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Research Article

Nursing Care Perceptions of the Patients in The Chest Diseases Inpatient Clinic

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Abstract

Aim: Nursing care constitutes an important element of healthcare provider and patient satisfaction because the nature of the service provided requires intense and close communication with patients. In this study, the goals were to determine patient satisfaction and the effects of patient factors contributing to it inpatients in a chest disease clinic.
Material and Method: Our descriptive and cross-sectional study included the patients who had been hospitalized in our clinic. Details about the patients have been recorded through one-on-one interviews using the "Patient Information Form" and "Patient's Perception of Nursing Care Scale". The relevance between patients' socioeconomic status and nursing care perception has been investigated.
Results: Eighty-six patients treated as inpatients in our Chest Diseases Clinic between March and May 2021 were included. The mean age was 67.4±12.5 years, with 59.3% male and 40.7% female. The average hospital stay was 6.4±5.9 days. No significant relationship was found between age, sex, and patient satisfaction (p=0.230 and p=0.350). However, higher education levels were linked to lower satisfaction (p=0.020). Overall, patient satisfaction was higher than the general average.
Conclusion: While the level of satisfaction with nursing is generally independent of age and gender; it is directly related to the level of education and the level of expectation from health care. Patients' satisfaction level can be increased with an approach, communication and care services appropriate to patient characteristics.

Keywords: Nursing care, patient satisfaction, health care

INTRODUCTION

In today's world, the competitive environment surrounding the delivery of healthcare services is increasingly intensifying. Changes in patient expectations, healthcare costs, and the growing awareness among administrators, healthcare professionals, and patients have all contributed to making patient satisfaction a critical component of healthcare services (1). With the growing awareness, interest in patient satisfaction has gained increasing importance in recent years. Patient satisfaction is regarded as an indicator of the quality of the healthcare service delivery process.

Nurses are the healthcare professionals with whom patients interact most frequently during healthcare processes, including their care and treatment. Nurses play an active role in the provision of healthcare services and they make significant contributions to the maintenance of individual health, the treatment of illnesses, and rehabilitation. They provide continuous care throughout the patient's hospital stay and are the most consistently accessible members of the healthcare team from the patients' perspective (2).

Improving the quality of nursing care, shaped by the interplay of patient expectations and perceptions, requires that the healthcare team—especially nurses—be aware of how patients perceive nursing care and of the factors that affect these perceptions (3). Patient satisfaction is influenced by the patient's expectations of the healthcare institution and nursing care, as well as by their past experiences. When patients are consistently able to interact with the same nurses with whom they have previously established communication upon returning to a healthcare facility, their satisfaction tends to increase. In addition, the job satisfaction of nurses providing healthcare services also influences patients' satisfaction with the nursing care they receive. A nurse who expresses being overworked or having workplace-related issues can negatively affect patients' levels of

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satisfaction and their perceptions of care. Moreover, the work environment in which the nursing profession is practiced stands out as an important indicator of how patients perceive the quality of care (4).

This study aimed to identify the perceptions of nursing care among inpatients receiving treatment in the Department of Pulmonology, to improve service quality, to determine deficiencies in nursing care services, and to identify aspects that need further development. In this way, the findings may contribute to the planning and improvement of pre-graduation education for nursing students, as well as in-service training programs for currently practicing nurses.

MATERIAL AND METHOD

Type of Study

The study was designed as a cross-sectional study.

Study Population and Sampling

The study was conducted in the Chest Diseases Clinic of our hospital between March and May 2021. The study population consisted of 102 patients who were hospitalized for treatment during this period, while the sample included 86 patients who met the inclusion criteria (being over 18 years of age, being literate, and being willing to participate in the study). Sixteen patients who were unable to provide informed consent due to communication or cognitive impairments were excluded from the study. In our study, a power analysis conducted using (G*Power 3.1.9.4) indicated that a sample size of 85 patients would be required to achieve 80% statistical power with a 95% confidence interval.

Data Collection

The 'Patient Information Form' and the 'Patient Perception of Nursing Care Scale (PPNCS)' were administered face-to-face to patients hospitalized in the Chest Diseases Unit.

Data Collection Tools

Patient Information Form:

In the Patient Information Form, the patients included in the study were grouped socio-demographically based on their name and surname, file number, age, gender, length of hospital stay, education level, marital status, occupation, income level, place of residence, number of hospitalizations in the past year, presence of comorbidities, number of patients in the room, reason for choosing the hospital, and presence of a companion. Patients were categorized into age groups as follows: 19–40, 41–65, 66–80, and over 80 years old. Patients were categorized based on length of hospital stay into the following groups: 0–3 days, 4–7 days, 8–14 days, and more than 14 days. Educational status was categorized as illiterate, literate, primary education, high school, and university level. In the assessment of income status, participants were categorized as having income lower than expenses, income equal to expenses, income higher than expenses, or no income. Based on place of residence, patients were categorized as residing in a city center, district, township, or rural village. The number of hospitalizations within the last year was categorized as: one, two, and three or more admissions. Patients were grouped based on the number of individuals in the hospital room as either one or two persons. Patients were classified based on their reason for hospital preference, such as recommendation, physician preference, emergency admission, referral, being under follow-up care, previous hospitalization experience, allowance of a companion, and presence of a companion.

Patient Perception of Nursing Care Scale:

The Patient Perception of Nursing Care Scale (PPNCS) is a 15-item, five-point Likert-type scale designed to measure patients' perceptions of nursing care, originally developed by Dozier et al (5). The Turkish adaptation of the scale was conducted by İ.G. Çoban, and its validity and reliability have been demonstrated (6). Participants responded to the items by selecting one of the following options: strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). The scores of each item on the scale were summed and then converted to a score out of 100, resulting in a total score ranging from 0 to 100. A total score of 100 was interpreted as an indication of complete satisfaction with all aspects of the nursing care received.

Statistical Analysis of the Data

Statistical analyses of the study data were performed using SPSS Statistics version 21. Descriptive statistical measures used in the study were frequency, percentage, mean, median (with interquartile range), and standard deviation. The Student's t-test was used to compare numerical variables with normal distribution, while the Mann–Whitney U test was applied for variables that did not follow a normal distribution. The comparison of categorical variables was performed using the Chi-square test. In all statistical analyses, a p-value <0.05 was accepted as the threshold for statistical significance.

Ethical Considerations of the Study

The study was approved by the Health Sciences Ethics Committee of the Manisa Celal Bayar University Faculty of Medicine (Approval date: February 24, 2021; Decision number: 20.478.486). All patients provided written informed consent. The study adhered to the principles of the Declaration of Helsinki and the guidelines of the approving ethics committee.

RESULTS

The study sample comprised 86 patients hospitalized in a pulmonary diseases clinic. The mean age was 67.4±12.5 years, with a predominance of male patients (59.3%). The average length of hospital stay was 6.4±5.9 days. Most participants were married (80.2%) and retired or homemakers by occupation. Educational attainment was generally low; 48.6% of patients had completed only primary school or had no formal education, while only 9.3% were university graduates.

Regarding economic status, nearly half (46.5%) reported income below their expenses, and 15.1% were dependent on external support. A substantial portion of patients resided

in non-urban areas—towns (17.5%), villages (20.9%), or districts (27.9%)—while 33.7% lived in the provincial center.

Most participants (75.6%) had been hospitalized more than once in the past year, and a high proportion (88.4%) had at least one chronic comorbidity, the most common being hypertension (31.4%), heart failure (26.7%), and chronic obstructive pulmonary disease (COPD) (22.1%).

The primary factors influencing hospital preference were emergency medical needs (31.4%), physician choice (18.6%), and continuity of follow-up care (12.8%). More than half of the patients (59.3%) were accompanied by a caregiver during hospitalization (Table 1).

Table 1. Sociodemographic Characteristics of the Patients (n=86)

Variable	Categories	n (%)
Age (mean±SD)	—	67.4 ±12.5
Gender	Male/Female	51 (59.3)/35 (40.7)
Marital status	Married/Single	69 (80.2)/17 (19.8)
Education	Illiterate/Literate/Primary/High school/University	9 (10.4)/17 (19.8)/33 (38.4)/19 (22.1)/8 (9.3)
Occupation	Civil servant/Worker/Self-employed/ Farmer/Retired/Housewife/Other	11 (12.8)/7 (8.1)/9 (10.5)/7 (8.1)/22 (25.6)/ 26 (30.2)/4 (4.7)
Income	Lower/Equal/Higher/None	40 (46.5)/24 (27.9)/9 (10.5)/13 (15.1)
Residence	City/District/Town/Village	29 (33.7)/24 (27.9)/15 (17.5)/18 (20.9)
Length of stay (days)	—	6.4±5.9
Hospitalizations (last year)	1/2/≥3	21 (24.4)/32 (37.2)/33 (38.4)
Comorbidities	Yes/No	76 (88.4)/10 (11.6)
Comorbidity types	COPD/Asthma/Hypertension/Diabetes/Lung cancer/ Other cancers/PLD/HF/CAD/CTD/Other	19/5/27/15/9/4/13/23/16/7/5
Room type	Single/Double	13 (15.1)/73 (84.9)
Reason for hospital choice	Emergency/Physician/Follow-up /Recommendation/ Referral/Previous admission/ Companion allowed	27 (31.4)/16 (18.6)/11 (12.8)/9 (10.5)/ 7 (8.1)/11 (12.8)/5 (5.8)
Companion presence	Yes/No	51 (59.3)/35 (40.7)

SD: standard deviation, n: number, COPD: chronic obstructive pulmonary disease, HT: hypertension, DM: diabetes mellitus, Ca: cancer, PLD: parenchymal lung disease, HF: heart failure, CAD: coronary artery disease, CTD: connective tissue disease

A total of 65 patients (75.6%) stated that nurses responded to them promptly, 69 (80.2%) reported that nurses gave their full attention during care, and 58 (67.4%) indicated that nurses helped them become more aware of the realities of their illness. These rates were found to be higher among patients with chronic conditions and those with a history of more than three hospitalizations within the past year (Table 2).

Table 2. Patients' Perceptions of Nursing Care Scale (PPNCS) results

Item	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)	Mean score
They helped me become more realistic.	3.4	7.0	9.3	19.8	60.5	84.7
They considered more than just my basic needs.	10.5	9.3	5.8	15.1	59.3	83.1
They responded to my needs immediately.	2.3	4.6	7.0	10.5	75.6	89.9
They gave me their full attention during care.	1.2	8.1	1.2	9.3	80.2	91.4
They consulted me before doing most things.	4.6	8.1	4.6	12.8	69.8	87.8
They made me feel comfortable in the hospital.	9.3	10.5	12.8	18.6	48.8	74.2
They informed me about things I didn't know about the hospital.	5.8	4.6	17.4	16.3	55.9	79.3
I'm confident they notified the right people about my needs and wishes.	2.3	2.3	19.8	25.5	51.1	77.2
I feel confident they would be there when I needed them.	1.2	3.5	9.3	10.5	75.5	89.8
I feel they understood what my illness means to me.	3.5	8.1	11.6	9.4	67.4	85.7
I know some problems were prevented thanks to nurses' efforts.	4.6	9.3	9.3	20.9	55.9	81.0
They helped me cope with fears related to my illness.	10.5	13.9	8.1	22.1	45.4	73.9
Their explanations helped me feel at ease.	4.6	1.2	24.4	27.9	41.9	71.8
They comforted me during treatments.	2.3	5.8	5.8	20.9	65.2	86.2
Thanks to the nurses, I felt well cared for.	3.5	3.5	12.8	11.6	68.6	87.3

PPNCS: Patient Perception of Nursing Care Scale

The analysis of Patients' Perceptions of Nursing Care Scale (PPNCS) scores according to demographic and clinical variables revealed statistically significant differences, particularly when evaluated by education and income levels. A clear inverse relationship was observed, indicating that as the level of education increased, perceived satisfaction with nursing care decreased (p=0.020). Illiterate patients reported the highest satisfaction levels (89.7%), followed by those with basic literacy (89.5%), primary school graduates (88.9%), high school graduates (87.4%), and university graduates (73.1%). Similarly, income level was found to significantly impact satisfaction, with lower-income patients reporting higher satisfaction levels (p=0.030).

Geographic location also played a role: patients residing in rural areas (villages: 92.2%, towns: 89.4%) reported higher satisfaction compared to those living in urban centers (districts: 89.0%, provincial centers: 82.7%; p=0.021).

The duration of hospitalization had minimal effect on satisfaction levels among patients staying up to 14 days (0–3 days: 88.5%, 4–7 days: 88.3%, 8–14 days: 87.9%). However, a notable decline in satisfaction was observed among those hospitalized for more than 14 days (81.7%).

Comorbidity status significantly influenced satisfaction; patients with additional chronic illnesses reported higher satisfaction scores (p=0.035). Additionally, a positive correlation was observed between the frequency of hospitalizations within the past year and satisfaction with nursing care—patients hospitalized three times or more expressed the highest satisfaction levels (p=0.041).

Lastly, room occupancy emerged as another determinant: patients in single-occupancy rooms reported significantly higher satisfaction (94.8%) compared to those in double-occupancy rooms (87.5%; p=0.025) (Table 3).

In the evaluation according to age groups and gender, no significant differences were found in satisfaction scores (p=0.230 and p=0.350, respectively).

Table 3. Relationship between patients' sociodemographic characteristics and PPNCS scores

Variable		n (%)	PPNCS Mean	P value
Age (years)	19–40	11 (12.8)	85.2	0.230
	41–65	23 (26.7)	86.1	
	66–80	38 (44.2)	87.9	
	>80	14 (16.3)	88.4	
Gender	Male	51 (59.3)	88.9	0.350
	Female	35 (40.7)	87.8	
Length of stay (days)	0–3	18 (20.9)	88.5	0.165
	4–7	36 (41.9)	88.3	
	8–14	23 (26.7)	87.9	
	>14	9 (10.5)	81.7	
Marital status	Married	69 (80.2)	88.6	0.201
	Single	17 (19.8)	90.2	
Education	Illiterate	9 (10.4)	89.7	0.020*
	Literate	17 (19.8)	89.5	
	Primary	33 (38.4)	88.9	
	High school	19 (22.1)	87.4	
	University	8 (9.3)	73.1	
Occupation	Civil servant	11 (12.8)	84.4	0.070
	Worker	7 (8.1)	86.2	
	Self-employed	9 (10.5)	86.5	
	Farmer	7 (8.1)	88.2	
	Retired	22 (25.6)	88.7	
	Housewife	26 (30.2)	89.3	
	Other	4 (4.7)	83.5	
Income	Less than expenses	40 (46.5)	88.8	0.030*
	Equal to expenses	24 (27.9)	86.4	
	More than expenses	9 (10.5)	73.2	
	No income, supported	13 (15.1)	90.3	

COPD: chronic obstructive pulmonary disease, DM: diabetes mellitus, HF: heart failure, HT: hypertension, n: number, PPNCS: Patient Perception of Nursing Care Scale

Table 3. Relationship between patients' sociodemographic characteristics and PPNCS scores

Variable		n (%)	PPNCS Mean	P value
Residence	City center	29 (33.7)	82.7	0.021*
	District	24 (27.9)	89.0	
	Town	15 (17.5)	89.4	
	Village	18 (20.9)	92.2	
Hospitalizations (last year)	One	21 (24.4)	82.5	0.041*
	Two	32 (37.2)	86.3	
	≥3	33 (38.4)	91.3	
Comorbidities	Present (e.g., COPD, HT, DM, HF)	76 (88.4)	89.7	0.035*
	Absent	10 (11.6)	79.6	
Room occupancy	Single	13 (15.1)	94.8	0.025*
	Double	73 (84.9)	87.5	
Hospital preference reason	Recommendation	9 (10.5)	89.6	0.075
	Doctor	16 (18.6)	89.0	
	Emergency	27 (31.4)	88.3	
	Referral	7 (8.1)	88.4	
	Follow-up	11 (12.8)	88.5	
	Previous admittance	11 (12.8)	89.1	
	Companion allowed	5 (5.8)	87.2	
Companion presence	Yes	51 (59.3)	88.9	0.190
	No	35 (40.7)	88.5	

COPD: chronic obstructive pulmonary disease, DM: diabetes mellitus, HF: heart failure, HT: hypertension, n: number, PPNCS: Patient Perception of Nursing Care Scale

DISCUSSION

In this study, which aimed to determine the satisfaction levels of inpatients receiving care in a pulmonology clinic with nursing services and to reflect their perceptions and opinions regarding nursing care, the values obtained were found to be above the overall average (7).

In our study, differences were observed in the mean PPNCS scores when classified according to length of hospital stay, educational level, income status, place of residence, number of hospitalizations within the past year, presence of comorbidities, and number of patients in the room. Among these parameters, only length of stay—specifically in patients hospitalized for more than 14 days—was not statistically significant, whereas the others showed statistically significant differences. The lower mean PPNCS score among patients with a hospital stay longer than 14 days may be due to the smaller number of patients in this group (n=9, 10.5%) compared to others, or it may reflect the negative impact of prolonged hospitalization on patient satisfaction.

An analysis based on educational status revealed an inverse correlation between the level of education and satisfaction with nursing care; as the educational level increased, the mean scores on the Patient Satisfaction with Nursing Care Scale (PPNCS) demonstrated a declining trend (p=0.020). This situation may be attributed to the fact that individuals with higher levels of education tend to have greater expectations. As the overall educational level of society increases, individuals become more culturally informed, more capable of critically evaluating the services they receive, and more actively involved in their own care processes. Consequently, this situation may lead to the emergence of patients with evolving and increasingly diverse expectations regarding the quality and delivery of healthcare services. It is emphasized that satisfaction with nursing care is closely linked to patient expectations, which tend to increase in parallel with higher levels of education. Consequently, it is often observed that patients with higher educational backgrounds report lower levels of satisfaction. As a result, the expectations of patients regarding the quality of healthcare services are rising, which directly influences their perception of satisfaction. A review of similar studies in the literature reveals notable variations in the findings. While some studies report results consistent with those of the present study (8,9), others have yielded differing outcomes (10,11).

In the gender-based analysis conducted in our study, the mean scores on the Patient Satisfaction with Nursing Care Scale (PPNCS) were found to be similar for both male and female patients. The reason for this may be that both male and female patients have similar expectations and perceptions of healthcare services, especially within the same clinical and cultural context; this could explain why expectations between men and women were similar in our study.However, some studies in the literature have reported

that female patients tend to express higher levels of satisfaction compared to their male counterparts (10,12). This difference may be attributed to the traditional societal roles assigned to women from an early age, particularly their primary responsibility in meeting basic needs such as clothing and nutrition.

When the mean scores on the Patient Satisfaction with Nursing Care Scale (PPNCS) were evaluated according to age, no significant differences were observed (p=0.230). The lack of a significant difference according to age in our study may be explained by the sample size or the influence of cultural factors. However, a review of related studies reveals varying results in the literature. While the findings of some studies are consistent with those of the present study (13,14), other studies have reported that satisfaction levels tend to increase with advancing age (14,15).

In our study, the analysis based on the presence of a companion revealed no significant difference in patient satisfaction between those with and without a companion (88.9% vs. 88.5%, p=0.190). This finding may be explained by patients' ability to independently meet their personal needs and perform self-care.

The primary limitation of our study is that it was conducted exclusively with inpatients in the pulmonology clinic, meaning that the participants represent only a small segment of the overall patient population. However, the adequacy of the sample size and the consistent, homogeneous distribution of the results support the reliability of our findings. A notable strength of this study is that it represents one of the pioneering efforts to investigate patient satisfaction with nursing care services specifically in pulmonology clinics, a subject that remains underexplored in the literature. Future research should include other medical specialties, compare satisfaction levels across various disciplines, and more clearly identify the factors influencing patient satisfaction through broader, interdisciplinary investigations.

CONCLUSION

In conclusion, the overall mean score on the Patient Satisfaction with Nursing Care Scale (PPNCS) was found to be high. However, the analysis revealed that patients with higher levels of education and income, as well as those residing in urban areas, reported comparatively lower satisfaction levels. The findings highlight the importance of tailoring nursing care to the specific characteristics of each patient. Personalized care approaches, effective communication, and needs-based nursing interventions can significantly enhance patient satisfaction. These results may serve as a guide for improving nursing service planning and promoting a more patient-centered approach in clinical practice.

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