

ORIGINAL RESEARCH

A Survey of Patients' Satisfaction in Emergency Department of Rasht Poursina Hospital

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Abstract

Introduction: Patients' satisfaction (PS) is one of the important indicators of emergency care quality and outcomes of health care services. Some researchers believe that improve the work processes and hospital quality are not possible without caring to comments, requirements, expectations, and satisfaction of patients. The percent study was aimed to assess the emergency department (ED) PS of Poursina hospital, Rasht, Iran. **Methods:** In this descriptive cross sectional study, the samples was selected from 378 patients admitted to ED of Poursina Hospital, Rasht, Iran, 2013. For each patient a check list and a questionnaire, including 37 questions about PS, were filled that had categories like physical comfort and residential aspects, physicians care, nurse care, behavioral aspect, and waiting time for service presentation. Data were analyzed by SPSS version 16. **Results:** Entirely, 378 patients were entered to the study with mean age of 38.44 ± 17.8 (60.8% male). The mean score of total satisfaction of ED patients was 106.94 ± 13.62 (range: 72-144). The mean score of physical comfort was 33.25 ± 4.76 out of the highest obtainable score of 55, nurse care 25.33 ± 5.13 out of 40, physician care 24.34 ± 3.38 out of 40, waiting time for services 13.42 ± 5.48 out of 30, and behavioral aspects 10.58 ± 2.66 out of 20. There were significant relation among PS, sex ($P=0.0001$), and the shift of admission ($P=0.023$). **Conclusion:** The findings of percent study showed that giving services to emergency clients in various fields such as physical comfort and residential aspects, physicians care, nurse care, and the total ED satisfaction is relatively agreeable. The periodic and continuous assessment as well as comparison of satisfaction and dissatisfaction parameters during the time, before and after performing the changes, could be effectual.

Key words: Patient satisfaction; emergency service, hospital; health care quality, access, and evaluation; patient safety

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Introduction:

Patients' satisfaction (PS) is one of the important indicators of emergency care quality and outcomes of health care services (1-3). Some researchers believe that improve the work processes and hospital quality are not possible without caring to comments, requirements, expectations, and satisfaction of patients. Thus, PS has increasingly turned to one of the significant tools in evaluation of hospital performances (2). PS is not a new concept, but because of predominance of customer-focused strategy in health care services, using satisfaction index of health care clients has been entered to the evaluation scope of hospitals since two decades ago (4, 5). PS is the measure of quality in health care understood by patients and the resultant of different complicated factors (6). Several

factors should be coordinated with each other to make an appropriate condition for creation and development of PS with observing patient's right completely in all aspects (7). Getting PS is one of the principles of medical ethics and the physician should have consult with patient in making any decision. Daily, several patients with serious condition are referred to the emergency department (ED) of hospitals. Considering to the especial importance of ED, increase the satisfaction in this ward has a remarkable effect on people's attitude toward the hospital (ED is the symbol of the whole hospital). EDs are confronted with challenging issues lead to reduce the PS (1). The satisfaction of ED clients cannot be achieved without assessment, study, and practical plan to promote the quality of services (2). Noticing to this issue, this study was performed to find effective factors on patient satisfaction and enhance them toward improve the quality of ED services.

Methods:

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Study design and setting

In this cross-sectional study, cases were chosen by a regular random selection among referees to the ED of Poursina hospital, Rasht, Iran, in 2012. Totally, 378 patients were enrolled and selected in this study. Inclusion criteria were having age over 15 years and hospitalization in the emergency center for more than five hours. Exclusion criteria were significant impairment of cognition (attention, recent memory, understanding questions, etc.), having a very bad ill appearance so that the patient could not answer the questions, and patients died. Selected patients after ending their hospitalization at the ED were interviewed by project partners trained to have dealing with patients and design the questionnaire in a way to prevent patient's bias in answering.

Patients were asked in a calm condition (without presenting of health care and non-health care stuffs). No comment was put on the files of patients entered to the study. The patients who had enough literacy to fill the questionnaire filled it by themselves if not; it was read by the questioner for them to answer. During reading the questions, there was no shift or bias in expressing by the questioner.

Questionnaire

For evaluating of PS, the Omidvari et al. questionnaire contained 39 questions was used (8). Two questions (about elevators' status and using bathroom in ED) in the welfare facility section were removed because they were not applicable in the studied department. Final questionnaire had 37 questions in five sections including physicians care (8 questions), nurse care (8 questions), behavioral aspects (4 questions), physical comfort and residential aspects (11 questions), and waiting time to receive emergency services (6 questions). Cronbach's coefficient alpha for whole questionnaire (37 questions) was 0.91 and for each section as follow: 0.89 in physicians care, 0.90 nurse care, 0.70 behavioral aspects, 0.93 physical comfort and residential aspects, and 0.70 waiting time. There was five options for answering to each question based on Likert scale, which scores of five to one given to answers very much, very, average, low, and very low, respectively. In evaluating of each question, low and very low answers were considered as dissatisfaction. In some questions, regarding the feedback of responders, the sixth option was added which means that the question was not applicable. Therefore, the scores of 11-55 were determined for physical comfort and residential aspects, 8-40 for physicians and nurse care, 4-20 for behavioral aspects, 6-30 for the waiting time to receive emergency services, and 37-185 for total satisfaction. The poor, average, and good scores were defined for each section as below: For physical comfort and residential aspects respectively 11-25, 26-40, and 41-55, physicians and nurse care 8-

18, 19-29, and 30-40, behavior aspects 4-9, 10-14, and 15-20, the waiting time to receive emergency services 6-13, 14-22, and 23-30, and total satisfaction 37-85, 86-135, and 136-185. Background information such as age, sex, marital status, education level, history of hospitalization in the studied ED, the work shift patients referred, the length of staying in ED, the general comment of patient regarding ED, and total satisfaction level of the patient were separately collected in specific designed data sheets.

Statistical analysis

Description of qualitative variables was performed by frequency tables and quantitative variables by calculation of mean \pm standard deviation. After computation of scores, each of five section and total of satisfaction scores (comprehensive satisfaction) were assessed, then the distribution of achieved scores was analyzed using Kolmogorov-Smirnov test (K-S test). Statistical analysis was done using SPSS version 16. The significant level was considered as $p < 0.05$.

Results:

Entirely, 378 patients were entered to the study with mean age of 38.44 ± 17.8 (60.8% male). [Table 1](#) summarized the background information of studied patients. 336 (88.8%) patients did not have the history of hospi-

Table 1: The background information of studied patients [↑](#)

background information	Number (%)
Sex	
Male	230 (60.8)
Female	148 (39.2)
Age	
15-35	210 (55.6)
36-50	86 (22.8)
51-65	40 (10.6)
65<	42 (11.1)
Education	
Below diploma	156 (41.3)
Diploma to graduate	210 (55.6)
Graduated	12 (3.2)
Marital status	
Single	97 (25.7)
Married	281 (74.3)
The history of hospitalization	
Yes	32 (8.5)
No	346 (91.5)
The shift of ED admission	
Morning shift	163 (43.1)
Evening shift	79 (20.9)
Night shift	136 (36)
Duration of hospitalization (hours)	
<6	90 (23.8)
6-12	166 (43.9)
12-18	68 (18)
18<	54 (14.3)



talization in ED. One hundred sixty three (43.1%) cases were hospitalized in the morning shift, 136 (36%) ones in night, and the rest in evening. Regarding ED length of stay, 90 (23.8%) patients were hospitalized less than six hours (Table 1). Table 2 shows the mean satisfaction scores of five sections as well as total satisfaction score. The mean score of total satisfaction of ED patients was 106.94 ± 13.62 (range: 72-144). The mean score of physical comfort was 33.25 ± 4.76 out of the highest obtainable score of 55, nurse care 25.33 ± 5.13 out of 40, physician care 24.34 ± 3.38 out of 40, waiting time for services 13.42 ± 5.48 out of 30, and behavioral aspects 10.58 ± 2.66 out of 20. Distribution of mean satisfaction scores in each five sections was categorized based on pre-defined scores (The poor, average, good) in table 3 and figure 1. The analysis showed a significant correlation between total ED satisfaction with sex ($p=0.0001$) and admission shift ($p=0.023$). Such a relation was not seen between total ED satisfaction and age ($p=0.33$), marital status ($p=0.12$), educational level ($p=0.68$), the previous history of ED ($p=0.26$), ED length of stay ($p=0.07$). The total ED satisfaction score was 2.9 out of 5 compare to whole hospital satisfaction 2.78 out of 5 ($p<0.05$).

Discussion:

The findings showed the total satisfaction score of studied ED as an average level, based on pre-defined level. Among five studied sections, waiting for service time and behavioral aspects gained the maximum dissatisfaction with 53.2% and 44.2% poor level, respectively.

Here, total score of each five assessed sections related to physical comfort and residential aspects, physicians care, nurse care, behavioral aspects, and waiting time for service are on average level; but the noticeable point was about nurse care aspect that with 18.3% of good score had the best level among five sections. In addition, behavioral aspect and waiting time for services had the average scores among five sections with 44.2% and 53.2%, respectively. A significant relationship was seen between total satisfaction and admission shift so that the morning shift, as the most crowded work shift, had the highest level of PS. The study of Pines et al. about the effect of ED crowding on PS revealed an indirect effect of crowding on satisfaction (9). Also Weiss et al. showed significant relationship between the ED overcrowding and the number of patients who leave ED without being seen as one of the probable indicators of PS (10). Interesting findings of the present study could be arisen from the high number of ED stuffs in the morning shift, subsequently the better speed and quality of services than other times. It seems that the number of stuffs, quality and duration of services, and considering the needs of patients should be more noted to prevent such problems. In this project, there was near significant correlation ($p=0.07$) between the length of ED stay and PS. The study of Rodi and colleagues declared that all domains of PS were significantly correlated with the length of stay (11). Christopher et al. concluded that reducing the length of ED stay is Direct

Table 2: Mean satisfaction scores in each five sections were categorized based on pre-defined scores [↑](#)

Sections	Mean± SD (range)
Physical comfort and residential aspects	33.2±4.8 (23-43)
Physicians care	24.3±3.4 (14-34)
Nurse care	25.3±5.1 (13-38)
Behavioral aspects	10.6±2.7 (4-18)
Waiting time for service	13.4±5.5 (6-30)
Total satisfaction	106.9±13.6 (72-144)

Table 3: Mean satisfaction scores in each five sections were categorized based on pre-defined scores [↑](#)

Sections	The poor n (%)	The average n (%)	The good n (%)
Physical comfort and residential aspects	12 (3.2%)	341 (90.2%)	25 (6.6%)
Physicians care	21 (5.6%)	328 (86.8%)	29 (7.7%)
Nurse care	25 (6.6%)	284 (75.1%)	69 (18.3%)
Behavioral aspects	167 (44.2%)	173 (45.8%)	38 (10.1%)
Waiting time for service	201 (53.2%)	155 (41.0%)	22 (5.8%)
Total satisfaction	18 (4.8%)	351 (92.9%)	9 (2.4%)



relation with decrease in the number of patients who leave without seeing a physician (12). Regarding behavioral aspect, holding workshops about how deal with patients and justify physicians, students of ED, nurses, and stuffs could greatly help improving PS regarding behavioral aspect. Some researchers believe that the viewpoint of patients into waiting time has a more critical role in satisfaction level than the real waiting time (11, 13). In other words, it is probable that waiting time has been justified for patients with explaining about the reason of expectation and necessary works done in the estimated time. Moreover, because of the enormous workload of physicians in ED of Poursina Hospital, it is not possible to explain the disease, incidence, and treatment processes performed by physician in all details for each patient; thus, by increasing the number of physicians in these centers, the assignments of these persons can be decreased and the satisfaction level of patients improved, too. Efforts should be focused in decrease the waiting time for services and improve the behavioral aspects of stuffs. To reach this goal, using the results of periodic assessment of PS level, as a critical indicator in health care quality and applying it in quality management is necessary to create changes based on achieved results. Because perform changes in services presentation needs the intervention in terms of the project.

Conclusion:

The findings of percent study showed that giving services to emergency clients in various fields such as physical comfort and residential aspects, physicians care, nurse care, and the total ED satisfaction is relatively agreeable. The periodic and continuous assessment as well as comparison of satisfaction and dissatisfaction parameters during the time, before and after performing the changes, could be effectual.

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Conflict of interest:

None

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Authors' contributions:

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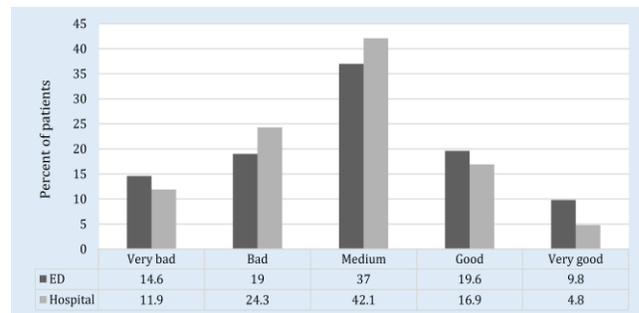


Figure 1: Distribution of emergency department (ED) satisfaction level in comparison to whole hospital condition [↑](#)

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