



Comparing the satisfaction of patients before and after the implementation of the healthcare reform in hospitals of Qazvin, 2015

Sahar Ali Asghari¹, Faeze Sahbaei^{2*} and Ebrahim Ebrahimi Abianeh³

¹Department of nursing, Tehran Medical Sciences Branch, Islamic Azad University, Tehran, Iran

²Department of nursing, Tehran Medical Sciences Branch, Islamic Azad University, Tehran, Iran

³Master of MBA, Department of Medical, Tehran Branch, Islamic Azad University, Tehran, Iran

*Corresponding Email: Fsaehbaei@sbmu.ac.ir

ABSTRACT

Preservation and promotion of health, which is an important asset, should be considered as the most important efforts of everyday life. The main goal of healthcare reform is to create health equity. This study aimed to compare the satisfaction of patients before and after the implementation the healthcare reform in hospitals of Qazvin .This study is a descriptive-comparative study conducted by evaluating the results of questionnaires completed by 204 patients admitted to hospitals affiliated to Qazvin University of Medical Sciences. The patients had to be admitted to the hospitals before the plan. The questionnaire was self-administered. In order to determine the scientific validity and reliability, test-retest method was used. The results were analyzed by statistical software SPSS20 and descriptive statistics (mean and standard deviation. In this study, data from 204 surveys were reviewed. After the implementation of the healthcare reform plan compared to before the implementation, satisfaction with admission unit ($p=0.001$), satisfaction with nursing service ($p=0.001$), physician ($p=0.00$), services ($p=0.002$), hoteling equipment ($p=0.005$), preparation of medicines and medical supplies ($p=0.00$), radiology ($p=0.01$), laboratory ($p=0.001$), satisfaction with discharge unit ($p=0.00$), and the cost of treatment ($p=0.00$) have increased. Given the echocardiography unit and patients with supplementary insurance, satisfaction with the cost of treatment did not change after the plan .According to the study, the implementation of healthcare reform increases patient satisfaction in the selected hospitals of Qazvin.

Keywords: Satisfaction, Healthcare Reform, Hospital.

INTRODUCTION

Implication for health policy makers/practice/research/medical education

Patient satisfaction feedback helps the healthcare provider to identify the potential for progress, which can improve system performance. Meanwhile Patient satisfaction survey helps authorities to find out strengths and weaknesses and try to eliminate weaknesses and promote strengths.

Background

Preservation and promotion of health, which is an important asset, should be considered as the most important efforts of everyday life. When patient are admitted to a hospital to receive services, they have values in mind based on which they evaluate staff behavior and clothing, structure, physical space, and hospital equipment. Therefore, satisfaction is the criteria for all activities and plans of hospital [1]. Patient satisfaction is important because it makes the patients participate in care and treatment. Satisfied patients participate more effectively and are show greater compliance with treatment. Dissatisfied patients are less likely to comply with doctors' instructions and proper use of medications and their process of recovery is slower than others [2].Patient satisfaction is one of the important goals of Ministry of Health and Medical Education of Iran. Satisfaction is described as patients' response to various aspects of the service experience [3]. Patient satisfaction feedback helps the healthcare provider to identify the potential for progress, which can improve system performance [4]. The main mission of the health system is to

promote health and to respond the needs of society. The rapid growth of health spending, expansion of new technologies, increasing the cost of medicines, lack of financial resources, an increase in chronic diseases, and various insurances are all challenging factors for the health care system of countries [5]. Like other health systems, Iran's health system faces the challenge of sharp rise in costs. Insurance organizations cannot handle the increased costs. Therefore, people will have to take the financial burden on their shoulders [6]. Ghiasvand, Shabaninejad [7] showed that 15.05% of patients were subject to catastrophic expenditures. In fact, the results indicated that insurance program in Iran did not have enough effect in reducing health care costs. Kavosi, Keshtkaran [8] showed that 14.2% of families faced catastrophic health expenditure. In fact, the researchers concluded that current system of financing health care in Iran could not support families against catastrophic health expenditure. Given the above problems, the need for healthcare reform was felt. Ministry of Health and Medical Education of Iran plays an important role as the main trustee of public health. The main goal of healthcare reform is to create health equity [9]. Healthcare reform plan has been implemented since May 5, 2014. The objectives followed by the government in the healthcare reform include respecting people; building trust; morale and vitality; and providing patients with centralized medical and therapeutic services so that all stages of diagnosis, treatment, and supply of medicine to patients are accomplished in a hospital [10]. The healthcare reform plan was implemented in hospitals affiliated to Qazvin University of Medical Sciences. Patient satisfaction survey helps authorities to find out strengths and weaknesses and try to eliminate weaknesses and promote strengths.

Objectives

This study aimed to compare the satisfaction of patients before and after the implementation healthcare reform in hospitals of Qazvin.

Patients and Methods

This study is a descriptive-comparative study aimed to compare patient satisfaction before and after implementing the healthcare system in hospitals of Qazvin. In this study, 204 patients were selected through convenient sampling. The sample size determined from cocran formula. $n = \frac{z^2 p(1-p)}{d^2}$ with confidence 95% and ratio of 0.5 and accuracy 0.07. The patients had to be admitted in the same hospitals before implementing the healthcare reform plan. Pediatric and psychiatric hospitals were excluded from sampling. According to have standards for getting into the research (be alert and they were able to communicate, age over 18 years, be literate, don't have psychological problems according to medical records).

The research instrument was a self-administered questionnaire. The validity of the questionnaire was verified by 10 faculty members of Islamic Azad University. The reliability was confirmed by test-retest method and Cronbach's alpha coefficients of 88%. At first after coming to the ward the purpose of the study for every patient by researcher or her assistant fully explained. Before completing the questionnaire patients were asked (Do before the implementation of healthcare reform plan have hospitalized in the same hospital or not) if they say NO, they were excluded from the study after obtaining consent. The questionnaire was completed by patients admitted to the hospital and they had to be hospitalized in that hospital before implementing the reform plan. Two questionnaires were given to patients before and after implementing the reform plan. Each questionnaire contained 39 items and in 9 issues about reception services (5 items), nurses (5 items), physicians (7 items), services (2 items), equipment and hoteling (9 items), medicine (1 items), radiology (4 items), laboratory (2 items), discharge unit (4 items). Demographic part contained 7 items. The answers of patients were analyzed on a 5-point Likert scale (very satisfied, satisfied, fairly satisfied, dissatisfied very dissatisfied). The results were analyzed via SPSS20 and presented in the form of tables and charts. In order to describe data, descriptive indicators (percent, mean, standard deviant) were used. The significant level was $P < 0.05$ (using paired sample t-test).

RESULTS

In this study, data from the survey of 204 patients were evaluated. Table 1 shows distribution of patients based on demographic characteristic. 95 patients (46.6%) were male and 109 (53.4%) were female. The highest age was in the range of 50-60 and 60-70 years (17.2%) and the lowest percentage (15.7%) was above 70 year. The highest percent of education level (38.2%) had under diploma and the lowest (5.9%) had bachelor's degree or higher. The highest percent of jobs (47.1%) were homemakers and the least (2%) were unemployed. The highest percent of marital status (71.6%) was married and the least percent (0.5%) was separated. The most frequent type of insurance (36.3%) was Social Security Insurance and the least percent (3.4%) was Armed Forces Insurance. The highest percent (25.5%) was in internal unit and the least percent (2%) was in departments of ophthalmology and pre-natal.

Table1. Distribution of patients based on demographic characteristic

Demographic character	F	Percent
Gender		
Male	95	46.6
Female	109	53.4
Age		
Under 30 years	43	21.1
30-40 years	29	14.2
40-50 years	30	14.7
50-60 years	35	17.2
60-70 years	35	17.2
Above 70 years	32	15.7
Education		
Uneducated	67	32.8
Under diploma	78	38.2
Diploma	33	16.2
Associate degree	14	6.9
Bachelor or higher	12	5.9
Job		
Employee	20	9.6
Worker	21	10.3
Homemaker	96	47.1
Retired	24	11.9
Self-employed	39	19.1
unemployed	4	2
Marital status		
single	19	9.3
Married	146	71.6
Divorced	7	3.4
Separated	1	0.5
Widow	31	15.2
Insurance		
Social security insur	74	36.3
Medical insurance	66	32.4
Armed forces insur	7	3.4
Supplementary insur	19	9.3
No insurance	3	1.5
Other insurance	35	17.1
total	204	100%

Patient satisfaction after healthcare reform plan

Table 2 shows the frequency responses of the patients after the healthcare reform plan. as, can be seen most of the satisfaction were from the supply of drugs(58.7%)and the status of the supply needed medical supplies(46.4%) and privacy and confidentiality of nurses(48%).the lowest satisfaction were the facilities available for relatives of patients (9.7%).

Table 2. The frequency responses of the participants after the health care reform plan (%)

	Very disagree	disagree	Relatively Agree	Agree	Very agree
Performance reception	1(0.5)	4(2)	13(6.3)	133(65.2)	53(26)
Behavior of the reception staff	1(0.5)	3(1.5)	15(7.3)	117(57.4)	68(33.3)
Instructions on arrival at hospital	1(0.5)	5(2.5)	47(23)	113(55.4)	38(18.6)
Giving information about coverage	3(1.5)	16(7.8)	50(24.6)	99(48.5)	36(17.6)
Wanting time for admission	4(2)	19(9.3)	37(18.1)	104(51)	40(19.6)
The respectful behavior of nurses	3(1.5)	4(2)	15(7.3)	102(50)	80(39.2)
The delivery of nursing services	4(2)	6(2.9)	28(13.7)	101(49.5)	65(31.9)
Privacy during examination by a nurse	4(2)	2(1)	16(7.8)	91(44.6)	91(44.6)
Privacy and confidentiality of nurses	3(1.5)	0(0)	12(5.9)	91(44.6)	98(48)
Attending nurses bedside in time of need	6(2.9)	5(2.5)	30(14.7)	106(52)	57(27.9)
Good behavior and respectful of doctors	2(1)	1(0.5)	14(6.9)	97(47.8)	89(43.8)
Education about the illness by a physician	4(2)	23(11.3)	56(27.6)	83(40.9)	37(18.2)
Respond to questions by the doctor	2(1)	5(2.5)	28(13.8)	115(56.6)	53(26.1)
Privacy during examination by a doctor	3(1.5)	2(1)	28(13.8)	100(49.2)	70(34.5)
Access to a doctor or his successor if needed	3(1.5)	7(3.4)	37(18.2)	99(48.8)	57(28.1)
How visits to doctors	3(1.5)	4(2)	24(11.8)	109(53.7)	63(31)
Privacy and confidentiality by doctors	2(1)	2(1)	15(7.4)	97(47.7)	87(42.9)
Courtesy of staff of servants	6(2.9)	3(1.5)	21(10.3)	88(43.1)	86(42.2)
The cleaning and hygiene sector	6(2.9)	5(2.5)	42(20.6)	78(38.2)	73(35.8)
Status bathrooms and toilets	6(2.9)	14(6.9)	38(18.6)	92(45.1)	54(26.5)

Heating and cooling status	1(0.5)	4(2)	29(14.2)	113(55.4)	57(27.9)
The patient room environment	1(0.5)	26(12.7)	47(23)	77(37.8)	53(26)
Status of hospital beds and mattresses	1(0.5)	2(1)	22(10.7)	93(45.6)	86(42.2)
The amenities section	4(2)	15(7.4)	39(19.1)	95(46.5)	51(25)
The facilities available for relatives of patients	18(9.2)	41(21)	58(29.7)	59(30.4)	19(9.7)
The status of the supply needed Medical supplies	0(0)	2(1.3)	14(9.3)	65(43)	70(46.4)
The quality and variety of hospital food	11(5.4)	15(7.4)	57(27.9)	82(40.2)	39(19.1)
Establishment of adequate peace and tranquility	6(2.9)	13(6.4)	38(18.7)	90(44.1)	57(27.9)
The supply of drugs	3(1.5)	4(2)	6(3)	70(34.8)	118(58.7)
The performance of radiology unit	0(0)	1(0.6)	10(6.1)	102(62.5)	50(30.7)
Of personal privacy by radiologists	0(0)	2(1.2)	12(7.4)	99(60.7)	50(30.7)
Echocardiography unit performance	1(1)	2(1.9)	9(8.6)	66(63.5)	26(25)
Personal privacy during echocardiography	1(1)	1(1)	14(13.7)	59(57.8)	27(26.5)
The performance of lab	0(0)	0(0)	20(10.5)	85(44.5)	86(45)
From the catching blood	0(0)	1(0.5)	19(9.9)	96(50.3)	75(39.3)
The staff dealing clearance	0(0)	0(0)	5(2.5)	125(62.5)	70(35)
The performance and guidance office clearance	1(0.5)	0(0)	18(9)	146(73)	35(17.5)
Waiting time for clearance procedures achieved	1(0.5)	19(9.5)	43(21.5)	109(54.5)	28(14)
Current payment for the cost of treatment	7(3.4)	3(1.5)	18(8.8)	135(66.2)	41(20.1)

Patient satisfaction before health care reform plan

Table 3 shows the frequency responses of the patients before the healthcare reform plan. As can be seen most of satisfaction were from privacy and confidentiality by doctors(36.9%) and by nurses(35.3%). The lowest satisfaction were instructions on arrival at hospital(6.9%) and giving information about coverage(6.9%) and payment for the cost of treatment(7.9%).

Table 3. The frequency responses of the participants before the health care reform plan (%)

	Very disagree	disagree	Relatively Agree	agree	Very agree
Performance reception	4(2)	7(3.4)	35(17.2)	137(67.2)	21(10.2)
Behavior of the reception staff	4(2)	8(3.9)	30(14.7)	129(63.2)	33(16.2)
Instructions on arrival at hospital	7(3.4)	14(6.9)	65(31.8)	104(51)	14(6.9)
Giving information about coverage	8(3.9)	35(17.1)	54(26.5)	93(45.6)	14(6.9)
waiting time for admission	9(4.4)	34(16.7)	40(19.6)	103(50.5)	18(8.8)
The respectful behavior of nurses	3(1.5)	3(1.5)	34(16.7)	118(57.8)	46(22.5)
The delivery of nursing services	3(1.5)	2(1)	47(23)	112(54.9)	40(19.6)
Privacy during examination by a nurse	3(1.5)	2(1)	34(16.6)	103(50.5)	62(30.4)
Privacy and confidentiality of nurses	2(1)	3(1.5)	29(14.2)	98(48)	72(35.3)
Attending nurses bedside in time of need	2(1)	8(3.9)	56(27.5)	101(49.5)	37(18.1)
Good behavior and respectful of doctors	10(4.9)	9(4.4)	27(13.2)	100(49)	58(28.5)
Education about the illness by a physician	19(9.3)	45(22.1)	75(36.8)	47(23)	18(8.8)
Respond to questions by the doctor	10(4.9)	12(5.9)	58(28.4)	91(44.6)	33(16.2)
Privacy during examination by a doctor	11(5.4)	11(5.4)	45(22)	92(45.1)	45(22.1)
Access to a doctor or his successor	11(5.4)	17(8.2)	55(27)	86(42.2)	35(17.2)
How visits to doctors	12(5.9)	9(4.4)	41(20.1)	108(52.9)	34(16.7)
Privacy and confidentiality by doctors	9(4.4)	6(3)	26(12.8)	87(42.9)	75(36.9)
Courtesy of staff of servants	1(0.5)	3(1.5)	36(17.6)	106(52)	58(28.4)
The cleaning and hygiene sector	0(0)	15(7.3)	55(27)	92(45.1)	42(20.6)
Status bathrooms and toilets	5(2.5)	35(17.2)	72(35.2)	71(34.8)	21(10.3)
Heating and cooling status	1(0.5)	27(13.2)	79(38.7)	72(35.3)	25(12.3)
The patient room environment	5(2.5)	48(23.5)	64(31.4)	68(33.3)	19(9.3)
Status of hospital beds and mattresses	3(1.5)	39(19.1)	71(34.8)	71(34.8)	20(9.8)
The amenities section	6(2.9)	33(16.2)	81(39.7)	64(31.4)	20(9.8)
The facilities available for relatives of patients	33(17.1)	51(26.4)	40(20.8)	51(26.4)	18(9.3)
The status of the supply needed Medical supplies	5(3.3)	23(15)	51(33.3)	59(38.6)	15(9.8)
The quality and variety of hospital food	10(4.9)	45(22.1)	48(23.5)	65(31.9)	36(17.6)
Establishment of adequate peace and tranquility	3(1.5)	7(3.4)	48(23.6)	108(52.9)	38(18.6)
The supply of drugs	8(4)	50(25.3)	58(29.3)	62(31.3)	20(10.1)
The performance of radiology unit	1(0.6)	2(1.2)	16(9.9)	122(75.3)	21(13)
Of personal privacy by radiologists	1(0.5)	1(0.5)	21(13.2)	115(71.9)	22(13.9)
Echocardiography unit performance	1(1)	2(2)	13(13.1)	70(70.8)	13(13.1)
Personal privacy during echocardiography	1(1)	1(1)	20(20)	62(62)	16(16)
The performance of lab	0(0)	0(0)	32(17.2)	110(59.1)	44(23.7)
From the catching blood	1(0.5)	0(0)	33(17.7)	112(59.9)	41(21.9)
The staff dealing clearance	0(0)	3(1.5)	20(9.8)	122(59.8)	59(28.9)
The performance and guidance office clearance	0(0)	7(3.4)	51(25)	114(55.9)	32(15.7)
Waiting time for clearance procedures achieved	3(1.5)	38(18.6)	44(21.6)	89(43.6)	30(14.7)
previous payment for the cost of treatment	37(18.2)	50(24.7)	65(32)	35(17.2)	16(7.9)

According to the results after implementing the healthcare reform plan (Table 4), satisfaction with admission unit increased ($p=0.001$). Satisfaction with nursing services increased as well ($p=0.001$). In addition, there was a significant difference between satisfaction with physician before and after implementing the healthcare reform ($p=0.001$) and the satisfaction was higher after implementing the plan. Satisfaction with service forces increased after reform (0.002). Satisfaction with equipment and hoteling increased after reform due to purchasing modern equipment and reconstruction of hospitals ($p=0.005$). Satisfaction with preparation of medicines and medical supplies was higher after reform ($p=0.00$). Satisfaction with radiology unit also increased after reform ($p=0.01$). However, there were no significant differences in terms of echocardiography services ($p=0.52$). In terms of laboratory services, satisfaction was higher after implementing the plan ($p=0.001$). Satisfaction with discharge unit also increased after implementing the plan ($p=0.001$). In addition, there was a significant difference between patient satisfaction before and after implementing the plan in terms of payment for the cost of treatment ($p=0.001$). After the plan (86.6%) of patient satisfaction with the cost of treatment were agree and very agree. However, patients with supplementary insurance had the same satisfaction level in term of payment for the cost of treatment ($p=0.14$).

Table4. Mean and standard deviation of patients' Satisfaction before and after implementing healthcare reform plan

Reform	Admission	Nurse	Physician	Services	Hoteling	Medicine	Radiology	Laboratory	Discharge
Before	3.59±0.76	3.9±0.69	3.6±0.87	3.9±0.69	3.3±0.74	3.18±1	4±0.52	4±0.59	3.5±0.64
After	3.95±0.65	4.2±0.7	4.1±0.65	4.1±0.84	3.74±0.66	4.47±0.77	4.2±0.53	4.3±0.59	4.02±0.46
P. value	0.001	0.001	0.001	0.002	0.005	0.001	0.01	0.001	0.001

DISCUSSION

This study is a descriptive-comparative study to compare satisfaction of patients admitted to hospitals affiliated to Qazvin University of Medical Sciences before and after implementing healthcare reform. In this study, 204 patients were selected by convenient sampling method. In order to assess satisfaction level, a self-administrative questionnaire was used. In this study, satisfaction with admission unit increased after reform. Khursheed, Fayyaz [11] showed high satisfaction with waiting time for admission to the emergency bed [68.8%]. Karimi, Masoodian [12] showed poor satisfaction with admission unit, which is in contrast to the results of present study. In this study, satisfaction with nursing services increased after implementing the reform. Nemati, Mohammadnejad [13] showed dissatisfaction with nursing services to be 72.3%. In a study by Hojat and Imanian [1], the highest satisfaction level was related to patients being respected by nurses. Joolae, Hajibabae [14] showed average patient satisfaction [72%] with nursing services: 14. According to the results of this study, satisfaction with physician increased after the healthcare reform plan. Soleimanpour, Gholipouri [15] showed the highest satisfaction was with physician [86.6%]. Cheraghi, Barzegari [16] showed the highest satisfaction with physician [85%]. In this study, satisfaction with timely access to a doctor or his successor and satisfaction with doctor visit increased after the healthcare reform. In order to explain this, we can say that based on healthcare reform plan, the plan of resident physician at the hospitals affiliated to Ministry of Health and Medical Education has been implemented and hospitals have resident physician or senior assistant leading to increased access to physician and enhanced visit quality. Ahmadi, Faridalaee reported satisfaction with attending physician rate at the patient bedside on arrival at the emergency department [69.4%] and satisfaction with visit and providing treatment information by the physician [69.2%] to be high and very high [17]. In this study, satisfaction with services unit increased after the healthcare reform. Salami, Samouei showed satisfaction with services unit to be 87.5% [18]. According to the results of this study, satisfaction with equipment and hoteling increased. This might be because many old hospitals have been reconstructed after the plan. Moreover, beds, mattresses, and equipment of many hospitals were replaced and modern equipment was provided for hospitals. Jahromi, Khammarnia [19] indicated that paying attention to food quality led increased satisfaction. Salami and Samouei [18] also showed satisfaction with welfare status [78.4%] and feeding [74.2%]. In the study by Karimi, Masoodian [12], the score of satisfaction with public and welfare services was 55.2%. Satisfaction with pharmacy unit increased after the plan. This could be because hospital pharmacies were equipped after the plan and referring the companions of patients to supply drugs and medical supplies outside the hospital was prevented. The highest score in the study by Khayeri, Goodarzi [9] was due to lack of drugs and equipment for patient outside the hospital. In this study, satisfaction with radiology unit increased after the healthcare reform. However, there was no change in patient satisfaction with echocardiography unit after the healthcare reform. Patient satisfaction with laboratory services also increased after the healthcare reform. In order to explain this, we can say that referring the companions of patients to take test samples to laboratories outside the hospital was prevented after implementing the plan. Ahmadi, Faridalaee indicated that 52.8% of patients expressed high and very high satisfaction with timely imaging and urgent tests [17]. According to this study, patient satisfaction with discharge unit also increased after the plan. In addition, satisfaction with payment for the cost of treatment increased after the plan. In order to explain this, we can say that all patients with no insurance could have Health Insurance after the plan. In addition, medical expenses for individuals qualified with insurance decreased to 6% and for individuals with rural insurance to 3%. However, the present study showed that people with Supplementary Insurance had no much difference before and after the plan in

terms of satisfaction with payment for the cost of treatment. Finally, the results of this study are consistent with a study conducted in mazandaran by goudarzian, sharif Nia[20]. The patient satisfaction level was found to be good in majority of the participants[50.2%] after healthcare reform plan. However, this study is in contrast with the study by Hashemi, Baratloo [21]. According to this researcher, satisfaction with providing education before discharge, hospital rooms' state, toilets cleanness, timely physician visit, and spending time and accuracy after healthcare reform plan decreased significantly in the selected hospital. In the end, the researcher concluded that healthcare reform system implemented in May 5, 2014, increased patient satisfaction in the selected hospitals of Qazvin. Since Ministry of Health and Medical Education attempted to implement the healthcare reform, the results of the study provide an opportunity for strategic reforms by recognizing the problem. Recognizing strengths and more accurate planning to better guide the changes and to maintain the achievements will contribute a lot.

Acknowledgment

The authors thank especially Mr. Bigdellou and Ms. Tavasoli as well as nursing staff of the selected hospitals. It is worth mentioning this article was adapted from master's thesis of Ms. Sahar Ali Asghari, master student of medical surgical nursing, Islamic Azad University of Tehran.

REFERENCES

- [1] Hojat M, Imanian M. Admitted patient satisfaction evaluation in a teaching hospital affiliated to Jahrom University of medical science during 2005, 2007 and 2008. *Jentashapir Sci Medj*. 2013;121-8.
- [2] Moosazadeh M, Nekoei-moghadam M, Amiresmaili M. Determining the level of hospitalized patient's satisfaction of hospitals: A systematic review and meta-analysis. *Hospital Journal*. 2012; 12 (1):77-87.
- [3] Schoenfelder T, Klewer J, Kugler J. Determinants of patient satisfaction: a study among 39 hospitals in an inpatient setting in Germany. *International Journal for Quality in Health Care*. 2011;23(5):503-9.
- [4] Kleefstra S, Kool R, Veldcamp C, Winters-vandermeer A, Mens M, Blijham G. A core questionnaire for the assessment of patient satisfaction in academic hospitals in the Netherlands: Development and first results in a nationwide study. *Quality Safely Health Care* 2010;19:24-9.
- [5] Davari M, Haycox A, Walley T. The Iranian health insurance system; past experience, present challenges and future strategies. *Iranian J Public Health*. 2012;41(9):1-9.
- [6] Bagheri P. Introduction to management equity in the Iranian health system with physician-center approach. *Health In Manage*. 2014;11(3):377-91.
- [7] Ghiasvand H, Shabaninejad H, Arab M, Rashidian A. Hospitalization and catastrophic medical payment: evidence from hospitals located in Tehran. *Arch IRAN Med*. 2014; 17(7):507-13.
- [8] Kavosi Z, Keshtkaran A, Hayat R. Household financial contribution to the health system in Shiraz, IRAN in 2012. *Int J Health Policy Manag*. 2014;3(5):243-9.
- [9] Khayeri F, Goodarzi L, Meshkini A, Khaki E. Assessment of the role of health system reform plan in franchise reduction for patients referred to university hospitals in Iran. *Client Centered Nursing Care*. 2015;1(2):71-6.
- [10] Education MoHaM. Ministry of Health and Medical Education, Health Reform Plan Health Instruction, prepared by Ministry of Health and Medical Education Tehran, IRAN 2014.
- [11] Khursheed M, Fayyaz J, Zia N, Feroze A, Jamil A, Baqir M. Real-time patient satisfaction of emergency department services in a tertiary-care hospital in Karachi, Pakistan. *Emergency Med*. 2014;4(3):1-6.
- [12] Karimi S, Masoodian Y, Yaghoubi M, Hosseini M, Sadeghifar J. Patient satisfaction with provided service and facilities in educational hospital of Isfahan, Iran, from admission to discharge. *Health information management*. 2013;9(6):780-5.
- [13] Nemati F, Mohammadnejad E, Tabatabaei A, Ehsani S, Sajjadi A, Hajiesmaeilpoor A. Satisfaction rate of hospitalized patient in teaching hospitals with presented service. *J Med Ethic*. 2014;7(28):29-50.
- [14] Joolae S, Hajibabae F, Jafar E, Jalal E, Bahrani N. Assessment of patient satisfaction from nursing care in hospitals of Iran University of medical sciences. *J Of Faculty Of Nursing And Midwifery*. 2011;17(1):35-44.
- [15] Soleimanpour H, Gholipouri C, Salarilak S, Raoufi P, Vahidi R, Rouhi AJ. Emergency department patient satisfaction survey in Imam Reza hospital, Tabriz, Iran. *International Journal of Emergency Medicine*. 2011;4(2):1-7.
- [16] Cheraghi A, Barzegari H, Ahmadynejad H, Khagoei S. Emergency department patient Satisfaction survey in Golestan hospital, Ahvaz, in 2010-13. *Applied Mathematics In Engineering, Management And Technology*. 2014:387-91.
- [17] Ahmadi S, Faridaalae G, Rahmani S, Taghavi F. The patients' satisfaction of emergency wards function of Imam Khomeini educational and treatment center. *The Journal of Urmia University of Medical Sciences*. 2015;26(3):205-14.
- [18] Salami S, Samouei R. Assessment of patient satisfaction from health services in educational hospitals of Isfahan, Iran. *Health Information Management*. 2012;8(8):1097-103.

- [19] Jahromi MG, Khammarnia M, Jafari A, Sotodehzadeh F. Investigation of food services quality in hospitals and strategies for its improvement. *Sadra M Sci J.* 2014;2(2):185-96.
- [20] Goudarzian AH, Sharif Nia H, Jafari H, Jamali S, Badiee M, Sayemi Z, et al. Inpatient satisfaction with health system transformation project in Mazandaran Educational Hospitals, IRAN. *J Mazandaran Univ Med Sci.* 2016;26(136):190-195.
- [21] Hashemi B, Baratloo A, Forouzafar M, Motamedi M, Tarkhorani M. Patient satisfaction before and after executing Health sector evolution plan. *Iranian J of emergency medicine.* 2015;2(3):127-33.