

# Patient's Satisfaction and Quality of Hospital Care in Surgery Wards

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**Abstract:** The goal of this paper is to evaluate what factors – both subjective and objective – influence the satisfaction with hospitalization of patients undergoing laparoscopy as a method to cure cholelithiasis.

**Materials and Methods:** The research was conducted on six health care units in Poland. These units were divided into two groups: Group I: 3 hospitals with the number of beds above 400, and Group II: 3 hospitals with the number of beds below 400. The research included 180 patients: 30 from each hospital. The research was conducted using the SERVQUAL method and a questionnaire with questions relating to five areas characteristic of medical service: A) Material Area, B) Reliability Area, C) Reaction in Answer to Patients' Expectations, D) Competence, E) Empathy. The research results were analyzed statistically.

**Results:** The results indicate that the factors pertaining to the material area – especially those related to living conditions – and also those related to empathy, personnel's competences and their communication with patients have a very significant influence on patient's satisfaction with his/her stay at a hospital ward. Fulfilling patient's needs in functional quality area increases patient's comfort and, as a consequence, translates into satisfaction with the hospitalization. In both groups of hospitals, the surgical wards do not fulfill patient's expectations entirely and there is a need for improvement in this area. Despite that, however, patients perceived the wards with less than 400 beds as better.

**Key words:** Healthcare, Hospital, Patient, Cholecystectomy, Satisfaction, Quality Assessment, Surgery

## Introduction:

The issues, raised first by the European Union, largely contributed to actions which were undertaken later and which would result in improving the quality of health care service in medical units in Poland. Beside that, the significant structural changes in the social and economic systems in Poland have led to transformation and commercialization of many aspects of life, including the medical service sector. The changes affected not only structures, but also the patients' thinking mode, their way of perceiving a health care unit and the services it offers. Patients have become more demanding, they have started to behave like customers (clients) and expect the same quality of service as in the case of consumer goods. Such a situation is caused by the entry of medical services into the market of consumer goods, into the area of mutually competitive medical units. This new situation requires a medical organization to take into consideration patients' needs, to listen to them and to improve the quality of its services. Specifics of medical service – its professional and interpersonal aspects – are extremely important in health care and this is why the authors of this paper decided to evaluate what factors – both subjective and objective – influence the satisfaction with hospitalization of patients undergoing laparoscopy as a method to cure cholelithiasis.

Furthermore, the managers of health care units, focused on solving system problems, often forget

that organization's success lies in its image and how it is perceived, and also in the quality of services it provides, its identity, and the way it communicates with its patients. There is, therefore, a need for specific indication and appreciation of medical personnel as an important part of the organization, influencing the organization's image through the quality of services offered to a patient. The quality of medical service is the basis of a health care organization aiming at perfection. Orienting a hospital's goals at quality improvement is the basis of its functioning and requires the involvement of all hospital's employees. At the foundation of this philosophy lie everyday contacts between medical personnel and patients. To this way of thinking the work of managers of public hospitals ought to aspire; the aim being the ensurance of the quality of all the processes in an organization. How perfect a health care unit is depends on how patient sees it, and even more on the quality assessment, that is the quality of medical service and the level of attention patient experienced during his/her stay at a hospital.

## Materials and Methods:

Among the variety of methods described in the literature that are used for measuring the quality in a specific environment of medical institutions is the SERVQUAL method. It is used to evaluate the quality of medical service carried out in health care from the perspective of external customer (patient)

and the internal customer (employee). The method was developed by Parasurman, Zeithmal and Barry in the years 1983-1985 and consists of measuring the level of satisfaction which is the difference between patient's expectations and perceptions (the actual state) of medical services by patient [1,2,3,4,5,6]. The originality of this method is to show that the perceived quality of service is the result of comparison of service expected by patient with the service received. Thanks to this method we measure the differences that exist between the quality perceived by a patient and service expected by said patient. In other words, this method tests patient's expectations regarding the service level and the actual level of service present in a given hospital. It can also test the steps undertaken to improve the quality of health care service and their implementation in particular medical facility by comparing patient's expectations and patient's perceptions of the service provided by this medical facility. The value of the difference between the value desired by a patient in particular areas and the value perceived by said patient indicates the place where the organization should improve.

The research for this paper was conducted on six health care units in Kujavian-Pomeranian province in Poland. The units were divided into two groups: Group I: 3 hospitals with the number of beds above 400, and Group II: 3 hospitals with the number of beds below 400. The research included 180 patients: 30 from each hospital. The research was conducted using the Servqual method and a questionnaire with questions relating to five areas characteristic of medical service: A) Material Area, B) Reliability Area, C) Reaction in Answer to Patients' Expectations, D) Competence, E) Empathy. The research results were analyzed statistically. The authors used non-parametric statistical tests of Spearman, Kruskal-Wallis and Mann-Whitney U test.

### **Results:**

The result of this study indicate that the hospital wards with the number of beds below as well as above 400 should provide the service that would satisfy both subjective and objective factors influencing patient satisfaction. Hospitals should care for it in the interests of improving strictly clinical elements and also in the interest of

improving the level of medical services. This also applies to a hospital ward aesthetic value, such as visual attractiveness and better functionality of surgical wards, patients' rooms and informative value and visual appeal of promotional materials found on the ward. Conducted tests indicate that both groups of hospitals still need improvement in this area, although surgical wards with the number of beds below 400 (Group II) were assessed as much better in that respect.

Patients (the authors did all the research on patients undergoing laparoscopic cholecystectomy) also drew attention to the material area. Expectation of patients in this area were high in both groups of hospitals. In Group I the expectations in material area were substantially higher than the facts ( $p = 0.004$ ). Patients in Group II despite higher expectations, assessed the factual state as better than Group I ( $p = 0.005$ ). Both Groups differ significantly in assessing the material area, both in terms of expectations and evaluation of the facts ( $p = 0.007$ ). In the case of smaller hospitals (Group II), with fewer than 400 beds, the actual state was rated higher than in the case of bigger hospitals (Group I) (Figure 1). In both Groups the actual state of material area did not meet the patients' expectations fully. The difference in assessment between what a patient expects and what she/he finds as facts, varies depending on patient's level of education and place of residence. The level of dissatisfaction with the existing facts in relation to the expectations of the respondents (patients) was smaller in the group of patients with higher level of education than secondary school (Figure 2) and among patients who lived in the city than the patients living in rural areas (Figure 3). There is a significant correlation between the level of education and the assessment of the material area: living conditions ( $p = 0.003$ ), empathy ( $p = 0.005$ ) and personnel competence ( $p = 0.002$ ) (Figure 4). There is a similar significant correlation between place of living (city, countryside) and the assessment of material area ( $p = 0.003$ ).

As for the area of empathy, subjects in Group II had slightly higher expectations for empathy than the subjects in Group I, but the actual state of that area was evaluated as better in Group II. Despite that, there are visible differences between

expectations and facts. Analysis of the assessment of empathy area showed that patients treated in surgical wards of hospitals in both groups recognized the lack of adequate information about the Patient's Bill of Rights as a key negative factor. The expectations of respondents in this area in both groups exceeded the facts and have not been met. The patients felt unsatisfied, and information and communication expected from medical personnel were deemed as insufficient which had a definite impact on the overall assessment of the dimension of empathy.

Slightly higher expectation as far as the dimension of competence is concerned, presented subjects of Group II. Comparing between Group I and Group II, the latter's average value of expectations was 1.73 point higher than Group I. Group II also assessed as better the actual state of the competence area. In this case, the average value was higher compared to the patients of Group I by 1.11 points. In the case of Group I the facts surpassed their expectations, while in the case of Group II facts did not meet expectations.

Other analyzed dimensions were not significant, therefore they will not be discussed in detail.

The results of the research indicate that the factors pertaining to the material area – especially those related to living conditions – and also those related to empathy, personnel's competences and communication with patients (sharing with a patient the information about his/her state of health and engaging a patient in the healing process) have very significant influence on patient's satisfaction with his/her stay at a hospital ward. Fulfilling patient's needs in functional quality area increases patient's comfort and, as a consequence, translates into satisfaction with the hospitalization. In both groups of hospitals, the surgical wards do not fulfill patient's expectations entirely and there is a need for improvement in this area. Despite that, however, patients perceived the wards with less than 400 beds as better.

## **Discussion**

From the perspective of a patient treated in a surgical unit – in addition to solving his/her health problems by a qualified medical staff – the living

conditions, the appearance of rooms on the ward, the comfort of a patient room, its aesthetic appearance and how well it is equipped, also proved to be significant. Therefore, these are the factors that must be developed, subject to continuous evaluation and verification in order to promote quality processes. The research also showed that patients attach great importance to factors associated with response to their needs. They affect the overall assessment of quality of medical services and are the basis of recommendation of the facility by the patient to his/her circle of family, friends and acquaintances, and also significantly influence the decision whether a patient wants to go back to the same facility again when the need arises. Other authors who conducted similar research also came to similar conclusions [7,8,9,10,11,12].

Statistical analysis of the results of this research showed that in each of five dimensions of the analyzed medical service, in both groups of hospitals, the assessment of the facts and expectations of patients in terms of satisfaction with the surgical procedure and care received during the stay at a hospital ward was highly impacted by a patient's level of education. Patients with higher level of education who were hospitalized in both groups of hospitals had lower expectations in each of the analyzed dimensions of quality in medical service. The reason for this probably stems from the fact that this group is more aware of the necessity of surgery, has a greater awareness of the necessity of the fight against the disease and considers a treatment primarily in terms of improving health and restoring normal bodily functions. Because of this, these people often show their satisfaction with treatment in the surgical ward. A similar position on this issue is presented by other authors, who argue that patient's satisfaction with treatment is dependent on patient's individual characteristics such as age, sex, education and the state of physical and mental health [13,14,15,16,17,18]. The authors of this paper, however, did not find connections between either age or gender of the patients and their satisfaction with treatment.

This research shows that patients in small hospitals (below 400 beds), i.e. Group II, were more satisfied with their process of hospitalization. The obtained

results confirm the global trends. Patients residing in smaller wards, smaller hospitals, often declare a higher level of satisfaction with the quality of medical service provided than the patients of large medical centers [8,19,18]. A patient in assessing the overall quality of medical service, pays attention to all aspects of the service, including the organizational and aesthetic value which she/he was able to observe during a stay in a health care institution. The general impression appeared to be extremely important for patients. The study confirmed that the overall impression of the hospital in conjunction with a patient's emotional reaction, influence his/her satisfaction with the stay and treatment in a health care facility. Similar relationships between the perception of service and overall satisfaction of a patient were reported by other researchers. The results of their work reveals that the overall impression received by a patient as well as personnel's empathy and response to patient's expectations are as important as strictly medical side of medical service [7,19,20,21,22,23,24]. The results of this paper also indicate that the expression of empathy, competence of the medical staff, how they communicate with patients and share the information about the disease, treatment and patient's involvement in the healing process are the factors that may impact patient's satisfaction with treatment in surgical ward. A similar position on this issue is presented by other researchers who found that the more medical staff is willing to express empathy, the better the patients assess their competence and, consequently, patients are more satisfied with their stay in a hospital and the course of treatment [25]. Meeting the emotional needs of patients is therefore an important area of medical care that should be provided to patients treated surgically. Patient's satisfaction with hospital treatment, including surgery, is combined with interpersonal relationships (doctor-patient, nurse-

patient), proper communication, information on diagnosis and pharmacological treatment. It has a strong and positive impact on the patient's overall experience of treatment and hospital stay.

We can see that the technical quality of medical service is closely correlated with patient's perception of interpersonal elements of health care. Thus, the involvement of patients in the therapeutic process has a positive effect on their satisfaction with their hospital stay. Well-managed hospitals, constantly wanting to improve his image, must pay attention to the quality of service, efficiency of operations and the maximization of the efforts to secure full satisfaction of the patient. Such actions are the way to a positive image of the hospital in the eyes of patients. At the same time they also guarantee the loyalty of a patient who should be treated by the medical community as a partner. Health care units should seek that sort of relationship with patients in order to support their position on health care market, especially in the times of growing competition.

### Conclusion

Concluding this article, we can say that neither of the analyzed hospital groups fulfilled all of patients' expectations, but the surgical wards with less than 400 beds were assessed as significantly better. The deciding factors influencing patients' satisfaction with their stay at a hospital were, in both groups, the factors pertaining to the material area. Following were: empathy, personnel's competences, personnel's reaction to a patient's needs and proper information about the illness and the course of treatment. The main reason for the negative feelings of patients staying at surgical wards seemed to be worse than expected living conditions, sporadic contact with doctors and lack of information about patient's rights.

Figure 1. Distribution of mean ratings of material area/ living conditions

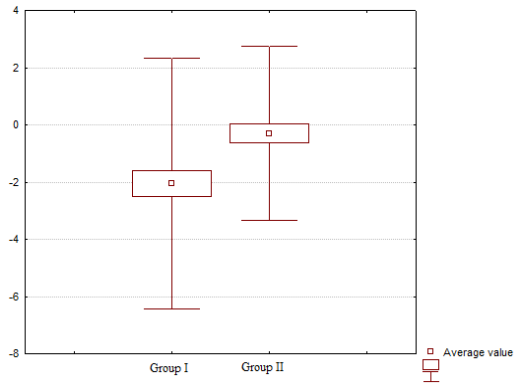


Figure 3 Distribution of average dimension of the evaluation of the material – the facts, in groups of place of living.

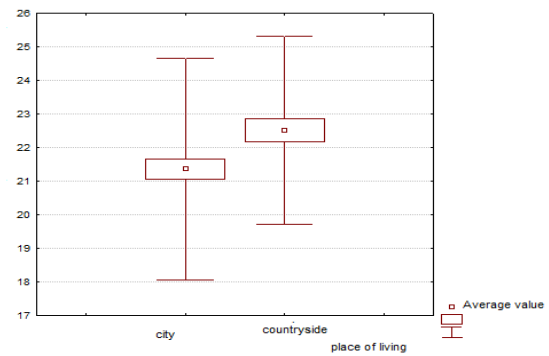


Figure 2. Distribution of average dimension of the evaluation of the material – the facts, in groups of education.

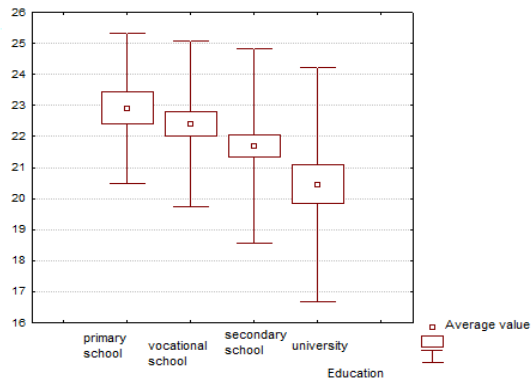


Figure 4. Significant influence of education on the analyzed aspects (dimensions).

	N	R	t (N-2)	P
Material area/ living conditions facts	180	-0,2218	-3,0342	0,003
Personnel's competences expectation	180	-0,2283	-3,1280	0,002
Empathy expectations	180	-0,2067	-2,8181	0,005

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