

# Factors affecting the quality of hospital hotel services from the patients and their companions' point of view: A national study in Iran

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**Background:** The hospitality design of a hospital is a complex process that depends on careful planning, systematic thinking, and consideration of various factors. This study aimed to determine the viewpoints of patients and their relatives on factors affecting hospital hotel services in Iran in 2015. The results of this study can be used to design a suitable model for the assessment and improvement of hospitality service quality. **Materials and Methods:** In this cross-sectional descriptive study, 10 hospitals of Iran were included. The subjects of the study included 480 patients and their companions from different internal and surgical wards. Simple random sampling method was performed at the hospitals, where patients were selected through stratified sampling based on hospital wards, and in each ward, through systematic sampling based on the bed numbers. A researcher-made questionnaire was used as the study tool which was developed through reviewing the literature and opinions of experts. Its internal reliability was determined based on Cronbach's alpha coefficient ( $\alpha = 0.85$ ). **Results:** In reviewing the eleven aspects of hospital hotel services regarding the patients' and their companions' viewpoint, services related to all aspects, whether human, economic, operational, personnel identification, safety, health care services, physical, clinical welfare, cultural, patient guidance, or public welfare services, received mean scores of higher than three (out of five). **Conclusion:** The present study showed that in the patients' and their companions' viewpoint, factors affecting hospital hotel services in the country are very important. The tool used in this study can be a criterion for assessing the status of the hotel services of the country's major hospitals, so accordingly, the assessment and improvement of the existing conditions can be possible.

**Key words:** Hospital, hotel service, patients, quality

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## INTRODUCTION

In recent years, hospitals have been considered as special hotels and hospital planning managers have extended the principles of hospitality to health care services in order to improve customer satisfaction. Hospitals are even physically designed to be comfortable, safe, and beautiful like hotels.<sup>[1-3]</sup> Modern hospitals are designed with inspiration from hotels and consideration of factors such as increased patient satisfaction, family expectations, and financial issues. Hospitality design of

a hospital is a complex process that depends on careful planning, systematic thinking, and consideration of various factors. Key factors such as human, physical, and functional factors are the foundation of high-quality services in hospitals.<sup>[4,5]</sup>

Human factors are disrupted based on the behavior and appearance of service providers. Physical factors refer to lifeless factors in the hospital environment. Functional factors govern the technical quality of services and their functionality and reliability, and in fact refer to the nature of services. However, human and physical elements refer to the manner of performance of these

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services.<sup>[4]</sup> Other major factors also affect the hospitality of hospitals.<sup>[6-8]</sup> Experts believe these factors to include elements related to the economy, culture, security, public welfare services, clinical care services, patient guidance, and personnel identification.

Previous studies indicated that one of the factors of hospital rivalry is hoteling services.<sup>[8-14]</sup> This factor can influence customer satisfaction and loyalty. Hoteling and supportive services can affect hospital selection more than clinical services and have a relative impact on increasing the number of patients, welfare, and reducing the costs. Studies indicated that the consideration of the views of patients is essential in assessing the quality of services. Managers and supervisors are required to identify the criteria of and important topics in hotel hospitality from the perspective of knowledgeable patients and how it affects patients. In fact, people's understanding of an event is more important than reality and this perception can be managed.<sup>[15,16]</sup> On the other hand, in the Iranian culture, people believe that families are responsible for the care of their patient and it is essential to accompany their patient during his/her hospital stay. Therefore, incorporating the comments of patients' companions in service quality assessment provides the researchers with comprehensive information. In recent years, a health system plan has been proposed in Iran and efforts have been made to provide high-quality health care services to clients. Consideration of customer satisfaction is essential and hospitality services of hospitals could be one of the criteria for quality assurance services. Due to the above cases and considering that assessment instruments and hospital accreditation procedures by the Ministry of Health, Treatment, and Medical Education rarely examine hoteling services of hospitals, this study aimed to determine the factors influencing hotel services in Iranian hospitals in 2015 based on the perspectives of patients and their companions. Moreover, using the results of this study, a suitable model could be designed for the assessment and improvement of the quality of hospitality services.

## MATERIALS AND METHODS

This cross-sectional descriptive study was conducted using both quantitative and qualitative methods in 2015 in 10 cities in Iran. The statistical population comprised of patients hospitalized in teaching hospitals of Iran and their companions. Multistage sampling was performed in the present study. Hospital sampling was conducted based on the classification of teaching hospitals affiliated to medical universities which was arranged for the determination of quotas for clinical medicine specialties in 2014–2015. In this classification, cities which had major hospitals including Mazandaran, Tabriz, Kermanshah, Ahvaz, Shiraz, Arak, Isfahan, Kerman, Mashhad, and Tehran and a total of 10

regions were identified. Based on this framework, sampling was performed by referring to the hospital lists of the treatment deputy of provincial medical universities and randomly selecting one hospital. A total of 10 hospitals from 10 cities were included in the study. A sample size of 480 people was determined, using the Cochran formula.<sup>[17]</sup>

To achieve the study subjects in each hospital, one-tenth of the total sample was considered as equal to 48 patients. These individuals were enrolled in the study using stratified sampling based on the hospital wards, and then, using systematic sampling in each ward based on the bed numbers from different wards (internal and surgical wards). Inclusion criteria included hospitalization in one of the hospital wards, being able to read and write to the extent to complete the questionnaire, being 15–75 years of age, and having good physical conditions to the extent to respond to the questionnaire. Patients who were unwilling to participate in the study were excluded from the sampling and were replaced. Inclusion criteria for the companions included having kinship with the patients, 20–70 years of age, staying with the patient for the duration of at least one hospital shift, and being able to read and write to complete the questionnaire. Companions with health problems and a history of hospitalization were excluded from the study and replaced.

A researcher-made questionnaire was used for data collection in this study. To develop the questionnaire, first, using the library studies method, Persian and Latin journals, scientific papers, theses, websites of the leading organizations in the field of quality improvement (the National Health Service, World Health Organization (WHO), AHRO, ICAHO, sources of information, and internal and external search engine, such as IRANDOC, IranMedex, MEDLINE, PubMed, Scopus, Elsevier, and all the articles, books, documents, reports, and guidelines on various aspects of improving the quality of hoteling in Iranian public hospitals were collected. In the second stage, interviews were conducted with professionals in the field of health care management, including faculty members and policy makers, to complete the interview variables. Therefore, a list of comprehensive variables effective on the improvement of hospital hoteling services quality was prepared. At this stage, through note taking, and use of information forms, data encoding, content analysis method, and matching matrix, data were classified and duplicate data were eliminated. Based on the findings, a qualitative study was designed. The questionnaire was composed of two parts; demographic characteristics and hospital hoteling questionnaire. The hospital hoteling questionnaire consisted of 96 items in 11 areas, including human factors (10 items), physical factors (19 items), functional factors (16 items), safety factors (11 items), economic factors (8 items), cultural

factors (7 items), public welfare services (11 items), patients guidance (5 items), clinical welfare services (2 items), health care services (4 items), and identification of personnel (3 items). The questionnaire was scored based on a 5-point Likert scale ranging from 5 to 1 (very high, high, medium, low, and very low). In order to obtain analogous item scores, the total score of each factor was divided by the number of items and was made compatible with scores of 1–5.

The initial draft contained about 190 items. For the confirmation of the validity of the questionnaire, a panel of experts (academic) discussed the content of the questionnaire based on the areas, items, indicators' coverage, components, value and weight of the items, structure, and transparency of the terms and sentences for 4 days and a total of 16 h. After the implementation of the necessary amendments, a new questionnaire was developed. The revised questionnaire was rewritten and given to the experts individually for approval. The questionnaires were given to 10 patients and their companions and they were asked to determine their degree of understanding and interpretation of questions and whether the questionnaire was clear and the structure of the questions and the text was unambiguous and clear.

To determine the reliability of the questionnaire, thirty subjects completed the questionnaire and its internal consistency was approved through calculation of Cronbach's alpha coefficient ( $\alpha=0.85$ ). The results of each of the areas of physical factors, functional factors, safety factors, economic factors, public welfare services, humane factors, patient guidance, cultural factors, personnel identification, health care services, and clinical welfare services separately were 0.96, 0.96, 0.95, 0.93, 0.93, 0.93, 0.88, 0.86, 0.84, 0.76, and 0.31, respectively.

This self-administered questionnaire was distributed face to face among the patients and their companions. Distribution and collection of the questionnaires lasted 4 months and 426 questionnaires were collected.

This research was approved by the Ethics Committee of the Islamic Azad University, Science and Research Branch, Tehran, Iran. After obtaining a license and providing it to the hospital administrators, an informed consent was obtained from the participants and they were assured of the anonymity and confidentiality of their data. It was further stressed that they could withdraw from the study at any time they wished and lack of participation would not have any conflict with the clinical services.

The collected data were analyzed with SPSS software (version 22, SPSS Inc., Chicago, IL, USA) and using descriptive statistics and through determination of frequency distribution, mean, standard deviation, and confidence intervals.

## RESULTS

Of the 480 questionnaires distributed, 337 questionnaires (70%) were completed, collected, and analyzed. Among the subjects, there were 206 women (60%) and 131 (40%) men with a mean length of hospitalization of less than a week and the ability to read and write. The demographic characteristics of the patients and their companions are presented in Table 1.

The patients and their companions reported that many variables and factors can impact hospitality services in hospitals [Table 2]. In reviewing the 11 aspects of hospital hotel services, services related to all aspects whether human, economic, operational, personnel identification, safety, health care services, physical, clinical welfare, cultural, patient guidance, and public welfare services received mean scores of higher than three (out of five).

Subjects responded to a wide range of services provided in hotels (96 items) and identified the importance of each issue. Since it is not possible to report all the items in this paper, only important factors in each dimension are discussed and their mean and standard deviation are presented. In the physical aspect, the important issues were the esthetics of the physical environment, the proximity of the related services to avoid additional commuting, and an elevator available throughout the day. In the performance dimensions, the most important factors based on the mean and standard deviation were providing information on the prevention and reduction of

**Table 1: Frequency distribution of individual characteristics of patients participating in the study**

Demographic characteristics	Frequency
Gender	
Male	131
Female	206
Education	
Under diploma	59
Diploma	92
Associate degree	43
Undergraduate	95
Masters and higher	38
Age (years)	
<20	20
21-30	132
31-40	106
41-50	39
>50	36
Duration of hospitalization	
Less than a day	45
Less than a week	160
1 week to 1 month	69
1 month and more	35

**Table 2: The mean scores of patients and their companions regarding factors affecting hospital hospitality in terms of different aspects**

Aspect	Mean±SD
Physical	
Esthetic physical space	4.27±1.08
The proximity of related services to avoid additional commuting	4.10±1.24
Availability of lifts throughout the day	4.1±4.31
Performance	
Provision of adequate information on the prevention and reduction of complications in the patient	4.27±0.96
Suitable visiting process during the day and night in the hospital	4.03±0.16
Regular therapeutic measures such as daily visits, medication, and treatment recommendations	4.03±0.27
Economic	
Assistance in finances	3.93±1.31
Accepting different types of health and supplemental insurance	3.83±1.21
Informing the patients of hospital costs before hospitalization	3.80±0.19
Public welfare services	
Taxi service at the hospital campus	3.93±1.30
Food and beverage services for patients and their relatives in hospital rooms	3.76±1.46
The establishment of facilities for overnight accommodation for patients' relative	3.70±1.56
Safety	
Intelligent fire alarm and extinguisher systems	3.19±3.25
Prevention of the growth and multiplication of insects and animals in the hospital environment	3.87±1.20
Installation of safety facilities and equipment such as barriers and fences	3.86±4.41
Cultural	
Religious counseling at the patient's bedside	3.75±1.21
Public areas suitable for performing prayers and rituals	3.69±1.44
Human	
Attention to and respect for ethnic and religious minorities	3.93±1.05
Maintenance of confidentiality of patient information	3.89±1.43
Gaining of patients' permission to start a medical treatment	3.83±1.08
Patient guidance	
The availability of addresses of other related health centers such as offices and laboratories	3.93±1.44
Guidance facilities, such as signs and markings	3.90±1.24
Personnel identification	
Use of identification badges by health care providers	3.82±1.25
Neat and tidy appearance of the service providers	3.75±1.35
Care services	
Performance of care services such as injections or medication by a nurse (activity type)	3.18±3.23
Proximity of nursing stations to the patients' rooms	3.67±1.37
Clinical welfare services	
Appropriate diagnostic and treatment process services for patients in the hospital	3.93±1.28
Appropriate process for equipment such as orthopedic devices	3.38±1.18

SD = Standard deviation

complications in patients, suitable visiting process during day and night at the hospital, and regular therapeutic measures such as daily visits, medication, and treatment recommendations.

In the economic aspect, the most important services were assistance in addressing financial affairs, accepting all types of medical and supplemental insurances, and informing patients of the hospital costs before admission. Regarding public welfare services, the most important hospital hotel services were the accessibility of taxi services at the hospital campus, serving food and drinks in the hospital rooms for the patients and their companions, and deployment of overnight accommodation facilities for the patient's companion in the hospital area.

The subjects' perspective toward the important aspects of safety were an intelligent fire alarm and extinguisher system, preventing the growth and multiplication of insects and animals in the hospital environment, and installation of safety equipment such as barriers and fences.

In the cultural aspect, the most important services reported included providing religious counseling at the bedside and public areas suitable for performing prayers and rituals. In the human dimension, the patients and companions reported paying attention to and respecting ethnic and religious minorities, confidentiality of information related to the patient, and obtaining permission from the patient to start a medical treatment as important aspects.

In the aspect of patient guidance, the most important services were the availability of health facilities such as clinics address and laboratories, and guidance facilities such as signs and markings. Regarding the identification of personnel, the important services were the use of identification badges by service providers and clean and tidy appearance of service providers.

The best hospital hotel services regarding the health care services dimension were providing care services such as injections and medication by a nurse (activity type) and the proximity of the nursing stations to patient rooms.

In the clinical welfare services, the two proposed services included the appropriate processes of diagnostic and treatment services for patients in hospitals and the provision of equipment such as orthopedic devices. Overall, all 96 services investigated in this study for the importance of hospital hospitality services obtained scores of higher than 3 and an importance of higher than average [Table 3].

**Table 3: The mean scores of patients' and their companions' opinions regarding factors affecting hospital hotel services**

Aspects	Mean $\pm$ SD
Physical	3.72 $\pm$ 0.98
Performance	3.78 $\pm$ 0.99
Economic	3.82 $\pm$ 1.05
Public welfare services	3.37 $\pm$ 1.05
Safety	3.78 $\pm$ 1.01
Cultural	3.63 $\pm$ 1.02
Human	3.88 $\pm$ 0.96
Patient guidance	3.46 $\pm$ 1.03
Personnel identification	3.89 $\pm$ 0.98
Care services	3.81 $\pm$ 0.88
Clinical welfare services	3.73 $\pm$ 1.08

## DISCUSSION

The findings of this study illustrated that patients and their companions had evaluated the importance of eight aspects of hospital hotel services components as very high and three aspects as higher than average. The mean total score of the importance of the studied indices was  $3.18 \pm 0.93$ , which indicated the importance of these factors in the hospital hotel services.

Numerous studies were conducted in this field in other communities. However, it seems that in reviewing the quality of these services, the cultural context of each society should be considered. Studies in Iran regarding hospital care quality and patient satisfaction have shown that enhancement of service quality programs can result in patient loyalty and satisfaction.<sup>[15-18]</sup> The highest dissatisfaction was reported regarding hoteling and discharge services. Few studies have been performed on hospital hoteling in Iran. Only in a study in Isfahan, it was shown that in the analysis and evaluation of issues in the implementation of the package of improvement of hospital hoteling service quality, services were classified in five fields and in the case on the implementation of this package, the quality of health, nutrition, and nonmedical services will improve.<sup>[19]</sup>

The results of this study showed that attention to patients' viewpoints is essential for the evaluation of the quality of services. Moreover, hospital managers and supervisors should identify the required standards and outstanding issues of hospital hospitality from the viewpoint of patients and the way it affects the patients.<sup>[20]</sup> Literature review showed that previous studies only addressed the physical aspects of hotel services such as environment, physical space, light, ventilation, and nourishment. However, the present study examined 11 dimensions of hotel services and the human, performance, financial, economic, cultural,

and personnel identification dimensions were not studied in any of the previous researches.

Iranian studies have shown that Iranian patients, in choosing a hospital, consider factors such as the type of hospital, rumors, the reputation of the hospital, service costs, health insurance plans, location, physical environment, equipment, experience of the service providers, and specific individual behaviors.<sup>[19]</sup> Considering the human dimensions, experts believe that honest and appropriate communication, respecting personal values, and respecting human dignity and identity are essential in providing quality services for patients. Respect for human dignity is one of the main principles of the charter of human rights<sup>[19]</sup> and an efficient health system is in need of the provision of humane services. In medical sciences, one of the central principles of the charter of human ethics is respecting the dignity of the patient.<sup>[19,20]</sup> In fact, dignity is closely linked to privacy, respect, independence, and control.<sup>[21]</sup> The Ministry of Health and Medical Education of Iran in 2010 implemented the patients' rights in five topics, including the right to receive quality services, the right to receive appropriate information, the right to choose and decide, the right to receive health services, the right to privacy and confidentiality, and the right to access an effective complaints service to all its affiliated centers. Nevertheless, studies showed that these rights are vague concepts for patients and health service providers<sup>[22]</sup> and they do not have comprehensive information regarding these rights. Furthermore, patients were not satisfied with the services related to respecting their dignity. Mastaneh and Mouseli in 2013 reported that the sensitivity of the patients and their companions toward being respected in the human dimension by the hospital hotel services was high and this issue was their highest priority.<sup>[21]</sup> Given that patients' rights in hospitals are under the influence of economic, social, moral, and cultural factors, the WHO has stated that guidelines on respecting the rights of patients should be implemented based on the specific conditions of each society. The above-mentioned factors indicate that in evaluating and improving hotel services, hospitals should pay special attention to the human dimension.

The results of this study showed that patients and their relatives considered financial-economic issues as important in hospital hotel services. Experts believed that hospitalization costs and economic issues were the key variables in the health care system.<sup>[23]</sup> In recent years, health payments compared to other expenses have increased and the participation of people in these payments has increased to 73% of total health expenditures<sup>[24]</sup> Society, especially individuals with lower middle income, spends a high proportion of their income on health costs and to pay these costs they use their savings and loans.<sup>[23]</sup> In one study, health

insurance was shown to be the most appropriate option with an independent nature that provided the required financial resources through the public participation of healthy subjects,<sup>[25]</sup> however, another study showed that different types of insurance in Iran such as rural and supplemental insurances provided very different conditions for those covered by them.<sup>[24]</sup> The health transformation system that has been implemented since 2014 in Iran seeks to promote the quality of health services and medical education by increasing universal insurance coverage, payment system reform, and reducing payments outside the tariffs.<sup>[26,27]</sup> Thus, the patients' and their companions' requirements considering the appropriate calculations of fees, acceptance of all types of insurance, and provision of services based on costs in the process of hospital hospitality is predictable and fair.

From the perspective of participants in the study, service performance dimension was of great importance. This attention to performance may be due to problems in the public service administrative processes of care and treatment. Although hospitals make efforts regarding administrative processes in relation to the provision of services from admission to discharge to use specific strategies to accelerate the process, in practice, many of these processes are not optimal and are sometimes far from that expected.<sup>[18,28,29]</sup> Some researchers reported patient satisfaction from the hospital general services to be at a lower level compared to the medical and nursing services.<sup>[30]</sup> A meta-analysis study regarding the satisfaction of patients toward hospital emergency centers in Iran showed that patients' satisfaction scores ranged from 24 to 98.4 with an average of 68.9% and is somewhat acceptable.<sup>[31]</sup>

Other aspects of hospital hotel services in this study were also important and had scores of higher than three which indicated an importance level of moderate to high. It was evident that patients cared about issues such as public amenities including nutrition services, hospital transportation, facilities, cleanliness, their companions' accommodation, and shopping. In addition, safety services are a pillar of health and patients expected to be safe from the risks of infection, injury, and fire and be able to use emergency exits during their hospitalization.

Cultural dimensions were also considered important in this study. The majority of Iranians are Muslims and they expect to be able to perform their rituals at the hospital during their hospitalization. Their need justifies the focusing of attention on culture aspects. In addition, patients wanted to be able to use recreational facilities at the hospital such as television and library, but many wards at public hospitals in Iran were not facilitated with them.

The method of receiving nursing care, administrative methods and techniques, and provision of diagnostic services and hospital equipment were also considered crucial matters by the patients and their companions and were addressed in the care services and welfare services aspects. Hospital strategies to help guide the patients, locating the required location, notification systems, separation of personnel based on special clothing, or badges can facilitate their ability to detect and identify people and places and was considered by the participants of this study.

### Strengths

The results of this study can be used to develop a hospital hospitality services assessment tool. The tool that developed based on this study will be client oriented (patients and their companions in hospitals). It can show the importance and the priority of the various aspects of hotel services. A tool is available for accreditation of Iranian hospitals. However, the questionnaire used for this study was based on the needs, beliefs, and attitudes of patients and their companions, and thus, is an appropriate criterion for evaluating hotel hospitality services.

### Limitations

Data collection was performed during patients' hospitalization and while the patients were given time to answer the questionnaire, the multitude of questions and the patients' conditions could affect the correct and accurate answers and limit the accuracy of the study. However, for a better judgment, more comprehensive information needs to be collected so that it can identify the perspective and needs of the Iranian patients with regards to cultural, social, and economic conditions. The results of this study are not suitable for small hospitals or highly specialized hospitals.

The authors suggest that health planners pay more attention to the conditions of hospital hotel services and focus on the important aspects of this service.

In addition, we evaluated and presented both the patients and their families viewpoints, whereas it seems that presenting their viewpoint separately would be more helpful in this field.

### CONCLUSION

The present study showed that in the view of the patients and their companions, factors affecting hospital hotel services in the country are very important. The tool of this study can be a criterion for providing an appropriate model to assess the country's major hospitals' hotel services and accordingly the possibility of evaluating and improving the existing conditions. The present study could be further investigated through reviewing and summarizing the

prepared tool to provide appropriate components for small, private, and professional hospitals.

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### Conflicts of interest

The authors have no conflicts of interest.

### AUTHORS' CONTRIBUTION

All authors contributed in the concept and design of the study. All of them contributed in all stages of the work and read and confirmed the draft of the manuscript.

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