

Evaluation of Patient Satisfaction

Ioana GĂDĂLEAN^{1,2,*}, Marilena CHEPTEA¹, Ioana CONSTANTIN¹

¹ The Oncology Institute “Prof. Dr. I. Chiricuță” Institute of Oncology, 34-36 Republicii, 400015 Cluj-Napoca, Cluj, Romania.

² “Iuliu Hațieganu” University of Medicine and Pharmacy Cluj-Napoca, 13 Emil Isac, 400023 Cluj-Napoca, Cluj, Romania.

E-mail(*): Cristina.Gadalean@umfcluj.ro

* Author to whom correspondence should be addressed; Tel.: +40745-635406; Fax: +4-0264-450670

Received: 8 December 2011 / Accepted: 21 December 2011 / Published online: 23 December 2011

Abstract

Introduction: Patient satisfaction is an element of psychological health which influence the results of the medical care and their impact. Patient experience can be quantified from their questioning or direct observation. *Objectives:* The purpose of this paper is to analyze and evaluate the satisfaction of nursing activities closely related to the patients admitted in ICU ward Institute of Oncology Prof. Dr. Ion Chiricuță Cluj-Napoca. *Materials and Methods:* This paper describes a prospective study conducted on a sample of 106 patients hospitalized in the intensive care unit of the Institute of Oncology Prof. Dr. Ion Chiricuță Cluj-Napoca in June 2011 - August 2011. The results were obtained using descriptive and analytical statistical technique of SPSS software. To detect relationships / associations between qualitative variables the Chi-Square test was used (statistically significant association if $p \leq 0.05$). Patients received an anonymous questionnaire applied at 24 hours after discharge from the IT department so that the responses would be most sincerely. *Results:* Patients selected only two degrees of satisfaction, 53.8% *very satisfied*, respectively 46.2% *satisfied*. Dissatisfaction factors that may affect satisfaction were communication, accommodation facilities, factors arising from the lack of personal, pain and lack of sleep. *Conclusions:* Satisfaction “score” is influenced by education level and diagnosis. Resumption of the questionnaire is required periodically to assess the results of our section. It is also necessary to continue to compare results with other departments in the country.

Keywords: Quality; Satisfaction; Nursing; Patient.

Introduction

Quality of medical care has the following components: professional quality, patient satisfaction and total quality management [1]. The first results published in the complex area of quality of medical care were Donabedian, but he indicated the existence of only two components: technical and interpersonal [2].

Technical quality of personal of medical care is usually reported in the technical competence, compliance with clinical protocols and practice guidelines, the use of infection control measures, information and counseling, health services integration, management efficiency. Its existence leads to an effective and efficient working environment, positive results of treatment, followed by patient satisfaction and, last but not least, the satisfaction of the medical caregiver.

Interpersonal quality is the part perceived by the patient / client. Typically, patients have no ability or knowledge needed to assess the technical competence of the care giver or the way in which they used infection control measures, but they do know how they feel, how they were treated and whether the needs, expectations have been met . They often report the ability to ask questions, and can appreciate a medical service as convenient or not [3].

The existence of this dimension of quality leads to: the patient's positive behaviors (acceptance of recommendations, increased compliance to treatment, continuity of treatment, decreased rate of treatment abandonment, etc.), positive image of the care service and, most importantly, client / patient satisfaction. Sometimes, the client expects from the physician more than it can give. Sometimes, the client has a rigid point of view and tends to resist what he considered interference in personal matters. Therefore, patients' perception of health is a consequence rather than an attribute of health care.

Seen by specialists, patient satisfaction is an element of psychological health which influence the results and their impact [4]. A satisfied patient tends to cooperate with the doctor easier and to accept its recommendations.

Patient satisfaction affects access to medical services - a satisfied client will return to that doctor or to the health unit concerned. But we can expect that patient satisfaction evaluation results to differ from those of professional evaluation. This is because the patient focuses especially on interpersonal relations which he /she perceives and can easily assess, although they are subjective, as opposed to technical or professional aspects that are more difficult to evaluate [5].

Patient experience can be quantified from their questioning or direct observation. Often the results depend on geographical region, cultural aspects.

Patient satisfaction degree is related to quality of care, but derives from the conditions in which medical care givers work, and the satisfaction existence increase performances [6]. In conclusion, this is a causal factor of health care quality level, so it can be used as a criterion for assessing their quality [7].

Aspects of patient satisfaction that should be considered: medical care and information, food and accommodation facilities, environment, nursing activities, amount of food, visiting schedule [8].

An intensive care unit was elected for conducting an evaluation study of patient satisfaction for two reasons. First, in terms of patient and family is the largest division impact for them. And in terms of health care is the section where a large number of maneuvers are performed, invasive or not, and emotional burden is high.

Aims

The purpose of this paper is to analyze and evaluate the satisfaction of nursing activities closely related to the patients admitted in ICU ward Institute of Oncology Prof. Dr. Ion Chiricuță Cluj-Napoca.

Material and Method

This paper describes a prospective study conducted on a sample of 106 patients hospitalized in the intensive care unit of the National Cancer Institute "Ion Chiricuță" Cluj-Napoca in June 2011 - August 2011. The results were statistically analyzed using descriptive and analytical statistical software SPSS. To detect relationships / associations between qualitative variables we used chi-square test (positive association if $p \leq 0.05$).

Were included in the study:

- patient hospitalized at least 24 hours in IT;
- conscious patient who can communicate fluently.

We did not included in the study:

- patients who cannot communicate;
- patients admitted less than 24 hours in IT.

Patients received an anonymous questionnaire 24 hours after discharged ICU, so that given responses were of real honesty. The questionnaire was handed to the Department of Surgery patients, having enough time to answer, then in a sealed envelope the questionnaire was delivered to the nurse ward. So there would be no doubt that the questionnaire is anonymous.

The questionnaire includes demographic data: sex, age, educational level, diagnosis, number of days spend in intensive care unit, score of satisfaction. It also consists of two groups of questions: 10 related to satisfaction and dissatisfaction and 30 which underline dissatisfaction from which the patients were asked to choose five, and 10 of the most important. To establish satisfaction Lickert type scale was used with five category as follows: very satisfied, satisfied, slightly satisfied, dissatisfied, very dissatisfied [9].

Department of Oncology ATI "Ion Chiricuța" Cluj-Napoca serves the OR with 8 operating rooms and also receives medical emergencies in other sections of the Institute: Hematology, Medical Oncology, Radiotherapy. In the intensive care unit there are 20 beds out of which the organization provides six beds for intensive care cases and 14 for follow-up surgery. The staff includes seven doctors, 18 Registered Nurses, eight Licensed Practical Nurse and three genitors. The 20 patients in the ward T.I. are followed by two RN per shift. In the morning shift, during the surgery time the 2 nurses also follow patients in the Chamber of Awakening.

Results

The Results Recorded on Demographics

After analyzing information, we grouped patients in board primary diagnosis groups. 37.7% were hospitalized for ovarian neo, 27.4% had colon diseases, while 14.1% of them were medical therapy cases (lymphoma, leukemia).

Average age is 54 ± 12 with 95% CI: 52.18-57.05, male female ratio: 0.65 and a duration of hospitalization in IT (days) is 5.53 ± 3 with 95% CI: 4.96-6.09 and a "satisfaction score": satisfied and very satisfied.

Secondary education dominated at the interviewed patients (44.3%), followed by higher education (34%) (Table 2), and the female sex was predominant.

Table 1. The education of patients studied

	No. patients (%)
primary	23 (21.7%)
general	47 (44.3%)
superior	36 (34%)

In patients who chose satisfaction 4 (satisfied) the average number of days of hospitalization in ICU is 5.33 ± 3.356 with 95% CI: 4.44 to 6.22 and those who choose grade 5 (very satisfied) the average number of days of hospitalization is 5.76 ± 2.376 with 95% CI: 5.07 to 6.44.

The Satisfaction Results

Of the 106 patients studied, all have only two degrees of satisfaction very satisfied/satisfied. Satisfaction score distribution is shown in Table 3.

Table 2. "Satisfaction Score"

	No. patients (%)
Satisfied	57 (53.8%)
Very satisfied	49 (46.2%)

The average age of respondents satisfied was, 51.60 ± 11.210 with 95% CI: 48.62 to 54.57 and those who responded was very satisfied was $58.12 \pm 13, 410$ with 95% CI: 54.27 to 61.97.

Applying the test chi-square test for targeted analysis of the determinants of “satisfaction score” in satisfaction and dissatisfaction factors association.

Top 10 of the satisfaction factors from the studied group is shown in Table 3 the most common being "I was properly cared for." Statistical significance have the following factors: "I was treated with compassion / humanized" (p=0.002) and "I have satisfied all requests promptly" (p=0.001).

Table 3. Factors of satisfaction (106 patients)

		Person Chi-Square “p” “Satisfaction score”
1	I was properly treated/cared for	0.155
2	I was treated with compassion/ I was human treated	0.002
3	I procedure/treatment was clearly explained	0.173
4	I had no pain	0.988
5	I was shown a proper concern	0.444
6	I had enough contact with my family	0.579
7	All my requested were promptly resolved	0.001
8	I properly rested	0.799
9	I had enough food/of proper quality	0.136
10	I was properly addressed	0.798

Table 4 shows dissatisfaction factors selected by patients participating in the study.

Table 4. Factors of dissatisfaction (106 patients)

		Pearson Chi-Square “p” “Satisfaction score”
1	I was not informed about my admission in Intensive Care department	54.7
2	I was restricted by tubes / infusions	52.8
3	Medical staff is not present	31.1
4	I was often thirsty	14.2
5	My Noninvasive Blood Pressure was too often measured	14.2
6	I felt that nurses watched mostly the devices (not me)	9.4
7	I often/permanently heard devices sound/alarms	38.7
8	Nurses / nurses and doctors had too much talking	34.9
9	My submitted procedures/treatment/maneuvers were not clearly explained	35.8
10	I had nose and mouth tubes	18.9
11	I was disoriented /confused	9.4
12	I was admitted in mixed wards	48.1
13	I met family and friends for a too short time	47.2
14	I did not know the timing of specific procedures	11.3
14	Nurses and/or doctors often disturbed my sleeping time	22.6
15	I could not sleep	24.5
16	I was aware of surrounded smells	19.8
17	Too much light (almost permanently)	18.9
18	I had pain	21.7
19	Medical staff uses incomprehensible worlds	42.5
20	I was regarded as an object	11.3
21	I had no privacy	50.9
22	I was cared for by unknown nurses / doctors	0
23	the room temperature was improper (too hot/too cold)	3.8
24	I often heard people talking about me/my diseases	3.8
25	I could not communicate	15.1
26	I was afraid of death	24.5
27	I was afraid of transmittable diseases	18.9
28	I was often disturbed by other patient reactions	46.2
29	My treatment consent was not asked	3.8

Analysis of an association between satisfaction score and diagnosis, level of education and number of days spent in ICU, may be an element of interest and is described in Table 5.

Table 5. The association between satisfaction score and demographic data

	Pearson Chi-Square “p” Satisfaction score
Diagnosis	0.040
Level of education	0.001

Discussion

The predominant gender is female (60.4%) which is related to diagnosis predominantly ovarian neoplasm, treated in Cancer Institute.

From the patients’ point of view, factors influencing the growth of satisfaction are of emotional attitudes. Mainly, all their request promptly resolved means high degree of satisfaction. Most patients (92%) felt that they were properly cared for. Lack of pain was reported by 49.1% of patients.

Factors of dissatisfaction with the highest rate in the studied group were "not know how long to stay at ICU" and "You are restricted by tubes and infusion" but statistical analysis were interpreted as being without statistical significance.

In statistical analysis, we find that many dissatisfaction factors can affect satisfaction of patients. Some of them are tied to, accommodation facilities and the ward profile that: "Mixed rooms" (p=0.000), "You always have lights" (p=0.009), "You do not have privacy" (p=0.002), "in the room you are too hot / too cold" (p=0.028).

Lack of department staff in ICU is significant for the following factors that lead to dissatisfaction: "The medical staff is not present" (p=0.027), "You feel that nurses pursue more devices than you" (p=0.002), "Do not explain to you treatments and maneuvers that you do" (p=0.000), "You are regarded as an object" (p=0.001).

Noise from equipment in the sector (p=0.000) is a consequence of both the, accommodation facilities and lack of staff. The profile of ICU implies the existence of multiple monitors, injector, mechanical ventilation devices, but a number of nurses closer to the personnel standards would remedy this problem. As expected, pain (p=0.000) is one of the factors influencing patient satisfaction. So lack of sleep (p=0.000), which also derives from the association of other factors, has a negative impact on satisfaction.

Compared with the study by Ionescu and collaborators [10] where pain was reported main source of discomfort and insomnia on the second place, in our study the share was not as large a share, probably due to the introduction in section the analgesia protocols and sedation. In both studies staff’s care is first among the factors of satisfaction.

Also analgesia and sedation protocols should be updated periodically and department staff should be trained on them. One of the conclusions of Ionescu and collaborators study was the need to introduce these protocols, for which pain and insomnia in our study have passed the bottom of the top makers of dissatisfaction.

In 2010, another intensive care unit in Cluj-Napoca was undertaken a similar study by Pop and collaborators. A comparison between the two studies show that most factors of satisfaction are the same, except that in our study are most frequently mentioned factors related to the architecture department discomfort (mixed wards, do not have privacy).

In connection with the fear of diseases, it is natural given the fact that ICU are known as having the largest number of nosocomial infections [11,12]. They are closely related to the large number of invasive maneuvers practiced in these units [13].

Other studies in the world underlines the problems of communication in ICU, which directly influence satisfaction score [14,15].

As many others in Romania and worldwide, this study highlights the importance of communications. For this to be recognize as a main factor in patients treatment, it would require

continuing medical education courses, with nurses and doctors participation. Certainly, medical activity is essential but, without adequate communication, satisfaction score will decrease, a fact is obviously, not desirable. Any clinical department has to implement measures that are able to increase patients score of satisfaction. Even if the number of medical staff's members is lower than actual normative specify, each of them has to allocate a quantum of time for obtaining data about patients' needs. Thus, all medical acts will ensure a proper communication with all of them, as a clear part of satisfaction [16].

Communication is, also, able to reduce negative impact of accommodation facilities and ICU conditions on patients. They must be announced, before being ICU admitted, about the mixed wards and sustained activity during day and night. When the circumstances allow, isolating critical patients must be considered.

To correct factors related to the number of members and the quality of medical staff in our department, the results should be primarily presented to the members of ICU and they have to discuss all negative aspects observed during medical procedures [17,18].

Conclusions

Satisfaction score is influenced by education level and diagnosis.

To maintain and grow high satisfaction score observed in our study, the satisfaction factors that were statistically significant ("I was treated with compassion/ I was human treated" and "All my requested were promptly resolved") have to become a permanence in medical staff - patients relationships.

The importance of periodically resumption of questionnaires is obvious in assessing good results in our department. It is also necessary to continue to compare our results with those from other departments in the country.

Link the conclusions with the goals of the study, but avoid unqualified statements and conclusions not adequately supported by the data.

Conflict of Interest

The authors declare that they have no conflict of interest.

References

1. Oprean C. Managementul calității. Editura Universității Lucian Blaga din Sibiu, Sibiu, 2004.
2. Donabedian A. Explorations in Quality Assessment and Monitoring: The Definition of Quality and Approaches to Its Assessment. Ann Arbor, Mich:Health Administration Press. 1980.
3. Ransom SB, Joshi MS, Nash DB. The Healthcare Quality Book. Vision, Strategy and Tools. Health Administration Press, Chicago, Illinois, AUPHA Press, Washington, D.C., 2005.
4. Schubert M, Glass TR, Clarke SP, Schaffert-Witvliet B, De Geest S. Validation of the Basel Extent of Rationing of Nursing Care instrument. *Nurs Res* 2007;56:416-24.
5. Țițu M, Oprean C. Managementul calității. Curs universitar. Editura Universității din Pitești, Pitești, 2007.
6. Badger F, Werrett J. Room for improvement? Reporting response rates and recruitment in nursing research in the past decade. *Journal of Advanced Nursing* 2005;51(5):502-10.
7. Școala Națională de Sănătate Publică și Management Sanitar. Managementul Spitalului. Editura Public H Press, București, 2006.
8. Buerhaus PI, Donelan K, Ulrich BT, Norman L, Williams M, Dittus R. Hospital RNs' and CNOs' perception of the impact of the nursing shortage on the quality of care. *Nursing Economic* 2005;23(5):214-221.

9. Scara Likert [online] [cited 2011 August] Available from: URL: <http://www.businessdictionary.com/definition/Likert-scale.html>
10. Ionescu D, Vele L, Miclea D, Arieșan D., Este utilă evaluarea satisfacției pacienților din Unitatea de Terapie Intensivă? Jurnalul Român de Anestezie Terapie Intensivă 2004;11(2):99-102.
11. Lo E, Nicolle L, Classen D, Arias KM, Podgorny K, Anderson DJ, et al. Strategies to prevent catheter-associated urinary tract infections in acute care hospitals. *Infect Control Hosp Epidemiol* 2008;29:S41-S50.
12. Aiken LH, Clarke SP, Sloane DM, Lake ET, Cheney T. Effects of hospital care environments on patient mortality and nurse outcomes. *Journal of Nursing Administration* 2008;38(5):223-9.
13. Gyurov E, Milanov M, Neichev P. Nosocomial infection: main cause in development of septic complications during postoperative period. *Critical Care* 2002;6(suppl1):98.
14. Karam CH, Novaes MAFP, Andreoli PBA, Knobel E. Patients'and their relatives' satisfaction in an intensive care unit. *Critical Care* 2001;(supp3):76.
15. Jansen AC, Van der Beld M, Gondrioan M, Middelkoop HA, Arbous MS. Patient satisfaction in the ICU level of satisfaction and influencing factor. *Critical Care* 2009;13(suppl1):487.
16. Lang TA, Hodge M, Olson V, Romano PS, Kravitz RL. Nurse-patient ratios: a systematic review on the effects of nurse staffing on patient, nurse employee, and hospital outcomes. *J Nurs Adm* 2004;34:326-37.
17. Auerbach DI, Buerhaus PI, Staiger DO. Better late than never: Workforce supply implications of later entry into nursing. *Health Affairs* 2007;26(1):178-85.
18. Flanagan N. Testing the relationship between job stress and satisfaction in correctional nurses. *Nursing Research* 2006;55(5):316-27.