

## Satisfaction rate of hospitalized patients in military hospitals with presented services

Ebrahimmia M.<sup>1</sup> MSc, Ameriyoon A.\* PhD, Azizabadi Farahani M.<sup>1</sup> MD, Khoddami Vishte H. R.<sup>2</sup> MD

\*Trauma Research Center, Baqiyatallah Institute of Medical Sciences, Tehran, Iran;

<sup>1</sup>Health Management Research Center, Baqiyatallah Institute of Medical Sciences, Tehran, Iran;

<sup>2</sup>Trauma Research Center, Baqiyatallah Institute of Medical Sciences, Tehran, Iran

### Abstract

**Aims:** The patients' viewpoint is as important as that of managers and planners of health system in promoting the quality of treatment services. Present study was conducted to investigate hospitalized patients' satisfaction with hospital services in 6 military hospitals located in different parts of the country.

**Methods:** In this descriptive cross-sectional study, 696 hospitalized patients were selected from 6 military hospitals located in different parts of country (116 patients from each hospital), using random sampling method from July to September 2001. After, a checklist containing personal demographic information and a questionnaire determining the patients' satisfaction level with hospital services were completed for all patients. Answers were designed in Likert 5-point scale of "completely dissatisfied" (1 point) to "completely satisfied" (5 points). At the final analysis, the point 3 and the lower were considered as dissatisfaction and points more than 3 as satisfaction from services. Data were analyzed using descriptive statistics and Chi square test.

**Results:** 684 patients (98.2%) of referred patients were satisfied with the hospital services. Patients' satisfaction with hospital services had statistically significant difference in different parts ( $p=0.013$ ). The most number of "dissatisfied" and "completely dissatisfied" were related to welfare facilities and the least number was related to medical services.

**Conclusion:** Hospitalized patients have desirable satisfaction with military hospitals' services. Managers need to pay special attention to the reform of administrative processes and development of insurance services besides acceptable medical and nursing services.

**Keywords:** Satisfaction, Hospitalized Patients, Hospital Services

### Introduction

In the past, in order to promote the health services, taking the viewpoints of this domain's experts into consideration was considered as the most important determining factor in the way of changing the servicing process. However, in recent studies considering the viewpoints of patients about health services have been of researchers' attention as an important indicator of the quality of services; opinions that may even be different, or even in opposition with the view of health experts. Thus, patients' point of views regarding the way of providing health service have been considered as a determining index for evaluating and improving the quality of services [1, 2, 3]. This issue has gained such significance that the patients' satisfaction with health services has been known as one of the five service quality indicators from the viewpoint of the World Health Organization [4] and from some researchers' stand point this factor may be introduced as one of the most important determinants of health services quality [5].

The most common studied groups in this field are the hospitalized patients. Patients' view on the quality of

hospital services is considered as the major fields of studying satisfaction with health services [6, 7]. Since hospitalization during the disease time is a stress-causing process, and in many cases is considered as the adverse experience in the life and on the other hand, being hospitalized leads to impose huge costs to the individual and community; the study of patients' satisfaction from services during hospitalization has gained importance as the main objectives of hospital staff and managers of this area [8, 9, 10].

Patients' view of the way of providing health services could include important information about the quality of different aspects of health services. Results of various studies show that patients' satisfaction with the way of providing health services, is affected by different factors such as the performance of physicians, nurses, administrators and even the medical centers' physical environment [11, 12] and on the other hand, is itself an anticipative factor for the future behaviors of patients during treatment and even after the discharge from hospital. More profound relation with the health service providers, higher compliance of the drug regimens and treatment recommendations and access to better outcomes in

\* Correspondence; Email: ad\_amer\_heli@yahoo.com

health area have been well revealed following the patients' satisfaction with the health services [6, 13, 14, 15]. Since the patients' satisfaction is an indicator of the quality of services in different interpersonal, organizational and technical areas, its evaluation can be an important source of information for understanding the problems and favorable programs in the field of health care services [16].

Before this, several studies have been conducted in Iran, in the field of evaluating the patients' satisfaction with medical services. But because patients' satisfaction is a multi-dimensional trait influenced by multiple underlying personal, cultural, social, economic and religious factors of the patients [17, 18, 19] and considering that most studies in Iran, have been limited to the hospitals and particular urban areas and the views of that particular geographic regions' residents about the health services [20, 21, 22, 23, 24, 25] and have had a very different findings, so it seems that further extensive studies are needed in order to obtain patients' viewpoints regarding the care services in Iran. This study was conducted aiming at investigating the hospitalized patients' satisfaction with hospital services in six military hospitals located in different parts of Iran.

## Methods

This descriptive cross-sectional study was conducted on the patients hospitalized in six military hospitals around the country from July to September 1386. Sample size was calculated by  $Z^2 (1-\alpha/2) P(1-P)/d^2$  using the formula for determining the sample size of population, and was determined as  $\alpha=5\%$ ,  $d=10\%$  and  $p=90\%$  based on the pilot stage's results. 116 patients from each hospital and a total of 696 patients were enrolled. Hospitals were selected non-randomly from among the military hospitals in 6 province capitals from different parts of the country and patients were randomly selected from among the discharged patients. The selected patients were interviewed after the end of discharge steps. After introducing themselves and explaining the goals of the study, the interviewers while obtaining patient's satisfaction level, completed an anonymous checklist containing personal information of patients including age, gender, marital status, educational level, insurance type, previous hospitalization in the studied hospital. Moreover, the questionnaire of the patients' level of satisfaction with hospital services during their hospital stay was completed. Since in a part of hospital services, patients' companions participated in executive processes, the questions related to

admission, accounting and discharge services were completed with the help of patients' companions.

The questionnaire of the patients' level of satisfaction with hospital services, the quality of services from the viewpoint of the hospitalized patients was analyzed in eight domains of medical services (10 questions), nursing services (12 questions), nurses' behavior (15 questions), nutrition condition (11 questions), welfare facilities (14 questions), admission services (6 questions), discharge (7 questions) and accounting (4 questions). The responses were designed according to Likert five-point scale of "completely dissatisfied" (1 point) to "completely satisfied" (score 5). This questionnaire had been tested in Iran before, and in addition to validity, its reliability has been confirmed with confidence coefficient of 90% [26].

Data was statistically analyzed using SPSS 13 software. Frequency and relative frequency of different levels of satisfaction were calculated totally and separately for each one of different hospital services and were presented using frequency tables. In order to compare the levels of patients' satisfaction with different parts of hospital services, in each part patients were divided into two satisfied and dissatisfied groups. Score of 3 or lower were considered as dissatisfaction, and scores more than 3 as the satisfaction with hospital services in general and in each of the studied parts. Finally, to compare the frequency of patients' satisfaction with services in different parts of the hospital services, Chi-square test was used.

## Results

348 (50%) of subjects were male and 564 (81%) were married (Table 1).

**Table 1-** Demographic characteristics, insurance coverage and the history of hospitalization in the studied population

Variable	Number	Percent	
Sex	Male	348	50
	Female	348	50
Age (years)	Less than 25	195	28
	25-35	181	26
	35-45	118	17
	Above 45	202	29
Education	Primary school	195	28
	Middle school	125	18
	Diploma	230	33
Marital status	College	146	21
	Married	564	81
Insurance coverage	Single	132	19
	Yes	675	97
History of admission	No	21	3
	Yes	376	54
	No	320	46

The lowest rate of complete satisfaction was related to accounting unit and the highest rate to the nurses' behavior. The rate of complete dissatisfaction in the facilities domain was significantly more than other areas (Table 2).

Comparison of the way of various hospital services, in terms of the classification of patients in both general groups of satisfied and dissatisfied, on the basis of the amounts reported in each of hospital services' revealed a significant difference ( $p=0.013$ ). Accordingly, 684 patients (98.2%) of the total sample expressed their satisfaction with hospital services (Table 3).

**Table 2-** The frequency of different levels of satisfaction in eight domains under study

Satisfaction level→ Domain↓	Completely satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Completely dissatisfied
Medical Services	3053(44)	2857(41)	726(10)	227(3)	97(1)
Nursing Services	3195(38)	3440(41)	1087(13)	432(5)	198(2)
Nurses' behavior	3793(36)	4420(42)	1444(14)	555(5)	228(2)
Nutrition status	2559(33)	3517(46)	1125(15)	253(3)	202(2)
Welfare facilities	3496(36)	4170(43)	1271(13)	472(5)	335(3)
Admission services	1538(37)	1889(45)	509(12)	165(4)	75(2)
Discharge services	1462(30)	2402(49)	713(15)	215(4)	80(2)
Accounting	1023(37)	1238(44)	353(13)	119(4)	51(2)

(Values in parentheses are percentage and values outside the parentheses are the numbers)

**Table 3-** The overall level of satisfaction or dissatisfaction of patients with the services

Overall level→ Area↓	Satisfied	Dissatisfied	Level of Significance
Medical Services	659(94.7)	37(5.3)	$\chi^2$ test 0.013
Nursing Services	640(91.9)	56(8.1)	
Nurses' behavior	640(91.9)	56(8.1)	
Nutrition status	637(91.5)	59(8.5)	
Welfare facilities	637(91.5)	59(8.5)	
Admission services	635(91.2)	61(8.8)	
Discharge services	632(90.8)	64(9.2)	
Accounting	614(88.2)	82(11.8)	

(Values in parentheses are percentage and those outside the parentheses are numbers)

## Discussion

The findings of the present study show that in general, more than 98% of hospitalized patients in various departments of military hospitals located in different parts of Iran were satisfied with the way and quality of

the provision of hospital services in all areas including medical services, nursing services, nursing behavior, nutrition condition, welfare services, reception services, accounting and discharge services. Meanwhile, among the entire various sections of hospital services, satisfaction with medical services, nursing services and nurses' behavior, respectively, had the most favorable results in comparison with other areas. Conversely, satisfaction with accounting services had the most undesirable results among all hospital services. Meanwhile, satisfaction with nutritional status and welfare services during the admission, discharge and admission services were in an intermediate status.

Analysis of the results of previous similar studies shows that despite the dramatic differences between the results in this field, most studies performed in Iran, have generally reported the patients' satisfaction with treatment services to be appropriate. For example, studies conducted to evaluate patients' satisfaction with medical services in Babol [20], Kashan, [21] and Qazvin [22], respectively have reported the overall satisfaction of patients to be 94, 95 and 94%. However, in some studies, patients' satisfaction has been reported much lower and at the level of 50% [23, 24]. Therefore, this study compared to the results of previous studies indicates the higher satisfaction of patients hospitalized in Iran military hospitals in comparison with other studied public health centers.

On the other hand, searching in the literature regarding the satisfaction rate reported in different parts of hospital services shows very different results. Although, in line with the results of this study, patients' satisfaction with medical and nursing services provided to patients hospitalized in Ilam university hospital has been reported to be 95% [25] but in a study in Isfahan, patients' satisfaction with medical and nursing services turned out to be 60% [23], which is far more undesirable than the results of present study. This issue is also true for other hospital services. For example, patients' satisfaction with welfare services and nutritional status in each of the studies conducted in Ilam [25] and Isfahan [23], respectively, has come out to be approximately 80 and 50%. Thus, regardless of the significant difference between the results of these two studies, comparison of the present study findings in terms of welfare and nutrition services during the hospital stay, indicates a more desirable condition of service studied in military hospitals compared to both mentioned studies.

Regarding the significant difference of the findings of various studies, apart from the differences in the hospital services in various medical centers that is

certainly one of the reasons for the difference in results between different studies and basically the main reason for doing such evaluations, but it seems that other reasons should also be noted. Some researchers believe that patients' satisfaction with medical services is under the influence of several factors including individual factors (such as sex, age and education), personality, cultural, economic and social factors in each geographic region [17, 18, 19]. Also, the use of different tools to investigate the patients' satisfaction in different studies can lead to different results. One of the other important factors that can be considered as a factor affecting the results of this study and previous studies is that in most previous local studies, studies were done in public [governmental] and university hospitals; whereas in the present study, patients hospitalized in military hospitals have been evaluated. Since the general referrals to military hospitals have been taken place less, compared to academic centers and most referrals to the hospital are military personnel; therefore, the difference in personality, individual and social characteristics may be the reason of difference of the findings of the present study and other similar studies. In addition, it seems that the management mode, rules and principles governing the military and university hospitals are somewhat different from each other as well, that the difference in the findings can be attributed to this factor, too.

In total, the results of this study indicate that one can generally investigate the satisfaction reported by patients in military hospitals of the country in two general parts. First part of the results is allocated to the way of providing the services during hospital stay, after admission up to the discharge time and the second part to the side services such as admission, discharge and accounting. These results show that the most patients' satisfaction with the services offered in the first part is more desirable than the second part. Though the findings of this study, compared to previous similar studies, reveal more patients' satisfaction in most parts of medical services including administrative services, but in other studies like this study, also report most patients' discontent from administrative services such as accounting and discharge compared to medical services provided during hospitalization [20, 23]. It seems that this part of health care today is still the main concern of patients and needs special attention by managers. Since disease-induced stress reduces the patients' and their close families' tolerance against the performance of time-consuming administrative protocols, changing the administrative processes in terms of providing

health services to reduce clients involvement in the administrative process of admission and discharge will be of significant importance in solving this problem. On the other hand, despite the progress in Iran's insurance industry, the attempt to cover insurance services more extensively and to reduce the patients' share of medical expenses more than ever, may be effective in satisfying the problem of patients' dissatisfaction with services' provision in health centers.

Present study is among a few studies conducted in the field of assessing patients' satisfaction with hospital services in Iran. Although the significant volume of hospitalized patients and patients' sampling from different parts of Iran can be stated to be among the positive features of the present study, some restrictions can also be outlined. Since this study investigated the hospitalized patients' satisfaction in military hospitals and due to the reasons that were explained in the discussion section in detail, the findings of the present study cannot be generalized to the entire system presenting health service in Iran. Also, defects in the data in the part of social and economic characteristics of patients such as occupation, monthly income and family size, lack of information about the disease type and hospital ward and the lack of knowledge about outcomes of patients' hospitalization, can be mentioned among the other limitations of this study. To confirm the findings of this study, some intervention studies are recommended in future.

## Conclusion

Satisfaction of hospitalized patients with the services of military hospitals in Iran is at a desirable level. The mode of service delivery by health personnel (physicians and nurses) leads to the greatest patients' satisfaction. The attempt by officials and policy makers working in health system, in order to develop more and more insurance coverage and thereby reduction of the financial burden of admitted patients, is among the other fields that has a significant role in patients' satisfaction with hospital services as much as paying attention to providing ideal medical and nursing services.

## References

- 1- Joosten EAG, DeFuentes-Merillas L, Weert GH, Sensky T, Staak CPF. Systematic review of the effects of shared decision-making on patient satisfaction, treatment adherence and health status. *Psychother Psychosom*. 2008;77:219-26.
- 2- Hendriks AA, Vrieling MR, Smets EM, Haes JC. Improving the

- assessment of patients' satisfaction with hospital care. *Med Care*. 2001;39:270-83.
- 3- Barr JK, Giannotti TE, Sofaer S, Duquette CE, Waters WJ, Petrillo MK. Using public reports of patient satisfaction for hospital quality improvement. *Health Serv Res*. 2006;41(3):663-82.
  - 4- Shaw CD, Kalo I. A background for national quality policies in health systems. Copenhagen: WHO; 2002.
  - 5- González N, Quintana JM, Bilbao A, Escobar A, Aizpuru F, Thompson A, et al. Development and validation of an in patient satisfaction questionnaire. *Int J Q Health Care*. 2005;17(6):465-72.
  - 6- Labarere J, Francois P, Auquier P, Robert C, Fourny M. Development of a French inpatient satisfaction questionnaire. *Int J Q Health Care*. 2001;13(2):99-108.
  - 7- Matis GK, Birbilis TA, Chrysou OI. Patient satisfaction questionnaire and quality achievement in hospital care: The case of a Greek public university hospital. *Health Serv Manage Res*. 2009;22:191-6.
  - 8- Quintana JM, Gonzalez N, Bilbao A, Aizpuru F, Escobar A, Esteban C, et al. Predictors of patient satisfaction with hospital health care. *BMC Health Serv Res*. 2006;6:102-7.
  - 9- Jha AK, Orav EJ, Zheng J, Epstein AM. Patients' perception of hospital care in the United States. *N Engl J Med*. 2008;359(18):1921-31.
  - 10- Tokunaga J, Imanaka Y, Nobutomo K. Effect of patient demands on satisfaction with Japanese hospital care. *Int J Q Health Care*. 2000;12(5):395-401.
  - 11- Clever SL, Jin L, Levinson W, Meltzer DO. Does doctor-patient communication affect patient satisfaction with hospital care? Results of an analysis with a novel instrumental variable. *Health Serv Res*. 2008;43(5):1505-19.
  - 12- Ko HH, Zhang H, Telford JJ, Enns R. Factors influencing patient satisfaction when undergoing endoscopic procedures. *Gastrointest Endosc*. 2009;69(4):883-91.
  - 13- Malik AM, Teles JP. Hospitals and quality programs in the state of Sao Paulo. *RAE*. 2001;41(3):51-9.
  - 14- Sullivan M. The new subjective medicine: Taking the patient's point of view on health care and health. *Soc Sci Med*. 2003;56(7):1595-604.
  - 15- Wroth TH, Pathman DE. Primary medication adherence in a rural population: The role of the patient-physician relationship and satisfaction with care. *J Am Board Fam Med*. 2006;19:478-86.
  - 16- Kurpas D, Steciwko A. Patient satisfaction as the main indicator of primary care quality. *Przegl Lek*. 2005;62(12):1546-51.
  - 17- Wikehult B, Ekselius L, Gerdin B, Willebrand M. Prediction of patient satisfaction with care one year after burn. *Burns*. 2008;35(2):194-200.
  - 18- Davis SL, Adams-Greenly M. Integrating patient satisfaction with a quality improvement program. *J Nurs Adm*. 1994;24(12):28-31.
  - 19- Coll E, Thomas L, Bond S. A study to determine patient satisfaction with nursing care. *Nurs Stand*. 1996;10(52):34-8.
  - 20- Hajiyan K. Satisfaction of patients admitted from the delivery of services and treatment in Shahid Beheshti hospital, Babol. *Babol Univ Med Sci J*. 2007;9(2):51-60. [Persian]
  - 21- Masoud SA, Taghizadeh M, Atharizadeh M. Evaluation of satisfaction of patients discharged from hospital in Shahid Beheshti hospital, Kashan. *Teb Tazkiye*. 2003;1(48):22-6. [Persian]
  - 22- Shaykhi MR, Javadi A. Satisfaction of the service in provides health education centers, Qazvin. *Qazvin Univ Med Sci J*. 2003;7(4):62-9. [Persian]
  - 23- Zolfaghari A, Ovays S, Adibi A, Akbari P. How do control the quality of patient satisfaction in hospitals providing care to use? *Teb Tazkiye*. 2005;14(2):35-43. [Persian]
  - 24- Bahrapour A, Zolala F. Patient satisfaction and related factors in Kerman hospitals. *East Mediter Health J*. 2005;11(5-6):905-11.
  - 25- Azimi A, Akbarzadeh K. Review of patient satisfaction of services provided in hospitals in Ilam. *Ilam Univ Med Sci J*. 2004;3(45):10-6. [Persian]
  - 26- Ameriyoun A, Ebrahiminiya M, Karimi-Zarchi AA, Tavaffoghi S, Zaboli R, Rafati H, et al. Patient satisfaction in hospital and referred to a military hospital. *Mil Med*. 2009;11(1):37-44. [Persian]