

## Evaluation of Patient Satisfaction with Nursing Care

Jarmila Winklerová, Darja Jarošová

Department of Nursing and Midwifery, Faculty of Medicine, University of Ostrava

### ABSTRACT

**Aims:** The aim of this study was to determine patient satisfaction with nursing care provided in selected wards of two hospitals of Moravian-Silesian region, to determine whether there is a connection between demographic and clinical characteristics of patients and their satisfaction and to compare patient satisfaction according to health facility and department, where they were hospitalized.

**Methods:** The sample of descriptive correlation study consisted of 507 patients hospitalized in the period from February to March 2011 on 13 inpatient wards in hospitals Karvina-Raj and Orlova. Data were collected using a standardized questionnaire Patient Satisfaction Scale (PSS), which measures patient satisfaction in eleven items of three areas – technical/rational aspects, provision of information and area of interaction and support.

**Results:** Patients were most satisfied with the technical aspects of nursing care and least with provision of information. Demographic characteristics of the patients did not have a major impact on their satisfaction. Only in one hospital (NsP Karvina) were men in all factors happier than women and on the contrary the smallest satisfaction reported patients who described their health status as satisfactory. In NsP Orlová they reported higher satisfaction with the support and interaction patients hospitalized longer period of time.

**Conclusion:** The results of the study did not show statistically significant differences in evaluation of patient satisfaction between hospitals or between departments surveyed.

### KEY WORDS

nursing care, hospital, patient, satisfaction, PSS questionnaire

### INTRODUCTION

Patient satisfaction with nursing care is one of the important indicators of quality of nursing care provided in all health facilities. The results of research in this area are getting more and more attention from laic and professional public. Patient satisfaction increases the prestige and competitiveness of the facility and satisfaction survey results and then provide feedback about what is the difference between the expectations of the patient and the nursing care provided. (Dozier et al. 2001; Gladkij 2003, p. 191) There are no explicit criteria of quality of nursing care, because it often varies according to by whom the care is evaluated (nurse, doctor, care payer, patient). (Farkašová et al. 2006; Madar et al. 2004) Health care quality assessment usually has two dimensions: objective, which represents monitoring of certain measurable evaluation criteria or performance of medical facility and subjective concerning only personal satisfaction of the patient. (Exner et al. 2005; Madar et al. 2004) The level of satisfaction is generally the result of comparison of expectations of the evalua-

tor and his perception of reality. (Exner et al. 2005) The patient usually assesses the quality of nursing care with regard to satisfying his needs and expectations. (Mastiliaková 2002; Farkašová 2006)

Patients usually do not have enough information to enable them to adequately evaluate all aspects of health care (eg. medical, technical), but they can assess whether nursing staff listens to them, whether they are given sufficient attention, if they are, to the extent needed, informed, educated and respected at the same time, which is closely connected with the ethics of the nursing profession.

### OBJECTIVE

The aim of the study was to assess patient satisfaction with nursing care in selected inpatient wards of two hospitals. To compare patient satisfaction according to a medical facility and the department in which they were hospitalized. To determine whether demographic and clinical factors influence patients' satisfaction with nursing care.

## SUBJECTS AND METHODS

The research sample consisted of 507 patients hospitalized at 13 wards of two hospitals, which are part of the Polyclinic Hospital in Karviná-Ráj. Input criteria were age over 19 years, hospitalization of at least 48 hours and agreement with completing and submitting the questionnaire. Questionnaires were distributed to all patients ( $n = 703$ ), who were at the time of data collection hospitalized in monitored wards. The return of the questionnaires was 72% ( $n = 515$ ), eight questionnaires were excluded due to incomplete information. The final set amounted to 507 patients, namely 323 women (64%) and 184 men (36%). The average age of respondents was 56.5 years ( $SD = 16.1$ ) with an age range of 19-96 years. The largest group of patients were those with secondary (54%), education. The distribution of respondents in the set, according to planned or acute admission to hospital, was equal. Most of them had previous experience with hospitalization (82%), 38% of patients passed operative intervention. The period of hospitalization ranged from two to ninety days (average 11 days). Patients rated their subjective state of health as very good or good (49%) or satisfactory (38%).

Data were collected using a standardized questionnaire Patient Satisfaction Scale (PSS), whose original version was created by S. Kim (1991). Last Finnish modified version was evaluated as a valid and reliable tool with good psychometric parameters designed to evaluate patient satisfaction with nursing care. (Suhonen et al. 2007) In the Czech Republic this questionnaire was used for the first time within an international comparative study of satisfaction measurements of surgical patients in four hospitals Moravian-Silesian region. (Jarošová et al. 2011) The questionnaire contains 11 items with multiple choice questions on a Likert scale (1 – very

dissatisfied, 2 – dissatisfied, 3 – satisfied, 4 – very satisfied) and individual items are grouped into three factors according to the areas concerned: technical / rational aspects, providing information and the area of interaction and support.

Data were collected simultaneously in all 13 monitored hospital departments in Karviná-Ráj (internal medicine, surgery, gynecology, obstetric, pulmonary, ENT, ophthalmology) and hospital in Orlová (internal medicine, surgery, neurological, orthopedic, rehabilitation and palliative care) in the period from 1 February 2011 to 10 March 2011. Patients receiving questionnaires before leaving the hospital and threw them completed into survey boxes located on each ward.

Data from the completed questionnaires were coded and tabulated in MS Excel. Data were analyzed by statistical program STATA v. 10. Using descriptive statistics (absolute frequency, relative frequency, average) demographics, items and scales were processed. Non-parametric statistical hypothesis test Wilcoxon rank-sum (Mann-Whitney) was used to determine relationships between the studied items and demographic and clinical characteristics of patients and Kruskal-Wallis one-way analysis of variance for comparing three or more groups. Statistical tests were evaluated at the level of statistical significance  $\alpha = 0.05$ .

## RESULTS

Patients rated each item of the questionnaire with average score between 3.51 to 3.68 (Table 1). At least they were satisfied with „The way nurses prepared my family for my release from the hospital“ (average = 3.51;  $SD = 0.64$ ) and, the most satisfied with „The way to the nursing staff treated me when I was sick“ (average = 3.68;  $SD = 0.61$ ) and „with the professionalism of nursing staff“ (average = 3.67;  $SD = 0.60$ ).

**Table 1** Evaluation of patient satisfaction – average values

Satisfaction:	PH Karviná		PH Orlová		File	
	mean	SD	mean	SD	mean	SD
with the level of care (quality) in this hospital	3.57	0.59	3.56	0.63	3.55	0.61
with the degree of care (ample) that I was provided	3.61	0.57	3.59	0.65	3.59	0.61
with the professionalism of the nursing staff	3.69	0.56	3.65	0.65	3.67	0.60
with information that I was provided in the hospital	3.55	0.61	3.54	0.65	3.55	0.63
the way the nursing staff approached me and treated me	3.70	0.57	3.67	0.64	3.68	0.61
with time (hours), which the nursing staff devoted to me	3.55	0.59	3.56	0.68	3.55	0.63
with the way nursing staff explained things to me	3.59	0.57	3.54	0.65	3.57	0.61
with the options of care that I was offered	3.57	0.58	3.53	0.71	3.55	0.64
the way nursing staff prepare me for a hospital stay	3.57	0.60	3.55	0.64	3.56	0.62
the way nursing staff prepared me for release	3.57	0.61	3.58	0.63	3.57	0.62
the way nursing staff prepared my family for my release	3.49	0.62	3.53	0.66	3.51	0.64

*SD – standard deviation, mean – average scores*

**Table 2** Satisfaction mean score factors of the questionnaire

Factors (items of the questionnaire)	PH Karviná			PH Orlová			Set		
	number	mean	SD	number	mean	SD	number	mean	SD
F1 technical / rational (3, 5, 6)	255	3.65	0.51	252	3.63	0.61	507	3.64	0.56
F2 information (4, 7, 9, 10, 11)	254	3.55	0.52	252	3.54	0.59	506	3.55	0.56
F3 interaction and support (1, 2, 8)	255	3.58	0.52	252	3.56	0.61	507	3.57	0.57
PSS (all items)	255	3.59	0.50	252	3.57	0.58	507	3.58	0.54

SD – standard deviation, mean – average scores

**Table 3** Demographic and clinical variables and patient satisfaction with nursing care

	PH Karviná				PH Orlová			
	PSS	F1	F2	F3	PSS	F1	F2	F3
Variables	p	p	p	p	p	p	p	p
Gender	0.0354	0.0345	0.0472	0.0455	0.558	0.5331	0.9241	0.4014
Age	0.4445	0.412	0.485	0.6944	0.5417	0.5925	0.6785	0.5062
Education	0.4492	0.7477	0.421	0.2166	0.8881	0.6763	0.7739	0.8323
Length of hospital stay	0.2145	0.2388	0.2121	0.4696	0.5417	0.0648	0.2221	0.0114
Operation	0.5118	0.6079	0.1765	0.673	0.8388	0.7503	0.5459	0.8963
Previous experience	0.7274	0.9171	0.6423	0.9478	0.7676	0.9506	0.7768	0.7712
Reason for admission	0.4849	0.27	0.5565	0.941	0.7897	0.403	0.9878	0.7037
Health status	0.0057	0.0074	0.0266	0.0116	0.9983	0.8444	0.9461	0.8516

p – statistical significance of Mann-Whitney test ( $\alpha = 0.05$ ), F1 – technical / rational, F2 – information, F3 – interaction and support

Comparison of satisfaction according to three regions / factors showed that the patients were most satisfied with the technical aspects of care (diameter = 3.64; SD = 0.56), less satisfied in interaction and support (diameter = 3.57; SD = 0.56) and the least satisfied with the provision of information during hospitalization (diameter = 3.55; SD = 0.56). Factors of satisfaction and individual items of the questionnaire were evaluated by patients in the two compared hospitals in the same order (Table 2).

The aforementioned statistical tests compared relations between demographic (gender, age, education) and clinical (duration of hospitalization, surgery, previous experience with hospitalization, reason for admission and subjective health status) characteristics of patients with three factors of the questionnaire and a total average score.

Significant differences in expressed satisfaction with nursing care were found only for three demographic characteristics of hospitalized patients (Table 3). Gender – in Karviná hospital men were generally happier than women ( $pF1 = 0.0345$ ;  $pF2 = 0.0472$ ;  $pF3 = 0.0455$ ;  $pPSS = 0.0354$ ). State of health – patients who defined their health status as satisfactory, were in all factors (PSS, F1, F2, F3) less satisfied than patients, that rated their health status as good or bad ( $pF1 = 0.0074$ ;  $pF2 = 0.0226$ ;  $pF3 = 0.0116$ ;  $pPSS = 0.0057$ ). The hospital in Orlo-

vá, a statistically significant difference was detected in only one factor (area of interaction and support) depending on the length of hospitalization, when patients with stay in hospital longer than a week reported higher satisfaction ( $pF3 = 0.0114$ ).

## DISCUSSION

To assess patients' satisfaction with nursing care there was taken a methodology, including measuring instrument PSS (Patient Satisfaction Scale), the research carried out in 2009 on surgical wards of four hospitals in Moravian-Silesian Region, which was part of an international comparative study coordinated by the Technical University of Cyprus. (Jarošová et al. 2011)

Our results match the results of the study mentioned above, where patients were also most satisfied with the technical aspects of nursing care and at least with providing information related with hospitalizations, especially the preparation of themselves and their families at hospital discharge. Also, the authors of the Finnish study (Suhonen et al. 2007) indicate that lack of awareness among patients is usually the most frequent cause of discontent. Like researchers abroad (Dozier et al. 2001) we also recorded a higher incidence of missing answers (12%) to the question, related to the provision of advice and information to the patient's family. Probably because this item is

irrelevant for a group of autonomous and self-sufficient or self-surviving patients („single“) – it is not necessary provide advice to their family. Unlike published researches (Jarošová et al. 2011, Suhonen et al. 2012, Johansson et al. 2002) in our study there was not confirmed a clear link between demographic factors of patients and their expressed satisfaction with nursing care. The hospital in Karviná thus was shown only the effect of gender and health status, when men were more satisfied, and patients evaluating their health as good or bad, on the contrary. Even some foreign researches confirmed greater satisfaction for men (e.g. Johansson et al. 2002; Findik et al. 2010), but at the same time demonstrated the influence of education (educated patients were less satisfied) and age (elderly people were more satisfied) on satisfaction with nursing care, which our investigation did not confirm. In a study carried out on the surgical wards of four hospitals in Moravian-Silesian Region (Jarošová et al. 2011) there was shown the affect of education and length of stay of patients on their satisfaction with the care provided – contrary to our research, the patients with higher professional education expressed greater overall satisfaction and satisfaction in the field of information than patients with secondary education. In accordance with our study the patients hospitalized for more than seven days were significantly more satisfied. Length of stay also influenced patients' satisfaction with hospital in Orlová, where the higher satisfaction scores with nursing care were measured in promoting and interaction in patients hospitalized for more than seven days. In our research we did not confirm statistically significant differences in the satisfaction rating between hospitals or between the particular departments.

## CONCLUSION

The study was carried out in collaboration with the management of the hospital in preparation for the accreditation and based on a desire to improve the quality of services provided. Overall patient satisfaction with nursing care was relatively high (average 3.58 out of 4, which means reaching the level of 89.5%). Between hospitals or between departments there were no statistically significant differences in the evaluation of patient satisfaction. Processed results were presented to hospital management, chief nurses and they are permanently available for all staff on the hospital intranet. The biggest weakness in providing nursing care on all monitored wards of both hospitals was, according to the observations of

patients, providing information both during the stay and prior to their release from hospital. It is appropriate to evaluate repeatedly patient satisfaction with the care provided at regular intervals, to make possible to compare results and possible changes with the previous period. The outputs of the investigations should be used for improving the quality of nursing care.

*This post is patronized by project SGS OU\_SGS4/LF/2011.*

## REFERENCES

- DOZIER, A., M., KITZMAN, H., J., INGERSOLL, G., L., HOLMBERG, S., SCHULTZ, A., W. 2001. Development of an instrument to measure patient perception of the quality of nursing care. *Research in Nursing and Health*. 2001, vol. 24, no. 6, p. 506–517. ISSN 1098-240X.
- EXNER, L., RAITER, T., STEJSKALOVÁ, D. 2005. *Strategický marketing zdravotnických zařízení*. 1st ed. Praha: Professional Publishing, 2005. 188 p. ISBN 80-86419-73-8.
- FARKAŠOVÁ, D. et al. 2006. *Ošetrovatelství – teorie*. 1st ed. Martin: Osveta, 2006. 211 p. ISBN 80-8063-227-8.
- FINDIK, U., Y., UNSAR, S., SUT, N. 2010. Patient satisfaction with nursing care and its relationship with patient characteristics. *Nursing & Health Sciences*, 2001, vol. 12, no. 2, p. 162–169. ISSN 1442-2018.
- GLADKIJ, I. et al. 2003. *Management ve zdravotnictví*. Brno: Computer Press, 2003. 393 p. ISBN 80-7226-996-8.
- JAROŠOVÁ, D., JANÍKOVÁ, E., VRUBLOVÁ, Y., ZELENÍKOVÁ, R., TOMÁŠKOVÁ, H., PAPASTAVROU, E. 2011. Spokojenost pacientů s ošetrovatelskou péčí na chirurgických odděleních. *Praktický lékař*. 2011, vol. 91, no. 5, p. 269–273. ISSN 0032-6739.
- JOHANSSON, P., OLÉNI, M., FRILUND, B. 2002. Patient satisfaction with nursing care in the context of health care: a literature study. *Scandinavian Journal of Caring Sciences*. 2002, vol. 16, no. 4, p. 337–344. ISSN 1471-6712.
- KIM, H., S. 1991. Patient-Nurse collaboration in nursing care decision making: American studies. In *International Nursing Research Conference, Nursing Research: Global Health Perspectives*. Los Angeles, CA: American Nurses Association and Council of Nurse Researchers, 1991. 399 p. ISBN not available.
- MADAR, J. et al. 2004. *Řízení kvality ve zdravotnickém zařízení*. 1st ed. Praha: Grada Publishing, 2004. 248 p. ISBN 80-247-0585-0.

MASTILIAKOVÁ, D. 2002. *Úvod do ošetrovatelství – II. díl systémový přístup*. 1. vyd. Praha: Karolinum, 2002. 160 p. ISBN 80-246-0428-0.

SUHONEN, R., LEINO-KILPI, H., VÄLIMÄKI, M., KIM, H., S. 2007. The Patient Satisfaction Scale – an empirical investigation into the Finnish adaptation. *Journal of Evaluation in Clinical Practice*. 2007, vol. 13, no. 1, p. 31–36. ISSN 1365-2753.

SUHONEN, R., PAPASTAVROU, E., EFSTATHIOU, G., TSANGARI, E., JAROSOVA, D., LEINO-KILPI, H., PATIRAKI, E., KARLOU, E., BALOGH, Z.,

MERKOURIS, A. 2012. Patient satisfaction as an outcome of individualised nursing care. *Scandinavian Journal of Caring Sciences*. 2012, vol. 26, no. 2, p. 372–380. ISSN 1471-6712.

#### CONTACT DETAILS OF MAIN AUTHOR

Mgr. Jarmila Winklerová  
Prstná 3  
CZ-735 72 PETROVICE U KARVINÉ  
jarmaw@seznam.cz