Patient satisfaction according to the form of hospital stay at a teaching hospital

A satisfação dos pacientes segundo a forma de internação em hospital universitário

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Abstract

Objective: To analyze the patients' satisfaction according to the form of hospital stay at a teaching hospital.

Methods: Cross-sectional study involving 366 patients over 18 years of age, hospitalized at clinical and surgical wards between January and June 2014, whose outcome was discharge within 15 and 30 days. The Mann-Whitney test was applied to analyze independent samples for intergroup comparison.

Results: In total, 99.4% of the patients hospitalized through the emergency service and 98.4% of the inpatients were satisfied and highly satisfied, with mean satisfaction rates of 5.66 and 5.55, respectively. The mean satisfaction score was higher on all attributes for the emergency group. The intergroup comparison of the Nursing team attributes and general satisfaction did not demonstrate statistical significance.

Conclusion: The patients' high level of satisfaction with the health service evidenced the quality of care at the teaching hospital from the patient’s perspective. The same high assessment of the satisfaction with nursing was found between the groups.

Keywords
Patient satisfaction; Mecanismos de avaliação da assistência a saúde; Nursing service, hospital; Nursing audit; Quality of health care

Descritores
Satisfação do paciente; Health care evaluation mechanisms; Serviço hospitalar de Enfermagem; Auditoria de Enfermagem; Qualidade da assistência à saúde

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Introduction

The increasing life expectancy of the population and the higher morbidity and mortality due to cerebrovascular and coronary diseases, for example, are factors that have contributed to the growth in the demand rates for health services. (1) Thus, the quality of health services has been a constant concern in the health management area, fomenting the discussion on the need to adopt new care models for the delivery of more complex and lengthier care. (2)

Different problems exist in the health system that need to be reconsidered. One of them is the patients’ entry door for inpatient services. The overcrowded emergency services and long waiting times for elective inpatient services at the admission sector evidence this problem. Therefore, based on professional Nursing experience at a hospital, knowledge on the patients’ profile is relevant and the service need to prove the quality of the care they deliver, considering patient satisfaction as one of the assessment criteria.

Emergency care is characterized as the “bottleneck” of the Brazilian health system. It attends to patients in acute health situations and/or at imminent risk of death, but also low-complexity patients. This sector’s installed capacity is frequently surpassed as the patients spend a long time waiting for a bed, including many patients per health professional. In an international study, the emergency sector was differentiated from fast-care services, so that patients in acute health situations would not await care. In addition, they emphasized that having physicians and expert nurses is an excellent model for the quality of patient care. (3)

At the hospital where this study was undertaken, after the conclusion of emergency care, the patients who need inpatient services are forwarded to clinical or surgical wards, depending on the availability of a bed. These hospital areas are characterized by having a defined number of beds whose occupation does not surpass the installed capacity. The areas have a preset nursing staff, dimensioned to favor an appropriate proportion of patients per professional, aiming for high-quality care. The services also attend to stable patients from elective services who were hospitalized through the admission sector, characterizing an entry process into the system through planned care that was programmed in advance. This context means that, at an inpatient service, patients will be present who entered the hospital in two different ways, arousing questions that the entry form may influence the perceived service quality.

The definition of quality includes the level of professional excellence, efficient use of resources and high degree of patient satisfaction. (4) Patient satisfaction is defined as an individual’s reaction to the most noteworthy aspects of his hospital care. This behavioral response occurs when an individual’s cognitive assessment of care aspects corresponds to or surpasses personal subjective standards. (5) It should be highlighted that the hospital management already acknowledged that the bad quality of health services is closely related with low satisfaction rates and, consequently, with the rise in the institution’s costs. (6)

Some studies support that the main bond between the user and the hospital occurs through the Nursing service, constituting the main group of health professionals, which maintains uninterrupted contact with the patient, promoting the maintenance, recovery and rehabilitation of health through care. (7,8) The nurses are ideal professionals to inform about the characteristics of the organizations where they work, due to their proximity with the users. (7)

This assessment favors a better planning of care, identifying the attributes that contribute or not to the patients’ satisfaction. (7) Care delivery at the inpatient services has attributes that stand out during the hospitalization through the admission sector, the medical, nursing, nutrition, cleaning and hospital discharge teams. The nurse, articulating the sequence of these different professionals’ actions, naturally takes charge of administering the appropriate functioning of the services.
In Brazil, as from 1990, the health system stood out by the proposal to open the institutions’ doors for all citizens (or individuals) to be attended to without any type of discrimination.\(^9\) Quality research developed with the advent of the health system, including the community’s participation in the assessment and planning processes.\(^8,9\) Although this participation has not been formally structured in the hospital institutions, patient satisfaction research is used as an important indicator. In addition, the ombudsman, the sector that mediates situations between the users and the health institution, can also represent an incipient strategy to include the users’ opinion in the planning of health actions.

Characterizing the patients attended at the health services is fundamental to set priorities and plan the managers’ actions in view of the quality of care.\(^10\) Studies highlighted variables that can interfere in the patients’ satisfaction, demonstrating that age predicts satisfaction.\(^11,12\) Younger users presented lower satisfaction levels with care. In addition, sex is the variable that can also be related with satisfaction, as women reported higher levels of satisfaction than men.\(^11\)

In view of the above aspects, the objective in this study was to analyze the patients’ satisfaction according to the form of hospitalization - emergency care and inpatient care - at a teaching hospital.

**Methods**

A cross-sectional survey with a quantitative approach was undertaken between January and June 2014, as part of the seminal project entitled Satisfaction with care in public hospitals: a social commitment to the user. The users were contacted when they were no longer at the hospital.

The study was developed at the Hospital de Clínicas de Porto Alegre, a public, general teaching hospital affiliated with the Unified Health System (SUS). This was the first public teaching hospital in the country to receive the international accreditation seal of the Joint Commission International (JCI).\(^13\)

The emergency sector of the Hospital de Clínicas de Porto Alegre could accommodate 49 adult and 9 pediatric patients, but attended almost 120 patients daily, surpassing its capacity. The emergency Service delivered care to more than five thousand patients per month, coming from different places in Rio Grande do Sul and other States.

The clinical and surgical inpatient services in this study were located in the South and North wings, and attended to adult patients. The services in the North wing consisted of 15 three-bed wards each, totaling 45 beds. In the South wing, there were private and semi-private rooms, totaling 34 beds each.

The population consisted of patients hospitalized at clinical and surgical inpatient services. The sample consisted of two groups according to the hospitalization form (through the emergency service and the admission). The estimated sample size was calculated based on the patients discharged from each service, adding 10% for possible losses, resulting in 312 users. For the emergency group, 148 users were estimated and, for the admission group, 164 users.

The inclusion criteria were: users over 18 years of age, who were hospitalized for more than 48 hours and were discharged less than 30 days earlier. When the patients were unable to answer the interview, it was held with a legal responsible who had accompanied the hospitalization.

Users who left or were transferred to another hospital, who died or who were hospitalized again at the time of the telephone contact were excluded.

In the research, a tool was used with two sets of data: sociodemographic variables and patient satisfaction attributes. The sociodemographic variables were nine items related to the patient, such as: age, sex, marital status, years of study, health insurance, whether the patient was staying in the room along, number of patients in the room and hospitalization period.

The satisfaction was verified through a tool elaborated in an earlier study to measure the users’ satisfac-
tion.\textsuperscript{(14)} It was adapted and tested in the phase called pretest and applied as a pilot tool in the seminal project. The satisfaction attributes in the original tool were produced based on interviews and subject to statistical analysis; significant attributes were selected for inclusion in the final version: two related to the admission, two to the discharge; two to the medical team; four for the nursing team; four for the nutrition team; two for the cleaning team and one to assess the general satisfaction. The satisfaction measure for each attribute used a six-point Likert scale, ranging from highly dissatisfied (1 point), dissatisfied (2 points), somewhat dissatisfied (3 points), somewhat satisfied (4 points), satisfied (5 points) and highly satisfied (6 points) for each attribute.

The study received help from scientific initiation grantees, who were trained and followed a data collection protocol. The research consisted of three steps, according to figure 1.

The patients were selected in multiples of five, avoiding a selection bias and respecting the proportionality of the discharges from each service. A specific database was created for this study in an Excel\textsuperscript{®} 2011 worksheet, which was analyzed using the software Statistical Package for Social Sciences\textsuperscript{®}, version 19.0, for the operating system IOS\textsuperscript{®}, between January and June 2014.

For the categorical variables, the relative and absolute frequencies were calculated and, for the continuing variables, the mean (standard deviation) or median (interquartile interval), depending on the distribution of the variable. The chi-square test was applied to analyze the difference between the two groups (emergency and inpatient). The Shapiro-Wilk tests were used to test the normality of the sample. To compare the satisfaction of the users hospitalized through the emergency and inpatient services, the Mann-Whitney test was used. Significance was set at $p \leq 0.05$.

The study was registered in Brazil under the Platform Presentation of Certificate number to Ethics Assessment (CAEE) 07948212.1.0000.5327.

**Results**

The research subjects were 366 patients, 174 hospitalized through the emergency services and 192 through
the inpatient service. The patients’ sociodemographic characteristics for the two groups have been demonstrated in table 1. The variables admitted through the emergency service, alone in the room, marital status, health insurance and years of study obtained 1, 1, 16, 4 and 21 losses, respectively, due to the non-completion of these data in the tool. These variables did not interfere in the results because 10% was added in the calculation of the sample size. Considering the outcome user satisfaction according to the hospitalization form, it was observed that 99.4% of the patients hospitalized through the emergency service and 98.4% of the patients hospitalized through the inpatient service answered they were satisfied or highly satisfied with the care received. For the emergency group, the mean satisfaction rate was higher for all attributes when compared to the admission group (Table 2).

Table 1. Characteristics of patients hospitalized through emergency and inpatient care

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total n(%)</th>
<th>Emergency n(%)</th>
<th>Inpatient n(%)</th>
<th>p-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>176(48.0)</td>
<td>84(48.3)</td>
<td>92(47.4)</td>
<td>0.676</td>
</tr>
<tr>
<td>Female</td>
<td>190(52.0)</td>
<td>96(51.7)</td>
<td>94(49.6)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>366(100.0)</td>
<td>180(100.0)</td>
<td>186(100.0)</td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
<td>0.251</td>
</tr>
<tr>
<td>18-39</td>
<td>75(20.4)</td>
<td>33(19.0)</td>
<td>42(21.9)</td>
<td></td>
</tr>
<tr>
<td>40-59</td>
<td>112(30.5)</td>
<td>48(27.6)</td>
<td>64(33.3)</td>
<td></td>
</tr>
<tr>
<td>&gt;60</td>
<td>179(49.0)</td>
<td>90(51.7)</td>
<td>89(45.8)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>366(100.0)</td>
<td>174(100.0)</td>
<td>192(100.0)</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td>0.748</td>
</tr>
<tr>
<td>With partner</td>
<td>188(51.2)</td>
<td>86(49.4)</td>
<td>102(53.1)</td>
<td></td>
</tr>
<tr>
<td>Without partner</td>
<td>163(44.4)</td>
<td>77(44.3)</td>
<td>86(44.3)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>351(95.6)</td>
<td>163(93.7)</td>
<td>188(97.4)</td>
<td></td>
</tr>
<tr>
<td>Years of study</td>
<td></td>
<td></td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>&lt;8</td>
<td>175(47.7)</td>
<td>97(55.7)</td>
<td>78(40.6)</td>
<td></td>
</tr>
<tr>
<td>&gt;8</td>
<td>171(46.6)</td>
<td>61(35.1)</td>
<td>110(56.8)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>346(94.3)</td>
<td>158(90.8)</td>
<td>188(97.4)</td>
<td></td>
</tr>
<tr>
<td>Health insurance</td>
<td></td>
<td></td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>SUS</td>
<td>285(77.7)</td>
<td>161(92.5)</td>
<td>124(64.6)</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>78(21.3)</td>
<td>10(5.7)</td>
<td>68(35.4)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>363(99.0)</td>
<td>171(98.2)</td>
<td>192(99.5)</td>
<td></td>
</tr>
<tr>
<td>Respondent</td>
<td></td>
<td></td>
<td></td>
<td>0.02</td>
</tr>
<tr>
<td>Patient</td>
<td>261(71.1)</td>
<td>114(65.5)</td>
<td>147(76.6)</td>
<td></td>
</tr>
<tr>
<td>Family member</td>
<td>510(29.9)</td>
<td>60(34.5)</td>
<td>450(23.4)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>366(100.0)</td>
<td>174(100.0)</td>
<td>192(100.0)</td>
<td></td>
</tr>
<tr>
<td>Single room</td>
<td></td>
<td></td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Yes</td>
<td>62(16.9)</td>
<td>19(10.3)</td>
<td>43(22.4)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>304(82.8)</td>
<td>156(89.7)</td>
<td>148(77.1)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>366(100.0)</td>
<td>174(100.0)</td>
<td>192(100.0)</td>
<td></td>
</tr>
<tr>
<td>Patients in room</td>
<td></td>
<td></td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Alone</td>
<td>61(16.9)</td>
<td>18(10.3)</td>
<td>43(22.4)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>130(37.1)</td>
<td>54(31.0)</td>
<td>76(39.4)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>155(42.2)</td>
<td>91(52.3)</td>
<td>64(33.3)</td>
<td></td>
</tr>
<tr>
<td>3 or more</td>
<td>14(3.8)</td>
<td>11(6.4)</td>
<td>3(1.6)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>366(100.0)</td>
<td>174(100.0)</td>
<td>192(100.0)</td>
<td></td>
</tr>
<tr>
<td>Hospitalization period**</td>
<td>13.6(2.231)</td>
<td>17.8(2.231)</td>
<td>9.82(2.83)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

*Chi-square test; **mean (minimum, maximum); SUS - Unified Health System
The lowest mean satisfaction levels were found for the attributes of the nutrition and cleaning teams, when compared to the other attributes for the two groups, showing a statistically significant difference.

**Discussion**

The limitations in this research were: the analysis of a single place of study; the short duration of the interview; and the possible bias of gratitude for users hospitalized through the emergency sector. This study contributed by demonstrating the quality of care delivery at a teaching hospital from the patient’s perspective and discussing it based on the use of updated references in the light of the international literature.

Concerning the characteristics of the patients’ profile, it was observed that, for the admission group, the results are in accordance with studies that indicated the predominance of women (52%) and adults (50.9%) in the hospitalizations. For the group hospitalized through the emergency sector, however, the highest hospitalization frequency was for elderly patients (51.7%). The health needs of elderly people are complex and need to be known and addressed in the health services. These are users who truly need hospitalization through the emergency sector as, from the management perspective, there is a clear weakness in the health system to prevent elderly people’s diseases. The only support the elderly at the emergency service received from the primary care network was medication distribution; other services, such as home visits, consultations with the health team and groups were not offered. This fact possibly suggested that the type of support received is more related to punctual actions than to professional care - probably due to the higher problem-solving ability of the emergency service in punctual actions.

These study findings are in accordance with a cross-sectional study that affirmed that SUS users (77.7%) with low education levels (47.7%) are predominant at the emergency sector. The elderly at the emergency sector of the Hospital...
de Clínicas de Porto Alegre, that is, who exclusively use the SUS, had 4.4 years of study.\(^{(12)}\)

This aspect directly affects the users’ satisfaction with the health services. It was demonstrated that higher educational levels are associated with lower user satisfaction levels. This was actually evidenced in the admission group’s satisfaction results, with lower mean satisfaction rates than in the emergency group.\(^{(15,16)}\)

In 71.1% of the cases, the patients themselves answered the research tool. These results were similar to a research that used the same data collection method (by telephone), indicating that, in 68.6% of the interviews, the patient answered, without any statistically significant difference between the companions and the patients’ satisfaction.\(^{(15)}\)

The hospitalization period was shorter for the admission group (9.8 days) than for the emergency group (17.8 days). The hospitalization period of the users forwarded by the emergency service was similar to the mean 18 days of hospitalization at a surgical inpatient service of a teaching hospital in Ancara, Turkey.\(^{(17)}\) In addition, that group demonstrated higher mean satisfaction with care. This finding – longer hospitalization and higher satisfaction – differs from the results of an international study that associated a correlation model, identifying that, when the quality of care is high, the hospitalization is shorter and the satisfaction results are better.\(^{(18)}\)

Developing satisfaction research some time after the care was provided or at the patients’ homes is related to the “late satisfaction” effect, that is, with the satisfaction with care. People tend to be more critical over time and, to the extent that their expectations are surpassed, new expectations arise, making them more demanding.\(^{(10)}\) The development of the research by telephone was one of the advantages of the selected method and also captured more respondents.

The applicability of the patient satisfaction research results in Nursing practice demonstrated these professionals’ concern with the quality management of care delivery from the patients’ perspective. When hospital have nurses who understand the context of the health services, they can perform their activities focused on care quality. Hence, they assist the users in a broader sense, working to get to know them and attend to their expectations regarding care and available services.\(^{(15)}\)

The nursing team spends most of the time with the patient and often serves as a reference framework.\(^{(7)}\) Nevertheless, the acknowledgement of Nursing work from the user’s perspective is extremely relevant for this team. The comparative analysis of the results obtained by each of the patient groups in the study - emergency and admission - evidenced no statistically significant difference between the groups, revealing that the patients acknowledge the same care pattern concerning the Nursing team attributes and the assessment of the general satisfaction.

The study demonstrated that the patients showed a higher mean satisfaction level for the attributes of the Nursing team and for general satisfaction. Highly similar results were found in Brazilian studies, in which 99% of the patients demonstrated they were satisfied with the Nursing services provided in the hospital context, highlighting high satisfaction levels (92%) with Nursing care at a teaching hospital. International studies also appoint that the satisfaction results with the Nursing team are high.\(^{(8,19,20)}\)

It should be highlighted that the Hospital de Clínicas de Porto Alegre has a systemized and solid Nursing process, serving as an example for the other university hospitals and implementing individual Nursing care for all users. The systemization of nursing care is a tool capable of guiding the professionals in the conscious and technical and scientifically competent care.\(^{(19)}\)

This study supported others that have demonstrated high user satisfaction levels at gastroenterology, inpatient and hospital services.\(^{(19,20)}\) The group of patients hospitalized through the emergency service demonstrated a higher satisfaction level on all attributes when compared to the group hospitalized through the admission service. This can be related to a bias of gratitude and to the feeling that certain patients can present when they get care, making possible problems in care move to the background.\(^{(7)}\)
Nevertheless, high satisfaction levels can be explained by the fact that the hospital characteristics are associated with users’ high general satisfaction levels. As a large and high-complexity university hospital with a high technological level, which conquered recognition in the users’ community, they feel satisfied.\(^{(21)}\)

This study demonstrated that most of the hospitalized users came from the admission sector. This also covers the discussion on the overcrowding of the emergency sector as a result of the inefficiency of the management processes in the health network, leading to a deficient quality of care in this sector. It should be highlighted that measuring the quality of care in the emergency sector should be an indicator of the Brazilian health services, as it was demonstrated in the international sector that, in Australia for example, this already stands out as one of the most important indicators in the health services.\(^{(22)}\)

Concerning the satisfaction attributes, a study developed in public and private hospitals in Ethiopia refers that cleaning is one of the determinants of satisfaction at public hospitals.\(^{(23)}\) In this study, the patients’ satisfaction with the cleaning team attributes obtained lower means in relation to the other attributes for the two groups analyzed, with statistically significant differences between them.

It was demonstrated in a research that the only attribute with the lowest satisfaction level was the food. This supports the findings in this study, in which the lowest mean satisfaction level referred to the quality of the meals for the admission group.\(^{(11)}\)

**Conclusion**

This study revealed that, differently from the admission group, elderly people are the group that most need hospitalization through the emergency sector. Thus, they face problems like overcrowding and long waiting times, revealing the weakness of the health system for this population. Nevertheless, the patients were satisfied with the care received at the teaching hospital. The only satisfaction attributes that did not obtain statistical significance in the comparison of the two groups’ results were the Nursing services provided and the general satisfaction, revealing that both emergency patients and inpatients agreed on the quality of Nursing care, emphasizing its acknowledgement from the patients’ perspective.

**Collaborations**

Molina KL and Moura GMSS declare that they contributed to the conception of the project, analysis and interpretation of the data, writing of the article, relevant critical review of intellectual content and final approval of version for publication.

**References**


