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# DETERMINING FACTORS REGARDING THE SATISFACTION OF HOSPITALIZED PATIENTS IN A PUBLIC HEALTH UNIT

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**ABSTRACT**

*For the public health system in Romania, the opinion of patients and one of the doctors has become an important source of information in detecting problems and developing effective action plans to improve the quality of medical services. Subjects were included in the cross-sectional study conducted through qualitative and quantitative methods. From a total of 592 hospitalized patients between October 2021 and March 2022, 41% completed the satisfaction evaluation questionnaires. According to the obtained results, it is found that socio-demographic variables influence the level of satisfaction of hospitalized patients. Thus, women tend to have a lower level of satisfaction than men, in terms of the quality of accommodation and food and pay more attention to communication with the attending physician. Both men and women had a satisfactory overall impression of the quality of care received at discharge. There was also an increased level of satisfaction for rural patients in all areas, but lower scores for patients with higher education, who were less satisfied with the quality of accommodation, food and cleanliness. In conclusion, when conducting a patient satisfaction survey, one must be aware of the effect of many variables on patient responses.*

*Keywords: Questionnaire, medical services, quality management, patient satisfaction, quantitative analysis, qualitative analysis, variables*

## Introduction

Interconnecting patient safety and satisfaction has become a major goal contributing to the evaluation and continuous improvement of healthcare quality, and is a predictor of future behaviors, patient retention and intention to return for care. For this reason, medical prognosis has been shown to be better in patients who report a high level of satisfaction with the medical care they receive. However, the results of patient satisfaction assessment are not always similar to those of professional assessment, as the patient tends to focus on interpersonal relationships that they can understand and evaluate more easily, as opposed to technical or specialist profiles that they can evaluate more poorly (1) .

For public health system in Romania, the opinion of patients, and the one of the doctors, has become an important source of information in detecting problems and developing effective action plans to improve the quality of healthcare services (2,3). Most of the research work on patient satisfaction in Romania started in 1997, following the reform of the health care system (4), with the aim of assessing the reaction of the population to the introduction of the new health insurance system.

At international level, various research studies have been carried out for a long time

now, focusing on patient satisfaction, and are increasingly being used as a basis for improving the quality of healthcare services and the management of healthcare facilities (5).

Patient awareness and satisfaction grow in step with technological processes and therapeutic procedures, so excellent healthcare starts with a patient-centred perspective and only then can the success of the hospital, the efficiency and professionalism of the medical staff be validated.

## Material and Method

The cross-sectional study was carried out using qualitative and quantitative methods, with 240 patients admitted to the Railways Clinical Hospital Constanta between October 2021 and March 2022. The patients were asked to complete a patient satisfaction questionnaire, which is a method of collecting and processing their opinions on the medical services provided, as a way of measuring the performance of the quality management system.

Subjects included in the study: out of a total of 592 patients admitted during the above-mentioned period, 240 of them, i.e. 41%, completed the satisfaction assessment questionnaires, and the low number is also due to categories of patients with a special clinical situation, for example, the Neurology clinical ward has a large number of patients with cognitive disorders.

Subjects excluded from the study: patients with serious physical or mental pathologies, such as terminal illness and psychosis, which could make it difficult to understand and complete the questionnaire.

Collection of information for the study: the parameters included in the questionnaire are divided into several sections as follows:

- a section with socio-demographic variables, such as age, gender, background, education level and marital status, in order to frame the patient;
- a section containing 7 questions with answers divided into two notions: Yes/no, relating to the accessibility of medicines and health supplies, the quality of medical care provided and the quality of information given to both the patient and his/her family, the intention to return to the same hospital if necessary
- a section in which they gradually rate the assessment in 3 steps: "Unsatisfactory", "Good" and "Very good", for the quality of accommodation conditions, the quality of cleanliness and food and the assessment of friendliness and availability of medical staff
- a free section in which the patient expresses his/her opinions, suggestions and comments to the hospital management on positive and/or negative aspects of the medical care during hospitalisation and improvement of the services provided by the hospital.

The purpose of collecting all information is to outline the patient's perception of the satisfaction of their requirements and to form an overall picture of the medical services provided by the hospital.

However, patient satisfaction is a subjective process and patient expectations depend not only on age, education level or background, but also on their trust in the medical staff and the quality of medical services they receive.

Characterisation of the methods applied: the study is based on a quantitative analysis, characterised psychometrically, and a qualitative analysis, in which the information collected are descriptive and conceptual findings. The data collected from the evaluation of patient satisfaction questionnaires are used as a tool for descriptive statistical analysis, with validity and reliability as its main qualities.

According to Altheide & Johnson, 1994, reliability refers to the consistency of the findings, while validity is represented by the veracity of the findings (5). Thus, in this paper, to determine validity, patient satisfaction was assessed using the hedonic test, with different levels of satisfaction, and in terms of reliability, the consistency of responses measures whether the level of satisfaction remains constant, relative to the internal framework measured.

Software used for statistical analysis of the data: IBM SPSS Statistics, version 28.0 was accessed. This software allowed data analysis,

provided predictions of numerical results and predictions for identifying target groups.

## Results and Discussions

The results are obtained by measuring inpatients' satiety, and the most eloquent ones were identified according to different factors such as: gender, residence environment and education level.

The average age of the study participants is 62.3 years and only 2% of those surveyed are under 30 years old. 61% are male and 39% female, and of these 64% are married. It was found that the majority of the participants in the study 42% have graduated from high school and only 5% have primary education. Out of 240 completed questionnaires, 39% were completed by patients from rural areas.

*Table 1. Socio-demographic data of the total sample*

| Variables | Number of completed questionnaires / 240 total | Percentages |
|---|---|---|
| Age | | |
| <30 | 5 | 2% |
| 30-39 | 6 | 3% |
| 40-49 | 20 | 8% |
| >50 | 209 | 87% |
| Gender | | |
| Women | 147 | 61% |
| Men | 93 | 39% |
| Living area | | |
| Rural | 86 | 36% |
| Urban | 154 | 64% |
| Education level | | |
| Primary studies | 12 | 5% |
| Gymnasium | 82 | 34% |
| High school | 101 | 42% |
| University | 45 | 19% |
| Marital status | | |
| Single | 34 | 14% |
| Married | 153 | 64% |
| Divorced | 14 | 6% |
| Widowed | 34 | 14% |
| Cohabitation | 4 | 2% |
| Hospitalization section | | |
| Vascular surgery | 30 | 13% |
| Neurology | 120 | 50% |
| Medical subunit I | 50 | 21% |
| Medical subunit II | 40 | 17% |

Between October 2021 and March 2022, 50% of the hospitalized patients occupied the beds in the Neurology department and only 17% accessed the medical services from the Medical subunit II, these being patients who needed care in the Rheumatology department.

*Table 2: Results in the researched fields according acording to patient gender*

| Variables | Gender | | |
|---|---|---|---|
| | Women | Men | p-value |
| Food quality and distribution | Good:49,3% Very Good: 47,8% Unsatisfactory : 2,9% | Good: 47,1% Very Good: 52,9% | 0.893 |
| Quality of accommodation conditions (lounge, bathroom, TV, refrigerator) | Good: 43,5% Very Good: 52,2% Unsatisfactory : 4,3% | Good:41,2% Very Good: 56,9% Unsatisfactory : 2% | 0.806 |
| Quality of medical care received | Good: 4,3% Very Good: 95,7% | Good: 5,9% Very Good: 94,1% | 0.223 |
| Accommodation rating | Good: 46,4% Very Good: 49,3% Unsatisfactory : 4,3% | Good: 41,1% Very Good:56,9% Unsatisfactory : 2% | 0.397 |
| Food rating | Good:50,7% Very Good: 44,9% Unsatisfactory : 4,3% | Good: 51% Very Good: 49% | 0.460 |
| Cleaning rating | Good: 44,9% Very Good: 55,1% | Good: 37,3% Very Good: 62,7% | 0.397 |
| Quality of bed sheets and effects | Good: 42% Very Good:58% | Good: 33,3% Very Good:64,7% | 0.797 |
| Quality of information received: rights and obligations | Good: 5,8% Very Good: 94,2% | Good: 2% Very Good:98% | 0.166 |
| Information on diagnosis, therapeutic indications and possible complications | Yes: 98,6% No: 1,4% | Yes: 98,9% No:1,1% | 0.846 |
| General impression at discharge | Satisfied: 31,9% Very satisfied: 68,1% | Satisfied: 37,3% Very satisfied: 62,7% | 0.013 |

According to the results of the analysis of the patient satisfaction questionnaires, it was found that female patients have lower satisfaction scores than men in terms of quality of accommodation and food, but they appreciate the information received from the attending physician and are more interested in discussions about diagnosis and therapeutic indications.

There is no noticeable difference in the quality of medical care provided by the salon doctor, nurses and nurses, both sexes being very satisfied with the care received, and the general impression on discharge obtained scores with insignificant differences between women and men.

Regarding the environment of residence, it is found that patients in urban areas are satisfied with the information received regarding the rights and obligations of the patient and their quality, showing a greater interest in doctor-patient communication.

Unsatisfactory results 2.3%-3.9% regarding the endowment of the salon and the conditions in the toilets were obtained from patients from both backgrounds.

Also, 3.9% of urban patients gave the same low, unsatisfactory scores in terms of food quality and distribution.

Statistically significant differences were found in the scores obtained on food quality, quality of accommodation and cleanliness, patients in urban areas being more demanding than those from rural areas. However, 93% of the latter were very satisfied with the quality of the medical care received, with a general impression on discharge.

The following results were highlighted according to the level of study: 13.6% of patients with higher education were less satisfied with the quality of the accommodation conditions (living room, bathroom, TV, refrigerator), the quality of the bed sheets and the quality food and administration, and patients with primary education tended to have higher satisfaction scores in all areas.

Patients with secondary school education showed their appreciation of the medical care provided, with the highest overall impression

*Table 3: Results obtained in the researched fields according to the living area:*

| Variables | Living area | | |
|---|---|---|---|
| | Rural | Urban | P-value |
| Food quality and distribution | Good:48,8%<br>Very good:51,2% | Good:48%<br>Very good:49,4%<br>Unsatisfying :2,6% | 0.776 |
| Quality of accommodation conditions (lounge, bathroom, TV, refrigerator) | Good:51,2%<br>Very good:46,5%<br>Unsatisfying :2,3% | Good:37,7%<br>Very good:58,4%<br>Unsatisfying :3,8% | 0.418 |
| Quality of medical care received | Good:7%<br>Very good:93% | Good:3,9%<br>Very good:96,1% | 0.004 |
| Accommodation rating | Good:51,2%<br>Very good:46,5%<br>Unsatisfying :2,3% | Good:40,3%<br>Very good:55,8%<br>Unsatisfying :3,9% | 0,074 |
| Food rating | Good:53,5%<br>Very good:46,5% | Good:49,4%<br>Very good:46,8%<br>Unsatisfying :3,9% | 0.539 |
| Cleaning rating | Good:44,2%<br>Very good:55,8% | Good:40,3%<br>Very good:59,7% | 0.406 |
| Quality of bed sheets and effects | Good:44,2%<br>Very good:55,8% | Good:35,1%<br>Very good:63,6% | 0.996 |
| Quality of information received: rights and obligations | Good:7%<br>Very good:93% | Good:2,6%<br>Very good:97,4% | 0.262 |
| Information on diagnosis, therapeutic indications and possible complications | Yes:97,7%<br>No:2,3% | Yes:99,4%<br>No:0,6% | 0.262 |
| General impression at discharge | Satisfied :41,9%<br>Very satisfied :58,1% | Satisfied : 29,9%<br>Very satisfied :70,1% | 0.012 |

*Table 4: Results obtained on patient satisfaction according to the education level*

| Variables | Education level | | | | |
|---|---|---|---|---|---|
| | Primary | Gymnasium | High school | University | P-value |
| Food quality and distribution | Good:50%<br>Very good:50% | Good:51,9%<br>Very good:48,1% | Good:40,5%<br>Very good:57,1%<br>Unsatisfying :2,4% | Good:54,5%<br>Very good:40,9%<br>Unsatisfying :4,6% | 0.671 |
| Quality of accommodation conditions (lounge, bathroom, TV, refrigerator) | Good:50%<br>Very good:50% | Good:40,4%<br>Very good:59,6% | Good:45,2%<br>Very good:52,4%<br>Unsatisfying :2,4% | Good:40,9%<br>Very good:45,5%<br>Unsatisfying :13,6% | 0.026 |
| Quality of medical care received | Very good:100% | Good:3,8%<br>Very good:96,2% | Good:7,1%<br>Very good:92,9% | Good:4,5%<br>Very good:95,5% | 0.005 |
| Accommodation rating | Good:50%<br>Very good:50% | Good:42,3%<br>Very good:57,7% | Good:45,2%<br>Very good:52,4%<br>Nesatisfăcător:2,4% | Good:45,5%<br>Very good:40,9%<br>Unsatisfying :13,6% | 0.330 |
| Food rating | Good:75%<br>Very good:25% | Good:51,9%<br>Very good:48,1% | Good:45,2%<br>Very good:50%<br>Unsatisfying :4,8% | Good:54,5%<br>Very good:40,9%<br>Unsatisfying :4,6% | 0.699 |
| Cleaning rating | Good:50%<br>Very good:50% | Good:34,6%<br>Very good:65,4% | Good:42,9%<br>Very good:57,1% | Good:54,5%<br>Very good:45,5% | 0.394 |
| Quality of bed sheets and effects | Good:50%<br>Very good:50% | Good:30,8%<br>Very good:69,2% | Good:42,9%<br>Very good:57,1% | Good:50%<br>Very good:50% | 0.798 |
| Quality of information received: rights and obligations | Very good:100% | Good:3,8%<br>Very good:96,2% | Good:2,4%<br>Very good:97,6% | Good:9,1%<br>Very good:90,9% | 0.734 |
| Information on diagnosis, therapeutic indications and possible complications | Yes:100% | Yes:97,6%<br>No:2,4% | Yes:100% | Yes:97,8%<br>No:2,2% | 0.600 |
| General impression at discharge | Satisfied:50%<br>Very satisfied:50% | Satisfied:28,8%<br>Very satisfied:71,2% | Satisfied:33,3%<br>Very satisfied:66,7% | Satisfied:45,5%<br>Very satisfied:54,5% | 0.229 |

score at discharge of 71.2%. According to the analyzed results, it is found that satisfaction tends to decrease the higher the patient's level of education, as their demands on the medical services received cover a wider range of variables.

## Conclusions

According to the results obtained it is found that socio-demographic variables influence the level of inpatient satisfaction. Thus, women tend to have a lower level of satisfaction than men, regarding the quality of accommodation and food and they pay more interest to communication with the attending physician. Both men and women had an overall satisfactory impression of the quality of care received at discharge.

There was also an increased level of satisfaction for rural patients in all areas, but lower scores for higher educated patients, who were less satisfied with the quality of accommodation, food and cleanliness.

Therefore, when conducting a patient satisfaction study, one must be aware of the effect of many variables on patient responses.

The results of the survey can form an essential basis for the successful development and improvement of the healthcare services provided by the healthcare facility.

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