

PATIENT SATISFACTION WITH MEDICAL SERVICES PROVIDED BY A HOSPITAL IN KERMAN-SHAH- IRAN

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ABSTRACT

Background and aim: patient satisfaction is a significant indicator of the quality of provided care and services. The present study was an attempt to investigate the patient satisfaction with medical services provided by one of the hospitals in Kermanshah, Iran.

Materials and methods: in this descriptive cross-sectional study, 406 inpatients were randomly selected and included in the study. The instrument for data collection comprised of a standard "patient satisfaction" questionnaire. The collected data were analyzed by descriptive statistics and inferential statistics (independent t-test and ANOVA).

Results: the mean score of the patients' total satisfaction with inpatient services was 3.49 out of 5. The maximum and minimum levels of satisfaction were reported for the domains of behavior of medical and administrative staff (3.65 ± 0.96) and environmental hygiene of hospital (3.26 ± 0.73). The patients' total satisfaction was different in terms of gender and age variables; however, it was not statistically significant in terms of education, career, residence, inpatient ward and reason of patient's referral.

Conclusion: although the patients' total satisfaction with inpatient services was favorable, the patients were dissatisfied with hospital facilities. Hospital managers can proceed to increase the patient satisfaction with medical services by eliminating the factors causing dissatisfaction.

Key words: Satisfaction, inpatients, medical services.

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Introduction

Satisfaction is a concept that emerged in medical centers in 1950⁽¹⁾. Satisfaction is the patients' general understanding of the quality of provided healthcare services⁽²⁾. On the other hand, satisfaction can be assumed as the reaction of the receiver of the services to the provided services, which reflects his/her general understating of the quality of services⁽³⁾. Patient satisfaction is important as it will result in patients' participation in healthcare and treatment affairs⁽⁴⁾. Nowadays, patient satisfaction in health centers is recognized as a key indicator reflecting the efficiency of the organization^(5,6).

Various studies have investigated the patient satisfaction with medical and nursing services^(7,8,9,10,11). Analyzed the patient satisfaction with the quality of services provided at the emergency department of the hospitals, and the obtained results ranged from low satisfaction to high satisfaction. Further, the findings of the studies investigating the factors associated with patient satisfaction indicate different variables, the most important of which are physician services and admission process⁽⁵⁾, medical care^(12,13,14-15), care style, hospital environment and hospital facilities⁽⁸⁾ and medical and nursing services and facilities^(16,1,17,18).

Given the importance of knowledge about inpatients' satisfaction and its role in promotion of the quality of healthcare services and given the lack of information about the satisfaction level of patients visiting different wards of Imam Reza hospital, the researchers made an attempt to study the satisfaction level of inpatients at different wards of Imam Reza hospital and to identify the factors associated with patient satisfaction. The results of the present study are hoped to contribute to promoting the medical and nursing services in healthcare centers.

Methods

The present research was descriptive cross-sectional. The study sample was calculated to be 406 patients according to the patient satisfaction ratio ($p=0.5$), maximum level of error ($d=0.5$) and confidence level of 0.95 ($1-\alpha$). The samples were selected from the inpatients that had been hospitalized for 24-72 hours at different wards of Imam Reza hospital through simple random sampling. The samples were chosen from all medical and surgical wards except pediatrics, emergency and intensive care departments. Sampling was performed during the first three-month period in 2014.

The tool for data collection was a two-section questionnaire. The first section included demographic characteristics (gender, age, and education, reason for referral, inpatient ward, insurance status, career and residential area) and the second section of the questionnaire was about patient satisfaction, which had previously been prepared by⁽¹⁹⁾. The validity of the given questionnaire was confirmed via content validity and its reliability was calculated by Cronbach's alpha ($\alpha=0.89$), enjoying an acceptable index⁽¹⁹⁾. Moreover, in the current study, the validity of the questionnaire was reanalyzed and approved by 12 faculty members who were experts in the field of patient satisfaction, and the reliability index obtained was 0.91 calculated by Cronbach's alpha.

The patient satisfaction questionnaire comprised of 28 items that measured patient satisfaction in seven domains. These dimensions included physical facilities (6 items), environmental health (3 items), specialized services (4 items), care (5 items), administrative services (5 items) and behavior (5 items). Each item was scored based on 5-point Likert scale; score of 5 for very good and score of 1 for very bad responses.

According to the total scores obtained from the questionnaire, the patients were classified into dissatisfied (≤ 49), moderately satisfied (50-74) and completely satisfied (75-100).

Having gotten permission from deputy of research and technology of university and the hospital authorities, the researcher visited the inpatient wards of the given hospital at different hours to collect the data. First, the objectives of the study were fully explained to the samples, confidentiality of the collected data concerning personal information and the responses to questions was ensured and informed consent was taken. Then, the questionnaires were given to the samples to complete. In case of the patient's inability to complete the questionnaire such as illiteracy or involvement of the hands, the questionnaire was completed through interview.

The collected data were analyzed by SPSS-18 software using descriptive statistics (frequency (%), mean and standard deviation) and inferential statistics (t-test and ANOVA). To compare the patient satisfaction scores, independent t-test was used for two-state qualitative variables (gender and place of residential location) and ANOVA test was used for ordinal quantitative variables (age, education) and multiple qualitative variables (reason of referral and career). $P<0.05$ was considered significant.

Results

From the total 406 patients, 228 (56.2%) patients were male and 178 (43.8%) patients were female. The mean and standard deviation of the samples age was 37.8 ± 13.3 and the age group of 21-30 obtained the highest frequency (32.3%, 131). In terms of education, 131 (32.3%) patients had diploma and 104 (25.6%) patients had junior high school education. 106 patients (26.1%) were housewives and 89 (21.9%) patients were self-employed. 318 (78.3%) were city dwellers. With regard to type of referral to hospital, 332 (81.8%) samples were inpatients, 51 (12.6%) were emergency patients and 23 (5.7%) of them were outpatients. 241 (59.4%) patients were hospitalized in internal ward and the rest (40.6%) were hospitalized in the surgical ward. 368 (90.6%) samples were under insurance coverage (Table 1).

The patients' total satisfaction with medical services was 3.49 out of 5. The maximum and minimum levels of satisfaction were reported for behavior of medical and administrative staff (3.65 ± 0.96)

and environmental hygiene (3.26 ± 0.73) (Table 2). From among the 19 items related to patient satisfaction, the maximum level of satisfaction was reported for physicians' behavior in the ward (3.74 ± 1.07) and appropriate nursing services (3.67 ± 1.1). The minimum level of satisfaction, however, was reported for facilities in the ward (2.87 ± 1.14).

Variables	Groups	No (%)
Gender	Male	(56.2)228
	Female	(43.8)178
Age (years)	20 \geq	(7.6)31
	30 - 21	(32.3)131
	40-31	(29.6)120
	50 - 41	(12.8)52
	60- 51	(9.6)39
	61 \leq	(8.1)33
	Illiterate	(16)65
Education	Junior high school	(25.6)104
	Diploma	(32.3)131
	Associate degree	(7.1)29
	Bachelor degree	(16)65
	Master degree	(3)12
Career	Employee	(18)73
	Self-employed	(20.7)84
	Worker	(9.1)37
	Retired	(7.6)31
	Housewife	(26.1)106
	Unemployed	(15.3)62
	Student	(2)8
	Residence	City
Village		(21.7)88

Table 1: Demographic Characteristics of participants.

The patients' satisfaction in all domains was significantly different in terms of gender and age variables, so that women had less satisfaction than men (score of 3.3 vs 3.5, $p < 0.05$). The age groups of 50-60 and 20-30 years had the maximum and minimum levels of satisfaction, respectively (score of 3.2 vs 3.8, $p < 0.05$). Moreover, no significant difference was reported for patient satisfaction with regard to education, career, residence, inpatient ward and reason of referral (Table 2).

Discussion

The evaluation of satisfaction level of inpatients in various domains revealed the maximum mean for domains of behavior of physicians in wards and providing appropriate nursing services. The minimum level of satisfaction, however, was reported for the domain of facilities of hospital wards. The patients' total satisfaction with inpatient services was reported to be good, which is in line with the results of the studies conducted by^(20,14,21,22,23).

In the current research, the patients' satisfaction with physical facilities was at a moderately good level. The maximum and minimum levels of satisfaction in this domain were reported for heat/cold system and facilities of the ward, respectively. The results of the present study are in line with those reported by^(20,11,24,25). The results of current research indicated lower level of satisfaction with facilities compared with other domains of satisfaction, which can be due to inadequate attention to hoteling in the hospital. Recently, the Iranian ministry of health has carried out comprehensive programs to increase the patients' satisfaction, the most important of which is the hoteling of hospitals.

The findings of the current study showed unfavorable level of satisfaction regarding the environmental hygiene of the hospital. The maximum and minimum levels of patient satisfaction in this domain were reported for cleanliness of facilities and status of toilets. These findings are in agreement with the results of the studies by^(20,5,26,27,25,25). The service department of the hospital can play a pivotal role to eliminate the patients' dissatisfaction factors by taking measures such as employment of more service workers and tighter supervision over their performance.

The results of the current study showed that the patient satisfaction with specialized services was at a favorable level. The maximum and minimum levels of satisfaction were related to the domains of nursing services and quick access to nursing staff. These results are in line with the findings of the studies conducted by^(7,14,20,29,30,31,32). The authors believe that insufficient number of nurses at hospital wards can be an important factor affecting the patient satisfaction. Although in the recent years recruitment of nurses has been increased in the country, shortage of nursing staff is still one of the challenges of health system in Iran due to the large number of patients visiting the hospitals.

Satisfaction domains		Satisfaction level						
		No idea	Very bad	Bad	Average	Good	Very good	score
Physical facilities	Heat/cold system		2.6)25	9.7)32	(3.27)111	(8.44)182	(8.13)56	02.1±52/3
	Discipline	1(.2)	(1.7)29	(5.13)55	(8.27)113	(5.36)148	(8.14)60	14.1±39/3
	Facilities of hospital wards	-	(8.14)60	(9.21)89	(8.32)133	(7.21)88	(9.8)36	17.1±87/2
	Modern medical equipment in emergency department	3(.7)	(4.6)26	(3.14)58	(2.36)147	(8.13)129	(6.10)43	14.1±30/3
	Modern medical equipment in wards	6(1/5)	(7.5)23	(3.11)46	(9.36)150	(2.34)139	(3.10)42	20.1±41/3
	Transportation system	1(.2)	(9.6)28	(1.1145 ((1.29)118	(9.36)150	(8.15)64	12.1±45/3
	Total mean	89.0±31.3						
Environmental hygiene of hospital	Environmental hygiene	1(.2)	(1.8)33	(1.13)53	(1.29)118	(2.35)143	(3.14)58	15.1±35/3
	Toilets	1(.2)	(5.13)55	(3.16)66	(3.30)123	(1.29)118	(6.10)43	22.1±08/3
	Cleanliness of facilities	-	(1.8)33	(3.12)50	(3.29)119	(7.35)145	(5.14)59	12.1±36/3
	Total mean	3/26±0/73						
Special services	Waiting time for initial examination by medical staff	1(.2)	(9.6)28	(5.13)55	(9.24)101	(9.42)17	(6.11)47	11/1±40/3
	Nursing services	-	(9.7)32	(6.7)31	(17)69	(6.44)181	(9.22)93	1/1±67/3
	quick access to medical staff	1(.2)	(9.7)32	(6.10)43	(6.25)104	(1.40)163	(5.15)63	14/1±46/3
	quick access to nursing staff	-	(4.7)3	(4.9)38	(5.19)79	(8.43)178	(20)81	12/1±59/3
	Total mean	01.1±53.3						
Medical and nursing care	Skill and expertise of emergency physicians	4(1)	(6.7)3	(1.9)37	(9.22)93	(1.44)179	(3.15)62	22.1±56.3
	Physicians' care for the patients		(1.7)29	(1.8)3	(7.20)84	(1.43)175	(9.20)85	11.1±62.3
	Skill and expertise of nursing staff	1(.2)	(7.5)23	(8.10)44	(4.20)83	(8.45)186	(17)69	10.1±59.3
	Nursing staff's care for the patients	1(.2)	(4.8)34	(4.9)38	(7.19)80	(8.43)178	(5.18)75	17.1±56.3
	Quick access to par clinical services	4(1)	(1.7)29	(3.10)42	(2.18)74	(6.45)185	(7.17)72	23.1±62.3
	Total mean	06.1±60.3						
Administrative services	Quick and easy admission process and administrative affairs		(6.9)39	(1.8)33	(1.24)98	(4.42)172	(8.15)64	14.1±46.3
	Appropriate guidance during admission process	1(.2)	(6.9)39	(4.7)30	(9.23)97	(9.42)174	(16)65	17.1±49.3
	Behavior of admission staff	3(.7)	(4.7)30	(4.7)30	(9.23)97	(3.44)180	(3.16)6	17.1±59.3
	Appropriate guidance by hospital staff	1(.2)	(7.6)27	(6.8)35	(9.21)89	(1.40)163	(4.22)91	15.1±64.3
	Guidance by hospital security guards	1(.2)	(9.8)36	(1.8)33	(4.22)91	(1.41)167	(2.19)78	90.1±61.3
	Total mean	03.1±56.3						
Medical and administrative staff behavior	Behavior of emergency physicians		(7.6)27	(9.7)32	(17)69	(8.46)190	(4.21)87	12.1±69.3
	Behavior of wards' physicians	1(.2)	(9.5)24	(1.7)29	(7.16)68	(3.46)188	(6.96)23	07.1±74.3
	Behavior of nursing staff	1(.2)	(6.7)31	(4.9)38	(8.13)56	(47)191	(2.22)90	14.1±66.3
	Behavior of administrative staff		(2.6)25	(4.9)38	(4.21)87	(6.45)185	(2.17)70	10.1±59.3
	Behavior of security staff	1(.2)	(7.6)27	(9.9)40	(5.18)75	(5.48)197	(5.16)67	08.1±58.3
	Total mean	96.0±65.3						

Table 2: Mean and standard deviation for satisfaction domains of inpatients.

In the present study, most of the inpatients were much satisfied with medical and nursing care. In the domain of medical and nursing care, the maximum level of patient satisfaction was reported for physicians' care for the patients and quick access to par clinical services. The minimum level of satisfaction, however, was reported for skill and expertise of emergency physicians and nursing staff's care for the patients. These findings confirm the results of the studies by by^(33,34,28,35,36,37). The authors believe that in recent years patients have been much informed of their rights, which can have an impact on their satisfaction. On the other hand, lack of nurses and specialists, which is one of the challenges of current health system in Iran, definitely affects the patient satisfaction.

In the current research, the patients' satisfaction with administrative services was good. The maximum and minimum levels of satisfaction were observed in the domains of appropriate guidance by the hospital staff and easy and quick admission and administrative process, respectively. These results are in line with the findings⁽²⁸⁾. The admission unit of the hospital is the first unit that the patient encounters. Certainly, high workload and lack of administrative staff in this unit can cause patient dissatisfaction.

Moreover, the patient satisfaction with medical and administrative staff was high. The highest and lowest means of patient satisfaction were reported for the behavior of ward physicians and behavior of security guards, respectively. These findings are in agreement with the results of the studies carried out by^(35,5,38). Given the daily contact of the patients with hospital security staff, briefing and training courses are recommended to be held for the security staff and those with high public relations are suggested to be used in this unit. In addition, the male satisfaction was higher than the female, which is in agreement with the results of the studies by^(39,40,41,42,43). This draws the attention of managers to fulfilling the satisfaction of this group of patients.

Furthermore, the current study showed the highest level of satisfaction with medical services for the age group 50-60, which confirms the results of the studies performed by^(44,42,45,46). The authors tend to think that people's expectation is reduced by age increase, and they deal with new conditions and forthcoming problems more flexibly.

Finally, the findings of this study indicated no significant different in patient satisfaction with regard to education, career, inpatient wards, insur-

ance status and residence variables. However, some studies have demonstrated different levels of patient satisfaction in terms of variables like inpatient ward^(47,34) education^(1,48), career^(49,50,51), insurance^(52,25) and residence^(53,54).

In the present study the data were collected through self-report, which may have affected the accuracy of the results. Based on the above shortcomings, similar studies are suggested to be carried out in other state and private hospitals.

Conclusion

The results of the current research were indicative of inpatients' favorable satisfaction with medical services provided to them. The maximum level of satisfaction was reported for the domains of behavior of emergency physicians and appropriate nursing services and the minimum level of satisfaction was reported for facilities of hospital wards. Further, patient satisfaction level in terms of gender and age variables was significant, but it was not significant with regard to education, career, inpatient ward, insurance and residence variables. Based on the obtained results, hospital managers can take specific measures to promote patient satisfaction by removing the elements causing dissatisfaction.

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