to the collected information, the sample size of the present study was 830 people who were randomly selected according to the Morgan table in Shahid Beheshti Hospital, 181 people, Shahid Rajaei 108 people, and Imam Sajjad 169 people were selected as a statistical sample. Cluster sampling method was used.

In the present research, the main measurement tool was a questionnaire, which is one of the common research tools and a direct method for obtaining research data. In order to collect the required information, according to the literature of the subject and the background of the research, according to the opinion of the supervisor, as well as sampling from valid and standard samples, the health system and service quality questionnaire was used. The questionnaire of this research includes 3 parts:

(A) General information questionnaire: In general questions, the aim was to obtain general and demographic information of the respondents. This section contains 11 questions and includes things such as age, sex, marital status, insurance status, occupation, doctor's name, place of residence, education, type of illness, hospitalized department.

(B) The second part of the questionnaire included questions about the state of the health system and the quality of medical services as follows:

(1) The health system status questionnaire developed by the researcher in 2015, which includes 40 questions based on the five-choice Likert spectrum, and its reliability was 0.8.

(2) The service quality questionnaire taken from Parasurman (1998) which includes dimensions, tangibles (physical dimension), reliability, responsiveness, assurance, empathy, which is measured using a 5-option spectrum on a Likert scale.

In the present study, Cronbach's alpha coefficient was used to measure reliability. The Cronbach's alpha of the service quality questionnaire was found to be around 0.83 in previous researches, and the Cronbach's alpha of the health system questionnaire was found to be around 0.80. All the subjects completed the questionnaire and the

implementation status of the health system plan and the quality of medical services. One-way ANOVA was used to analyze the statistical findings. All statistical operations were performed using SPSS v.18 software.

4. Results

Table 1 shows that 61% of the research population were married and 39% of the research population were single.

Table 1. Frequency Distribution of the Marital Status of the Research Sample According to Gender

Marital Status and Gender	Abundance (%)
Married	
Male	147 (32.09)
Female	131 (28.60)
Single	
Male	100 (21.83)
Female	80 (17.46)
Total	
Male	247 (53.93)
Female	211 (46.06)
Grand total	458 (100)

Table 2 shows that 61% of the research community were married and 39% of the research community were single.

Table 2. Distribution of Job Frequency of Research Sample

Jobs	Abundance (%)
1. Employee	198 (43.23)
2. Selfemployed	63 (13.75)
3. Unemployed	75 (16.37)
4. Other	122 (26.63)
Grand total	458 (100)

Table 3 shows that 43.23% of people referring to Yasuj hospitals were employed, 13.73% were self-employed, 16.37% were unemployed, and 26.63% were other.

Table 3. Frequency Percentage of Gender of the Research Sample

Gender	Abundance (%)
Men	247 (53.93)
Women	211 (46.06)
Grand total	458 (100)

In order to check the desirability of the implementation of the health system plan in the hospitals

of Yasuj city, the results of the one-sample *t*-test are presented in Table 4. The results of the one-sample *t*-test in Table 4 show the implementation status of the health system plan of Shahid Beheshti Hospital ($P = 0.001$ and $t = 57.19$), Imam Sajjad Hospital ($P = 0.001$ and $t = 50.17$), and Shahid Rajaei Hospital ($P = 0.001$ and $t = 40.06$) of Yasuj was favorable so that the health system implementation status of Shahid Beheshti Hospital (80.48 ± 18.93), Imam Sajjad Hospital (93.20 ± 19) (77) and Shahid Rajaei Hospital (77.86 ± 20.01) of Yasuj were significantly higher than the average (75), so the hypothesis of the research that the implementation status of the health system plan in Yasuj hospitals was favorable is accepted.

The results of the one-way analysis of variance in Table 5 show that there was no significant difference in the implementation status of the health system plan of hospitals in Yasuj ($P = 0.39$ and $F = 455$ and $2 F = 0.93$), hence the research hypothesis that there was a significant difference between the hospitals of Yasuj in terms of the implementation of the health system plan is rejected (Table 6).

To check the desirability of the quality of medical services in the hospitals of Yasuj, the results of the one-sample *t*-test are presented in Table 7. The results of the one-sample *t*-test in Table 7 show the quality of medical services in Shahid Beheshti Hospital ($P = 0.001$ and $t = 7.39$), Imam Sajjad Hospital ($P = 0.001$ and $t = 5.57$) and Shahid Rajaei Hospital ($P = 0.001$ and $t = 4.47$) of Yasuj was favorable, so that the quality of medical services of Shahid Beheshti Hospital (117.29 ± 27.83), Imam Sajjad Hospital (114.49 ± 29.14) and Shahid Rajaei Hospital (113.28 ± 26.19) of Yasuj was significantly higher than the average, so the research hypothesis that the quality of medical services in Yasuj hospitals were favorable is accepted.

Moreover, the results of the one-way analysis of variance in Table 8 show that there was no significant difference in the quality of medical services in Yasuj hospitals ($P = 0.44$ and $F = 455$ and 0.81 , 2) hence the research hypothesis that there was a significant difference in the hospitals of Yasuj in terms of the quality of medical services is rejected (Table 9).

5. Discussion

The results of the present study indicated that the implementation status of the health system plan of Shahid Beheshti Hospital, Imam Sajjad Hospital and Shahid Rajaei Hospital in Yasuj was favorable. These findings indicated that the health system plan in Yasuj has been properly and correctly implemented. Correspondingly, the quality of medical services at Shahid Beheshti Hospital, Imam Sajjad Hospital, and Shahid Rajaei Hospital of Yasuj

was favorable, that is, between reducing the amount of patients' payments, supporting the longevity of doctors in deprived areas, the presence of resident specialist doctors in government hospitals, and improving the quality of hoteling in hospitals. Improving the quality of visit services in government hospitals is directly related to the quality of medical services. Furthermore, the findings of the present study indicated that there was no significant difference in the implementation status of the health system plan of Yasuj hospitals.

In the study of Frenk et al., it was shown that the achievements of health reform have been able to have significant effects in areas such as the expansion of the insurance system, support for low-income families, significant investment in the field of health, and especially the technical quality of health services. It is obvious that the improvement of the hotel situation can lead to the improvement of the image of the hospital and the improvement of the satisfaction of patients and their companions. The results indicated that all hospitals are improving their status, the managers pay more attention to the hospital hoteling, a significant percentage of the hospital's budget has been allocated to the hoteling, significant repairs have started in the hospital and the situation is getting better and the appearance of the hospital has improved a little. In fact, with the implementation of the health system transformation plan, hospitals were able to provide facilities for accepting more patients to compensate for the cost of purchasing equipment, etc. Similarly, instead of investing and spending more to specialize the hospital, they can use more general services; and the implementation of this plan led to the fact that hospitals saw a decrease in patients, the doctor's relationship with the patient, his presence at the bedside, the person's income, hospital expenses and access to the doctor after treatment had a great effect on the quality of medical services; that is, after the implementation of the health transformation plan, the level of satisfaction of patients and their companions with hospital services (treatment staff services, services, etc.) increased (25).

Moreover, the findings of the present study indicated that there was no significant difference in the quality of medical services in Yasuj hospital., in a study conducted by Mostafa, it was revealed that patients' expectations of the quality of hospital services depend on their satisfaction with the services and the choice of the type of hospital (public or private) has an effect (26). Hashemi et al. disclosed that after the implementation of the health reform plan, satisfaction with the provision of pre-discharge education, the condition of the inpatient rooms, the cleanliness of the sanitary facilities, the timely

Table 4. Results of One-Sample *t*-Test to Check the Implementation Status of the Health System Plan in the Hospitals of Yasuj City

Hospital Name	Average \pm Standard Deviation	<i>t</i>	Degree Freedom	Sig.
Shahid Beheshti	80.48 \pm 18.93	57.19 ^a	180	0.001
Imam Sajjad	77.93 \pm 20.19	50.17 ^a	168	0.001
Shahid Rajaei	77.86 \pm 20.01	40.06 ^a	107	0.001

^aSignificance is at the 0.05 level.**Table 5.** Mean and Standard Deviation of the Implementation Status of the Health System Plan of Hospitals in Yasuj City

Hospital Name	Number	Average \pm Standard Deviation	95% Confidence for the Mean		Lower	Upper
			Lower Limit	Upper Limit		
Shahid Beheshti	181	80.48 \pm 18.93	77.70	83.25	33	125
Imam Sajjad	169	77.93 \pm 20.19	74.86	81	30	181
Shahid Rajaei	108	77.86 \pm 20.01	74.01	81.72	25	125

Table 6. The Results of One-Way Analysis of Variance to Check the Status of Implementation of the Health System Plan Hospitals of Yasuj City

Statistics	Sum of Squares	Freedom Degree	Mean Square	<i>t</i>	Sig.
Between groups	722.13	2	361.06	0.93	0.39
Within groups	175067.61	455	386.46		
Total	175789.75	457			

Table 7. The Results of One-Sample *t*-Test to Check the Quality of Medical Services in Yasuj Hospitals

Hospital Name	Average \pm Standard Deviation	F	Freedom Degree	Sig.
Shahid Beheshti	117.29 \pm 27.83	7.39 ^a	180	0.001
Imam Sajjad	114.49 \pm 29.14	5.57 ^a	168	0.001
Shahid Rajaei	113.28 \pm 26.19	4.47 ^a	107	0.001

^a Significance is at the 0.05 level.**Table 8.** Results of One-Way Analysis of Variance to Check the Quality of Medical Services in Yasuj Hospitals

Statistics	Sum of Squares	Freedom Degree	Mean Square	F	Sig.
Between groups	1270.86	2	635.43	81.0	44.0
Within groups	355514.22	455	781.35		
Total	356785.09	457			

Table 9. Average and Standard Deviation of the Medical Service Quality Status of Hospitals in Yasuj City

Hospital Name	Number	Average \pm Standard Deviation	95% Confidence for the Mean		Lower	Upper
			Lower Limit	Upper Limit		
Shahid Beheshti	181	117.29 \pm 27.83	113.21	121.38	41	170
Imam Sajjad	169	114.49 \pm 29.14	110.06	118.91	37	170
Shahid Rajaei	108	113.28 \pm 26.19	108.29	118.28	34	165

visit of doctors, the care and time spent on examination, the recommendations regarding the recovery and well-being of the patient, the status of handling financial affairs, as well as the level of compliance with Sharia

standards and ethical principles, had significantly decreased (27).

The main mission of the Ministry of Health is to create a platform for ensuring the health of all the

people of the country, which is possible through policy making, regulation, monitoring and evaluation of different departments, but practically it can be seen that the Ministry of Health itself has become the largest provider of medical services, which it makes the effective performance of governance duties difficult, and this issue is correspondingly evident in the implementation of the transformation plan. In other words, the Ministry of Health is responsible for monitoring and evaluating the project that it is responsible for financing and implementing. Furthermore, by applying the correct financial management and implementing the quality improvement model in this field, the hospital can increase its income to a significant amount.

5.1. Conclusions

It seems that one of the reasons for the increase in the indicators of satisfaction with the quality of services of Yasuj hospitals was due to the modifications that occurred in the country's health system, which by reducing the patients' out-of-pocket payments and increasing their satisfaction with government hospitals, caused an increase in the hospital bed ratio, and this issue led to the excess capacity of institutions has been used in these centers. After the implementation of the transformation plan of the health system and the reduction of treatment costs, hospitals are facing an increase in patient visits and the bed occupancy rate, and due to the decrease in medical expenses, their satisfaction level has increased. Therefore, in the current study, the implementation of the health system plan has led to a reduction in people's payments and to reasonable access to health services and improved service quality. Such support requires the cost and provision of favorable conditions for physicians and providing suitable equipment and facilities for them. Therefore, medical centers should continuously evaluate the quality of their services, since improving the quality of medical services encourages patients to follow their treatment instructions correctly and on time, and accelerates the progress of treatments and achieves the main therapeutic goal of improving patients.

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