

Assessment Hospital Services Quality and Satisfaction from Patients' Point of View: A Cross-sectional Study

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Abstract: Patient satisfaction is a concept, which is receiving increasing attention in medical care. It is important as both a dependent and an independent variable. It represents the patient evaluation of the structure, process and outcome of their care and it is a predictor of patient behaviors such as utilization of care, continuous relation with care provider and compliance. In a cross-sectional study 1200 patients in first day of admission with simple random in the hospital in Arak (Iran) in 2012 selected. Data collected with validity and reliability questionnaire about patient satisfaction with the adoption process, including the satisfaction of the physical environment, functioning as admission, fund performance and condition of admission, the waiting time for admission, management staff performance and others were assessed. The data were analyzed using the Kruskal-Wallis and Mann-Whitney and Spearman correlation test. In this study, 53.3% of participant was female patients and 76 % of patients had health insurance. The mean satisfaction score of physical condition was 23.3 ± 9.7 , performance of admitted section 30.7 ± 12.2 , performance of fund section 14.1 ± 8.1 and satisfaction of admission in ward hospitalization 12.9 ± 5.4 was observed. In this study, between of the satisfaction with age ($p=0.51$), status of insurance coverage ($p=0.20$), hospital type ($p=0.46$) and the patient's location ($p=0.62$), there was no significant relationship. But between of the satisfaction and the level of education ($p=0.04$), gender of the patients ($p=0.04$), marital status ($p=0.03$), history of hospitalization ($p=0.02$) and the type of ward ($p=0.03$) was significant relationship. In this study, satisfaction in women, married patient, patient who had previously experienced more than others were reported. With the help of an integrated program the majority of reported insufficiencies are correctable. The regular presence of specialists and the availability of pharmacy for providing prescribed medication and provision of easily available primary care facilities are major factors for patient satisfaction. Therefore recommendation that the strongest effects were observed for marital status, education, hospital type, type of ward and cost borne by the patient.

Key words: Educational Hospitals • Hospital Care • Performance Assessment • Quality of Health Care

INTRODUCTION

Healthcare system as a dynamic process that makes a community health profile in social and economic development of the country has a big importance [1].

Hospital is one of the healthcare system components that are part of the services that are offered and represent a large investment of resources. In order to meet the growing expectations and growing interest to improve the quality there expand the services offered at the hospital [2].

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Patient satisfaction is the result of a complex set of factors and it is necessary to achieve the multiple dimensions of service care, including nursing, medical, support and coordinate different parts of the organization in such a manner and with full respect for provides the creation of favorable conditions patient rights in all aspects [3].

Importance of satisfaction with the health care system more than it is necessary that the patient experience and compliance and follow-up treatment process, increases the vulnerability of patients and the need for them to support the overall increase, although changes in social conditions, along with public awareness in recent years, expectations of how patients are receiving more services.

Patient satisfaction can be interpreted to state that in hospitalized patients not only receive the necessary care and treatment but the conditions have been satisfied and services be willing, if necessary, refer back to the center and beyond, visit the center or recommend to others [4].

Assessment of patient satisfaction with health care is essential to improving the quality of hospital services and improving business processes, quality of hospital services regardless of their opinions and satisfy the needs and expectations of patients is not possible [5, 6].

Acceptance of any healthcare organization handles the input and output of the system and the admission and discharge all work must be performed by this unit. Acceptance of repentance is a key strategy to achieve the coordination of hospital activities and promotion around the hospital strategy to define, develop, approve and runs.

Information obtained as a criterion for judging the quality of hospital admissions in the various units that may be used to accelerate the adoption of service to patients and visitors. In a study conducted in Kuwait, brought in a multivariate analysis of patient satisfaction with the services given by the acceptance of differences in patient satisfaction was significant, but has not been a decisive role in general satisfied [7].

A study in an African population survey was done to satisfaction, provide the basic information before accepting patients for high patient satisfaction was discussed [8]. In a similar study to the role information before accepting a patient's and information about need of patient as that helps them to overcome the anxiety [9]. The investigation into the role of triage system to determine a patient's primary role is dealt as to the appropriate triage system in the hospital increases patient satisfaction [10].

Several studies was carried out on patient in Iranian about satisfied with the services received that measured to estimate overall of satisfaction with the service, but some aspects of the admission of the patient has been discussed.

In this study more precisely the role of patient acceptance of patient satisfaction with various aspects of its services and the role of different variables on patient satisfaction with services received from acceptance aspects studied in order to enhance patient satisfaction with the hospital quality improvement system.

In this study, patient satisfaction and patient acceptance of the procedure, the first place for contact in patient and hospital. Therefore with knowing the strengths and weaknesses of this process is to provide strategies to eliminate potential problems in the reception of pay; until eventually lead to enhancing greater personal satisfaction.

MATERIALS AND METHODS

This is a cross sectional study that was carried out on 1200 patients (that was the first day of their acceptance) admitted to hospitals in Arak University of Medical Sciences in Iran in the year 2012 and satisfaction in the hospital admission process has been assessed.

In this study with regard to patient satisfaction rate of 70% according to the same study, Parvin *et al.* [3], prevalence estimates 3%, confidence interval 95% and increases accuracy by taking the total of 1200 subjects were considered.

$$n = \frac{(Z_{1-\frac{\alpha}{2}})^2 \cdot p \cdot q}{d^2}$$

In this study based on number of patient admission in each of hospital some of patient with simple sampling was selected.

Also to ensure sampling for all of the hospital departments in each of hospital, the entire questionnaire intended for each center, based on the number of beds available in each section and some of the questionnaire was allocated.

In this study various aspects including waiting times for hospital admissions, treatment admissions staff, find the ward after admission, etc. in the form of a questionnaire inquiry has been addressed.

The questionnaire consisted of two parts (34 questions), the first part was 7 questions including patient demographic information. The second part consists of 27 questions about the admissions process for patient satisfaction in four different parts of the physical environment of acceptance, performance, reception units, performance units and state funds in the sector has been hospitalized patients.

Thus patient satisfaction was rated on a scale of questions based on likert 5 options range from completely satisfied to completely dissatisfied are designed. In order to answer this question with score of 5 for being very satisfied, score of 4 for satisfied, score of 3 for somewhat satisfied, score of 2 for dissatisfied and score of 1 for completely dissatisfied assigned and unanswered questions are zero-marked. Thus the maximum and least score of question was 0 to 5 score respectively.

A preliminary study to determine the validity and reliability of the questionnaire was completed by 20 patients in a hospital, based on this initial questionnaire with 34 questions developed and final validity and reliability has been achieved.

To ensure the validity of the questionnaire by content validity based on opinion executive director of the university and other experts were used. To determine the reliability of each domain of the questionnaire, Cronbach's alpha coefficient was calculated in pilot of study (Alpha=0.8).

Data collected with SPSS software via descriptive, analytical statistical methods and parameters were analyzed using Spearman correlation test, Mann-Whitney and Kruskal-Wallis test data was analyzed.

RESULTS

A total of 1200 questionnaires were completed and analyzed. 640 patients (53.3%) of patients participating in the study were female. 366 patients (30.5%) participated in the study were single. 292 patients (24.3%) participated in this study were high school graduates or higher, 300 patient (30%) have been educated and under- graduates and 608 of them (50.6%) were illiterate or had primary education. 793 (66%) and 407 patients (34%) in the study had been staying in the city and rural respectively. 922 (76.8%) participants in the study, of whom have insurance and other did not have health insurance. The researchers studied 487 patients (40.5%) with a history of hospitalization. Other demographic characteristics of the patients are presented in Table 1.

Table 1: Distribution of demographic characteristics of patients in hospitals of Arak University of Medical Sciences

Variable	Frequency	N	%
Sex	Female	640	53.3
	Male	560	46.7
Marital status	Single	366	30.5
	Married	834	69.5
Level of education	Illiterate	608	50.6
	Undergraduate	300	25
	Graduated	292	24.4
Location	City	793	66
	Rural	407	34
Status of having insurance	Yes	922	76
	No	278	24
Previous hospitalization	Yes	487	40
	No	713	60

Table 2: Mean, standard deviation and maximum patient satisfaction scores

Index of satisfaction	Scores		
	Mean	Standard deviation	Maximum scores
Physical condition	23.3	9.7	40
Performance of admitted section	30.7	12.2	50
Performance of fund section	14.1	8.1	25
Admitted in ward	12.9	5.4	20
Overall satisfaction	80.9	29.8	135

In this study, the mean and standard deviation age of participants was 39.7 ± 23.2 years and the median was 35 years. Divided satisfaction and overall satisfaction of the patients are shown in Table 2.

Using the Spearman correlation test, no statistically significant association between age and satisfaction of the admission process ($p=0.51$). Based on the Kruskal-Wallis test the level of education has an impact on satisfaction and satisfaction rate more in people with under- graduates literacy ($p=0.04$).

Mann-Whitney test was found between satisfaction in male and female there are significant differences and satisfaction in female was higher than men ($p=0.04$).

Also between of single and married groups, there are significant differences in satisfaction and this rate was higher in married group ($p=0.03$). According to the test, it was shown that between of satisfaction of the individual and his residence is not significant ($p=0.62$).

Also based on these tests between of the satisfaction and having or not having health insurance, is not significant difference ($p=02$).

In addition, the mean difference in patients with a history of hospitalization and patients who not having a history of hospitalization is significant and satisfaction of patients who have previously admitted to the hospital more than others ($p=0.02$).

In this study there was no significant relationship between satisfaction with kind of the hospital ($p=0.46$), but between of the type section (surgical and non-surgical) and satisfaction there was a different significant ($p=0.03$) as in surgical wards were high level of satisfaction than other section.

DISCUSSION

This study showed that age of patient, location, type of hospital and having or not having health insurance does not affect them on satisfaction of the admission process. However, female patients, married patients, patients with undergraduate education and patients who previously have been admitted to the hospital more satisfied with the reception.

In a study of Zafarghandi and et al. about examining factors affecting the satisfaction of the acceptance process at Tehran university hospitals significant relationship between satisfaction with the hospital, having health insurance, or patient length of stay and level of education was associated while between of satisfying with age and marital status had no statistically significant relationship [10].

Sedghiani and colleagues in a study to determine admission and discharge processes in the hospitals of Hamedan University of Medical Sciences in Iran, showed that the physical facilities, space, personnel, work practices, outpatient hospital admission, discharge policies and equipment in the hospitals, not favorable and acceptance procedures outpatient, inpatient and discharge may have been different in different hospitals. Effective units in the admission process outpatient clinics, inpatient admission and discharge has been the focus area [11].

In the study of Sheikh and colleagues results showed that between of age, sex and level of education and their satisfaction with the services referred outpatients and emergency admissions there is a significant difference. But there was no significant difference between of satisfaction of the adoption and age, gender, level of education and experience hospitalized patients [12].

In our study, patient satisfaction was negatively associated with higher levels of education, so that the greatest amount of dissatisfaction in people with a college education seen. This relationship aligns with the findings of many studies in Iranian population [13-16] and other countries [17-21].

This difference may be due to the differences between higher expectations of educated people's with lower levels of education people. Joolae and colleagues have justified the difference that people with higher education have more social contacts and access their information sources was more than others, so deficiencies and shortcomings of the system more clearly seen and are generally less satisfied [15].

In our study results showed that no significant difference between the patients satisfaction and kind of hospital. But patients in surgical wards in term of their satisfaction of patient significantly different with other sections.

In the study of Azimian also reported the highest satisfaction rate of patients in the wards [22].

In the study of Bredart and colleague also been seen the difference in satisfaction level of acceptance in different parts of Europe countries. As in this studies patients of satisfaction in whom surgery has seen the greatest amount [18]. Jorgensen et al in their study reported that between sectors will lead to differences in patient satisfaction [23].

Among the demographic variables, the correlation between age, residence and health insurance coverage, with the satisfaction of their patients there was no significant difference. This findings with other study for example Lee *et al.* [17] and Quintana and colleagues was similar [19].

Although in our study this was a good level of satisfaction of the admissions process, but a series of findings on admission to the hospital reform, creating a distinctive of admission on the standard patterns and location, specialist human resources and to facilitate and accelerate the acceptance of patients who need specialized services, are confirmed.

In addition to proper planning and basic ideas of patients using hospital services could have an important role in improving the quality of hospital services; because all of the clinics and hospitals based on the needs of the people and to serve them has been created should all efforts to promote public health and patient satisfaction in hospitals used.

In this regard control services in all areas, especially in the adoption process and determining the factors affecting patient dissatisfaction is great importance in providing hospital services.

CONCLUSION

According to the survey results to improve the performance of hospital admission, to provide specific instructions, employing skilled manpower, training workshops around the state, the optimal allocation of resources, equipment and the unit space needed and continuous evaluation of the medical records department and better coordination with other hospital units can be useful.

One of the limitations of this study is to collect data through a self-reported therefore must be cautious in generalizing the results.

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Ethical Considerations: The study received ethical clearance from the Arak University of Medical Sciences Arak Research Ethics Committee. The researcher explained the project's purpose, voluntary nature, confidentiality and use of written consent.

REFERENCES

1. Asef Zadeh, S. and A. Reza Pour, 2003. Management and Research Hospital. 1st ed. Qazvin: Qazvin University of Medical Sciences Publications, pp: 189.
2. Hajinezhad, M., F. Rafii, E. Jafarjalal and H. Haghani, 2007. Relationship Between Nurse Caring Behaviors from Patients' Perspectives & Their Satisfaction. Iran Journal of Nursing, 20(49): 73-83.
3. Parvin, N., A. Alavi, A. Hasanpopur and E. Alidoust, 2007. The Study of Inpatients' Satisfaction from Nursing Care in Shahrekords' Hospitals. Journal of Gorgan Bouyeh Faculty of Nursing & Midwifery, (11): 21-26.
4. Ahmad, I., 2010. Patients' Satisfaction from the Health Care Services. Gomel Journal of Medical Sciences, 8(1): 95-97.
5. Parker, S. and F. Kreboth, 1991. Practical programs of conduction patient satisfaction. Journal Nurse Care, 6(5): 436-35.
6. Thomas, L. and S. Bond, 1996. Measuring of patient's satisfaction with nursing:1990-940. J. Adv Nurse, 23(4):747-56.
7. Guirguis, W., S. Mokhtar and M. Al-torkey, 1992. Patient satisfaction with hospital services: determinants and level in a hospital in Kuwait. J. Egypt Public Health Assoc, 67(1-2): 87-108.
8. Ofovwue, C. and A. Ofili, 2005. Indices of patient satisfaction in an African population. Public Health, 119(7): 582-6.
9. Malkin, K., 2000. Patients' perceptions of a pre-admission clinic. J Nurs Manag, 8(2): 107-13.
10. Zafarghandi, M., S. Rezaei and H. Khalkhali, 2005. Evaluation of patient satisfaction rate of admission processing in the hospitals of Tehran University of Medical Sciences. Hakim Research Journal, 8(3): 37-31
11. Sadaghiani, E., A. Hajavi and M. Samadbeik, 2001. Evaluation of hospital admission and discharge process in teaching hospitals of Hamadan University of Medical Sciences in year of 2000. Journal of Hospital, 3(4): 29-36.
12. Sheikhi, M. and A. Javadi, 2004. Patients' satisfaction of medical services in Qazvin educational hospitals. Journal of Qazvin Univ. of Med. Sci, 29: 62-66.
13. Hajian, K., 2007. Satisfaction of hospitalized patients (Of health care services) in Shahid Beheshti and Yahyanezhad hospitals of Babol. Journal of Babol University of Medical Sciences, 9(2): 51-60.
14. Azami, A. and K. Akbarzadeh, 2004. Study of the Satisfaction Rate of Hospitalized Patients at Ilam Hospitals. Journal of Ilam University of Medical Sciences, 12(44-45): 10-16.
15. Joolae, S., A. Givari, S. Taavoni, N. Bahrani and R. Reza Pour, 2008. Patients' satisfaction with provided nursing care. Iranian Journal of Nursing Research, 2(6-7): 37-44.
16. Saif Rabiei, M. and A. Shahidzadeh, 2006. Patient satisfaction: a study of Hamedan teaching and general hospitals. Payesh, Journal of the Iranian Institute for Health Sciences Research, 5(4): 271-279.
17. Lee, D., A. Chong and A. Alter, 2008. Patient satisfaction and its relationship with quality and outcomes of care after acute myocardial infarction. Journal of Circulation, 4: 118(19):1938-45.

18. Bredart, A., C. Coens, N. Aaronson, W. Chie and F. Efficace, 2007. Determinants of patient satisfaction in oncology settings from European and Asian countries: preliminary results based on the eortc in patsat questionnaire. *Eur J. Cancer*, 43(2): 323-30.
19. Quintana, J., N. Gonzalez, A. Bilbao, F. Aizpuru, A. Escobar and C. Esteban, 2006. Predictors of patient satisfaction with hospital health care. *BMC Health Serv. Res*, 16(6): 102.
20. Al-Doghaither, AH., 2004. Inpatient satisfaction with physician services at King Khalid University Hospital, Riyadh, Saudi Arabia. *East Mediterr Health J.*, 10(3): 358-64.
21. Nguyen, T., F. Empereur and S. Briançon, 2002. Satisfaction of patients hospitalized in Ho Chi Minh City, Vietnam. *Sante Publique*, 14(4): 345-60.
22. Azimiyan, J., 2000. Study of the Satisfaction Rate of Hospitalized Patients in medical, cardiology CCU and emergency wards at a Ghazvin hospital. *Firth congress of quality management*, Tehran, pp: 201.
23. Jorgensen, K., V. Romma and T. Rundmo, 2009. Associations between ward atmosphere, patient satisfaction and outcome. *J Psychiatr Ment Health Nurs*, 16(2): 113-20.