The Relationship Between Patients' Perceptions of Illness and Their Satisfaction with Nursing Care

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Abstract

Background: Patients' perceptions of illness and their satisfaction with nursing care significantly impact the overall quality of healthcare.

Aim: This study aimed to examine the relationship between hospitalized patients' perceptions of illness and their satisfaction with nursing care.

Methods: This descriptive and correlational study included a sample of hospitalized 255 patients. Data were collected using the Patient Identification Form, the Illness Perception Questionnaire, and the Newcastle Satisfaction with Nursing Care Scale. Data collection was conducted through face-to-face surveys between July 2022 and July 2023. Descriptive statistics, t-test, one-way analysis of variance (ANOVA), and Pearson correlation analysis were used to analyze the data. Statistical significance was set at $p<0.05$.

Results: The mean age of the patients was 49.29±15.93 years, with an average hospital stay of 3.24±1.58 days and a mean number of hospitalizations of 2.07 ± 0.86. Among the participants, 59.6% were female, 75.3% were married, and 53.3% reported a middle income level. Pain (90.2%) and fatigue (63.5%) were the most frequently reported symptoms since the onset of illness. The mean total score of the "Opinions About the Illness" subscale was 117.53±10.41, while the mean score for the "Illness Causal Subscale" was 35.24±10.31. The mean total score on the Newcastle Satisfaction with Nursing Care Scale was 63.81±12.18. A statistically significant, weak positive correlation was found between patients' total scores on the Newcastle Satisfaction with Nursing Care Scale and the Illness Identity Subscale, specifically, the item "*I have experienced this symptom since the beginning of my illness*" (r=0.244; p=0.000) and the item "*This symptom is related to my disease*" (r=0.253; p=0.000).

Conclusion: This study revealed that patients receiving inpatient care and treatment in internal medicine and surgical wards had below-average perceptions of their illness and moderate levels of satisfaction with nursing care. Based on these findings, it is recommended that educational programs be implemented to improve patients' illness perceptions, along with initiatives aimed at enhancing the quality of nursing care.

Keywords: Care satisfaction, illness perception, nurse, patient

Introduction

Hospitalized patients receive healthcare services from healthcare professionals for various reasons, including surgical interventions, general care, diagnosis, and treatment. Having a chronic illness, undergoing surgery, or experiencing hospitalization places a significant burden on individuals and can negatively affect their quality of life.[1,2] During hospitalization and after discharge, individuals must cope with symptoms and problems related to their condition.[3] This process can influence each patient's perception of their illness in unique ways. The perception of illness, which encompasses both subjective and objective aspects, can vary from person to person.[1,4]

Illness perception is defined as the combination of cognitive and emotional responses to a current disease state.[4,5] Many individuals experience illness at some point in their lives and may react to it in different ways. These reactions reflect their methods of managing the illness and the meaning they attribute to it. Illness perception encompasses how patients interpret and evaluate their symptoms and overall health condition. It may influence their treatment adherence, psychological well-being, and overall quality of life.[1,4–6] According to the literature, illness perception can be shaped by various factors, including individuals' past hospital experiences, personal beliefs and values, environmental influences, and it may evolve over time.[1–3] For patients, understanding their perception of illness and the factors that influence it is important for providing effective and individualized care. Coping with the physical, emotional, and psychological challenges caused by illness, along with the level of adaptation demonstrated, are key determinants of a patient's quality of life.[1–3]

Satisfaction with nursing care among hospitalized patients is one of the primary indicators of the healthcare quality.[7,8] Patient satisfaction encompasses expectations and evaluations throughout the entire care process, beginning with hospitalization, continuing during treatment or care, and concluding with discharge.[8,9] Nursing care plays a central role in patient satisfaction, as patients typically have more frequent and direct contact with nurses than with other healthcare professionals. Additionally, the provision of individualized nursing care further strengthens this relationship.[7,8,10,11] It is believed that improving satisfaction with nursing care can help reduce patients' stress and anxiety levels, foster a sense of safety, support adher-

ence to treatment, shorten hospital stays, enhance communication and feedback, and promote the visibility, continuity, and effectiveness of nursing services.[9–11]

The level of satisfaction of hospitalized patients with nursing care may be influenced by various factors, including the hospital environment, environmental conditions, disease status, patients' perceptions and experiences of their illness, and their communication with healthcare professionals.[8,9,11] Identifying these factors, understanding how patients perceive their illness, and planning appropriate feedback and improvements are believed to impact patients' satisfaction with nursing care. A review of the literature revealed that studies evaluating both the illness perception of hospitalized patients and their satisfaction with nursing care are limited,[2,6,9,11] and no studies were found that directly examined the relationship between the two.

Aim of the Study

The aim of this study is to examine the relationship between hospitalized patients' illness perceptions and their satisfaction with nursing care.

Research Questions

1. What is the level of illness perception among hospitalized patients?
2. What is the level of satisfaction with nursing care among hospitalized patients?
3. What is the relationship between hospitalized patients' illness perception and their satisfaction with nursing care?
4. Do illness perception and satisfaction with nursing care differ according to the sociodemographic characteristics of hospitalized patients?

Materials and Methods

Study Design

This research is descriptive and correlational in design.

Setting

The study population consisted of patients hospitalized in inpatient clinics of a state hospital located in the Black Sea Region, who were receiving treatment and care services. The internal medicine clinics in the study were Cardiology, Internal Medicine, Infectious Diseases, Neurology, Oncology, Hematology, Chest Diseases, and Dermatology. The surgical clinics included Neurosurgery, Urology and Thoracic Surgery, General Surgery, Orthopedics, Ear, Nose, and Throat, Ophthalmology, and Cardiovascular Surgery.

The sample size was based on the 62.3% satisfaction level reported by Kayrakcı and Özşaker[11] in 2014 in their study evaluating surgical patients' satisfaction with nursing care. Based on this rate, a sample size calculation using the G*Power program determined that 255 participants would be sufficient to achieve 90% statistical power. The study was completed with a total of 255 patients. Inclusion criteria were: being 18 years of age or older, having the cognitive ability to understand and respond to the survey questions, being hospitalized for at least 48 hours, and voluntarily agreeing to participate in the study.

Data Collection Tools

Data were collected using the Patient Identification Form, the Illness Perception Questionnaire (IPQ), and the Newcastle Satisfaction with Nursing Scale (NSNS).

Patient Identification Form

A diagnostic form developed by the researchers based on the relevant literature was used.[1–5,6,12] This form consists of 13 questions. It includes items regarding the patients' age, gender, marital status, length of hospitalization, the number of previous hospitalizations (including the current one), whether they have previously received treatment or care in the same hospital, income level, education level, employment status, presence of health insurance, the department in which they are hospitalized, whether they observed any improvements in nursing services during prior hospitalizations, and whether they are currently using any medications.

The Illness Perception Questionnaire

The Illness Perception Questionnaire was originally developed by Weinman et al. in 1996, revised by Moss-Morris et al. in 2002, and adapted into Turkish by Kocaman et al.[5] in 2007. The IPQ consists of three subscales: the Illness Identity Subscale, Opinions About Illness Subscale, and the Illness Causal Subscale. The Illness Identity

Subscale includes 14 illness-related symptoms: pain, sore throat, nausea, breathlessness, weight loss, fatigue, stiff joints, sore eyes, wheeziness, headaches, upset stomach, sleep difficulties, dizziness, and loss of strength. The Opinions About Illness includes seven dimensions: timeline (acute/chronic), consequences, personal control, treatment control, illness coherence, timeline (cyclical), and emotional representations. The Illness Causal Subscale consists of 18 items and is related to the patients' beliefs about the possible causes of their illness. In the study of Kocaman et al.[5] in 2007, the Cronbach's alpha coefficients for the subscales of the IPQ were reported as follows: 0.89 for the Illness Identity Subscale, 0.69–0.77 for the Opinions About Illness Subscale, and 0.25–0.72 for the Illness Causal Subscale. In the present study, the Cronbach's alpha values were as follows: Illness Identity Subscale – 0.877, Opinions About Illness Subscale – 0.674, and Illness Causal Subscale – 0.817.

Newcastle Satisfaction with Nursing Scale

The Newcastle Satisfaction with Nursing Scale was developed by Thomas et al. in 1995 to evaluate and compare the effectiveness of nursing care, clinical practices, and patient experience and satisfaction. The scale was adapted into Turkish by Uzun in 2003 and by Akın and Erdoğan in 2007.[12] The NSNS consists of a single dimension with 19 items rated on a five-point Likert scale. Scores range from a minimum of 19 to a maximum of 95 points. The total score is obtained by summing all item scores and converting the result to a scale of 0–100. The scale does not have a cut-off point; a higher total score indicates higher patient satisfaction. In the Turkish validity study conducted by Akın et al.[12] in 2007, the Cronbach's alpha coefficient was found to be 0.96. In the present study, the Cronbach's alpha coefficient for the Newcastle Satisfaction with Nursing Scale was 0.93.

Data Collection

After identifying participants who met the inclusion criteria, the purpose and importance of the study were explained to them. Informed consent was then obtained, including a statement assuring that personal information would remain confidential and would not be shared with anyone. The questionnaires were administered by the researcher through face-to-face interviews, during which questions were read aloud and answered by the participants. Data were collected by the researcher using the face-to-face interview method, with all measurement tools completed during a single session in the patient's room. Interviews were conducted at times when patients were rested, pain-free, and not undergoing care or treatment. The research data were collected between July 2022 and July 2023 using face-to-face surveys. Each data collection session took approximately 10–15 minutes.

Data Analysis

Quantitative data obtained from the study were analyzed using the Statistical Package for the Social Sciences version 22.0 (IBM, New York, USA). Statistical methods including numbers, percentage, minimum and maximum values, mean, and standard deviation were used to summarize the data. The normality of data distribution was assessed using the Kolmogorov-Smirnov test and by examining skewness and kurtosis coefficients. For comparisons between independent groups, parametric tests including the t-test and one-way analysis of variance (ANOVA) were used. To evaluate the relationship between continuous variables, Pearson correlation analysis was used, as the data met the assumptions of normal distribution. Statistical significance was set at $p < 0.05$.

Ethical Considerations

Ethical approval for the study was obtained from the Clinical Research Ethics Committee of Ordu University (Approval Number: 165, Date: 01.07.2022), and written institutional permission was granted by the Provincial Directorate of Health. Additionally, patients were provided with detailed information about the study, and written informed consent was obtained from each participant. The study was conducted in accordance with the principles outlined in the Declaration of Helsinki. Permission to use the data collection scales was obtained from the original authors via email.

Results

The mean age of the patients was 49.29±15.93 years, the average length of hospital stay was 3.24±1.58 days, and the mean number of hospitalizations was 2.07±0.86 times. In this study, 59.6% of the participants were female, 75.3% were married, and 53.3% reported a middle income level. Additionally, 40% of the patients were high school graduates, 20.4% were not working due to illness, and 94.5% had health insurance. Among the patients included in the study, 57.6% were hospitalized in inter-

Table 1. Sociodemographic characteristics of patients (n=255)

Sociodemographic characteristics	Min-max	Mean±SD		n	%
Age (years)	18–90	49.29±15.93	Education level		
Length of hospital stay (days)	1–15	3.24±1.58	High school	102	40.0
Number of hospitalizations (mean)	1–6	2.07±0.86	Undergraduate/graduate	50	19.6
	n	**%**	Working status		
			Not working due to illness	52	20.4
Gender			Not working (other reasons)	148	58.0
Female	152	59.6	Working	55	21.6
Male	103	40.4	Health Insurance		
Marital status			Yes	141	94.5
Married	192	75.3	No	14	5.5
Single	63	24.7	Clinic type		
Income level			Internal medicine clinic	147	57.6
Low	13	5.1	Surgical clinic	108	42.4
Middle	136	53.3	Previous hospitalization at this hospital		
High	87	34.1	Yes	85	33.3
Very high	19	7.5	No	170	66.7
Education level			Medication use		
Literate	39	15.3	Using	173	67.8
Primary-secondary education	64	25.1	Not using	82	32.2

Min: Minimum, Max: Maximum, SD: Standard deviation.

Table 2. Distribution of patients' illness perception questionnaire (IPQ) subscale disease type scores

IPQ subscale symptom	I have experienced this symptom since the beginning of my illness				This symptom is related to my disease				
	Yes		**No**		**Yes**		**No**		
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	
Pain	230	90.2	25	9.8	239	93.7	16	6.3	
Sore throat	17	6.7	238	93.3	30	11.8	225	88.2	
Nausea	61	23.9	194	76.1	80	31.4	175	68.6	
Breathlessness	35	13.7	220	86.3	47	18.4	208	81.6	
Weight loss	111	43.5	144	56.5	124	48.6	131	51.4	
Fatigue	162	63.5	93	36.5	157	61.6	98	38.4	
Stiff joints	55	21.6	200	78.4	77	30.2	178	69.8	
Sore eyes	15	5.9	240	94.1	39	15.3	216	84.7	
Wheeziness	17	6.7	238	93.3	41	16.1	214	83.9	
Headaches	68	26.7	187	73.3	93	36.5	162	63.5	
Upset stomach	69	27.1	186	72.9	89	34.9	166	65.1	
Sleep difficulties	103	40.4	152	59.6	121	47.5	134	52.5	
Dizziness	53	20.8	202	79.2	98	38.4	157	61.6	
Loss of strength	114	44.7	141	55.3	151	59.2	104	40.8	
	Min-max		**Mean±SD**		**Min-max**		**Mean±SD**		**Cronbach's Alpha**
Illness identity subscale	16–28		23.64±2.56		13–25		20.68±3.28		0.877

Min: Minimum, Max: Maximum, SD: Standard deviation.

nal medicine clinics and 42.4% in surgical clinics. It was also found that 33.3% of the patients had not been previously hospitalized in the hospital where the study was conducted, and 67.8% of the patients were using medication [Table 1].

In this study, it was found that patients most frequently experienced the symptoms of pain (90.2%) and fatigue (63.5%), according to the IPQ. Additionally, patients most commonly believed that the symptoms of pain (93.7%), fatigue (61.6%), and loss of strength (59.2%) were related to their illness. The total mean score for the item "*I have experienced this symptom since the beginning of my illness*" on the Illness Identity Subscale was 23.64±2.56, while the total mean score for the item "*This symptom is related to my disease*" on the Illness Identity Subscale was 20.68±3.28 [Table 2].

Table 3. Distribution of patients' scores on the opinions about illness subscale, illness causal subscale, and newcastle satisfaction with nursing scale (NSNS)

Illness causal subscale	Min-max	Mean±SD	Cronbach's Alpha
Timeline (acute/chronic)	6–28	17.15±4.43	0.738
Consequences	6–28	17.07±3.72	0.684
Personal control	13–30	20.23±3.11	0.535
Treatment control	11–25	16.92±2.76	0.455
Illness coherence	9–25	17.17±3.30	0.728
Timeline/cyclical	4–20	11.64±2.89	0.725
Emotional representations	6–26	17.32±3.47	0.679
Total – opinions about illness subscale	92–157	117.53±10.41	0.674
Psychological attributions	6–27	11.80±3.93	0.597
Risk factors	8–35	16.17±5.09	0.635
Immunity	2–10	4.07±1.99	0.352
Accident or chance	2–9	2.85±1.39	0.654
Total – illness causal subscale	19–72	35.24±10.31	0.817
Total – newcastle satisfaction with nursing care scale (NSNS)	28–95	63.81±12.18	0.933

Min: Minimum, Max: Maximum, SD: Standard deviation.

In terms of the Opinions About Illness Subscale, the total mean score was 117.53±10.41. Subscale averages were as follows: 17.15±4.43 for Timeline Acute/Chronic, 17.07±3.72 for Consequences, 20.23±3.11 for Personal Control, 16.92±2.76 for Treatment Control, and 17.17±3.30 for Illness Coherence. Additionally, the average score was 11.64±2.89 for Timeline/Cyclical and 17.32±3.47 for Emotional Representations (Table 3). The total mean score for the Illness Causal Subscale was 35.24±10.31. Subscale averages were as follows: 11.80±3.93 for Psychological Attributions, 16.17±5.09 for Risk Factors, 4.07±1.99 for Immunity, and 2.85±1.39 for Accident or Chance. The total mean score for the NSNS was 63.81±12.18 (Table 3).

When examining difference in Opinions About Illness Subscale scores based on patients' personal characteristics, statistically significant differences were found according to marital status (p=0.009), education level (p=0.000), employment status (p=0.019), and availability of health insurance (p=0.027) (p<0.05). Similarly, when analyzing Illness Causal Subscale scores based on personal characteristics, statistically significant differences were observed between according to income level (p=0.000), education level (p=0.063), and the type of clinic where the patient was hospitalized (p=0.014) (p<0.05). In this study, when the differences in NSNS scores were examined according to patients' personal characteristics, no statistically significant differences were found (Table 4).

A weak but statistically significant positive correlation was found between patients' NSNS total scores and their scores on the Illness Identity Subscale, specifically for the items "*I have experienced this symptom since the beginning of my illness*" (r=0.244; p=0.000) and "*This symptom is related to my disease*" (r=0.253; p=0.000) (Table 5).

Discussion

Illness perception influences not only the health problems individuals face but also their experiences during illness and their coping mechanisms. In this study, the total IPQ scores of patients in surgical and internal medicine clinics were found to be below average. Based on this result, it can be inferred that patients are aware of their health conditions, experience notable symptoms, and make moderate efforts toward recovery. It was also observed that patients most frequently experienced pain and fatigue, and they associated pain, fatigue, and loss of strength with their illness. In a study by Shakya et al.[13] in 2020 conducted at a tertiary hospital in Nepal, patients frequently reported symptoms such as headaches, fatigue, and dizziness. Similarly, in a study by Karabulutlu and Karaman[14] in 2015 on cancer patients, fatigue was reported as the most common symptom. In the study conducted by Yorulmaz et al.[15] in 2013 with patients diagnosed with diabetes, it was found that the most commonly experienced symptoms were fatigue, weakness, and weight loss. In line with these results, the present study also identified fatigue as the most frequently experienced symptom, with other symptoms aligning closely with findings from similar studies in the literature.

In this study, participants scored lowest on the Timeline/Cyclical subscale and highest on the Personal Control subscale of the IPQ – Opinions About Illness. Similar results were reported by Karabulutlu and Karaman[14] in 2015 in their study on cancer patients. These findings suggest that patients in internal medicine and surgical clinics tend to have positive attitudes and beliefs regarding their ability to control and monitor their illness, as well as the course of treatment and care. However, differing results are also reported in the literature.[13,16,17] For example, in the study by Shakya et al.[13] in 2020 conducted in Nepal, patients scored lowest on the Timeline/Cyclical dimension but highest on the Timeline (Acute/Chronic) dimension. In their study with hemodialysis patients, Özer et al.[16] in 2022 found that participants scored lowest in the Personal Control dimension and highest in the Consequences dimension. Similarly, in a study by Thomson et al.[17] in 2020 conducted in Scotland with individuals diagnosed with coronary artery disease, it was found that patients also had the lowest scores in the Personal Control dimension and the highest in the Consequences dimension. These findings suggest that the variations observed across studies may be attributed to differences in the disease characteristics of the patient populations.

In the present study, patients from internal medicine and surgical clinics who participated in the research had the lowest scores on the Illness Causal Subscale of the IPQ and the highest scores in the Risk Factors dimension. Similar findings were reported in the studies by Shakya et al.[13] in 2020 and Karabulutlu and Karaman[14] in 2015. In contrast, the study by Menekli et al.[18] in 2020 involving cancer patients showed that participants scored lowest in the Accident or Chance dimension and highest in the Psychological Attributions dimension. These results suggest that the patients in the current study believed risk factors played a significant role in the development of their illness, while the accident or chance factor was perceived to have little influence.

Patient satisfaction with nursing care in the current study was found to be at a moderate level. Similar results were reported in various studies. For example, Hajy et al.[19] in 2024 investigated patient satisfaction with nursing care in Iraq; Arli[20] in 2023 examined the relationship between surgical patients' awareness of individualized care and their satisfaction with nursing care in Türkiye; and Dinsa et al.[21] in 2022 found that patient satisfaction levels in Ethiopia were at a moderate level. Although some studies in the literature support the findings of this study, others have reported differing results. For instance, Tomaszewska et al.[22] in 2023 conducted a study in Poland evaluating nursing care satisfaction among patients hospitalized in a cardiology ward, and Rodríguez-Herrera et al.[23] in 2021 found high levels of nursing care satisfaction among cancer patients in Mexico. In the study by Özşaker et al.[24] in 2021, which examined the perception of nursing care and satisfaction among surgical patients, and in the study by Bahçecioğlu et al.[25] in 2021, which assessed nursing care satisfaction and readiness for discharge among patients hospitalized in internal medicine clinics, patient satisfaction levels were found to be high. The literature suggests that differences in findings

Table 4. Distribution of patients' scores on the illness perception questionnaire (IPQ) and newcastle satisfaction with nursing scale (NSNS) by sociodemographic characteristics (n=255)

Sociodemographic characteristics	IPQ – opinions about illness subscale Mean±SD	IPQ – illness causal subscale Mean±SD	Newcastle satisfaction with nursing scale (NSNS) Mean±SD
Gender			
Female	118.48±10.56	33.86±9.55	63.20±11.84
Male	116.12±10.07	37.11±11.07	64.71±12.67
Statistical analysis	t=1.783	t=-2.163	t=-0.970
	p=0.610	p=0.152	p=0.249
Marital status			
Married	118.60±9.55	35.36±9.91	63.24±12.46
Single	114.25±12.20	34.90±11.50	65.52±11.18
Statistical analysis	t=2.921	t=0.304	t=-1.289
	p=0.009	p=0.516	p=0.155
Income level			
Low	121.84±19.72	47.30±17.76[a]	67.92±11.55
Middle	117.68±9.70	34.53±9.84[b]	63.89±12.17
High	117.68±9.90	34.95±8.89[b]	63.69±12.31
Very High	112.78±7.71	33.42±8.44[b]	60.89±12.10
Statistical analysis	F=2.098	F=6.803	F=0.860
	p=0.101	**p=0.000**	p=0.462
Education level			
Literate	123.76±13.26[a]	36.69±11.31	62.10±12.41
Primary-secondary education	118.98±9.14[ab]	37.53±9.44	64.92±13.80
High school	116.53±8.97[bc]	34.48±10.92	63.70±11.14
Undergraduate/graduate	112.84±9.72[c]	32.80±8.66	63.94±11.98
Statistical analysis	F=9.657	F=2.462	F=0.435
	p=0.000	**p=0.063**	p=0.738
Working status			
Not working due to illness	116.98±10.09[a]	35.13±13.83	63.96±12.68
Not working (other reasons)	118.91±10.52[ab]	35.70±9.62	63.20±12.45
Working	114.34±9.85[a]	34.12±9.49	65.31±10.93
Statistical analysis	F=4.038	F=0.472	F=0.594
	p=0.019	p=0.624	p=0.553
Health insurance			
Yes	117.20±9.94	35.11±10.07	63.44±12.15
No	123.14±16.06	37.57±14.04	70.07±11.32
Statistical analysis	t=-2.086	t=-0.867	t=-1.990
	p=0.027	p=0.084	p=0.527
Clinic type			
Internal medicine clinic	118.61±10.82	36.75±11.03	62.27±12.50
Surgical clinic	116.05±6.69	33.21±8.89	65.92±11.44
Statistical analysis	t=1.952	t=2.740	t=-2.382
	p=0.096	**p=0.014**	p=0.410
Previous hospitalization at this hospital			
Yes	119.87±10.91	34.12±9.42	64.01±12.28
No	116.36±9.99	36.25±10.95	61.75±11.54
Statistical analysis	t=2.560	t=-1.197	t=1.021
	p=0.301	p=0.173	p=0.921
Medication use			
Using	118.89±10.60	35.45±10.72	64.08±11.54
Not using	114.67±9.45	34.81±9.43	63.24±13.47
Statistical Analysis	t=3.070	t=0.459	t=0.512
	p=0.331	p=0.152	p=0.111

[a-c]: No difference between groups with the same letter. SD: Standard deviation, t: Student's t-test, F: One-way analysis of variance (ANOVA).

Table 5. Correlation between illness perception questionnaire (IPQ) subscales and newcastle satisfaction with nursing scale (NSNS) scores

	Illness identity subscale (I have experienced this symptom since the beginning of my illness)	Illness identity subscale (This symptom is related to my disease)	Opinions about illness subscale	Illness causal subscale
Newcastle satisfaction with nursing scale (NSNS) total score				
r	0.244	0.253	-0.021	-0.119
p	0.000*	0.000*	0.737	0.060

*: p<0.05. r: Pearson correlation coefficient.

across studies may be influenced by variations in patient populations and cultural contexts, as well as by the multidimensional nature of patient satisfaction.

In the present study, it was determined that the mean score of the Opinions About Illness subscale of the IPQ varied depending on the marital status of patients receiving care in internal medicine and surgical services. It was found that Opinions About Illness subscale scores were higher among patients who were married. However, similar studies in the literature have reported different results. In the study by Okur et al.[26] in 2023 involving elderly individuals with chronic diseases, no significant difference was found between IPQ scores and marital status. In the study by Karabulutlu and Karaman[14] in 2015 conducted with cancer patients, a significant difference was observed only in the Consequences dimension of the Opinions About Illness subscale. It has been suggested that differences in study results on this subject may be due to the fact that individuals' perceptions of illness can be influenced by a variety of factors.

In the present study, Opinions About Illness subscale scores differed significantly by education level, with higher scores among literate patients. Similarly, Karagülle and Çiçek[27] in 2020 found a significant relationship between education level and IPQ scores in patients with chronic obstructive pulmonary disease (COPD), whereas Kahyaoğlu Süt[28] in 2017 found no such association. Education level, shaped by social and cultural factors, may influence illness perception, although it is likely only one of several contributing factors. Additionally, the subscale scores were significantly higher among patients who were not working for reasons unrelated to illness and those without health insurance. It is possible that limited access to reliable health information may lead uninsured individuals to develop misconceptions about their illness.

In this study, the mean score of the IPQ Illness Causal Subscale differed significantly by income level, with higher scores observed among patients with lower income. Similarly, Karagülle and Çiçek[27] in 2020 found that income level influenced illness perception in patients with COPD. Limited access to healthcare services and greater exposure to risk factors may lead low-income individuals to be more aware of their symptoms and to perceive their illness more intensely. Additionally, Illness Causal Subscale scores were significantly higher among patients with primary or secondary education. In line with this, Boonsatean et al.[29] in 2016 found that education level impacted illness perception, with higher-educated patients demonstrating a better understanding of their condition. Individuals with lower levels of education may develop inaccurate beliefs about their illness, potentially leading to unnecessary anxiety.

The current study also found that the average score on the Illness Causal Subscale was significantly higher among patients hospitalized in internal medicine wards. This result may be attributed to the fact that patients in internal medicine units typically have chronic or more severe illnesses and tend to experience longer hospital stays. Additionally, their higher illness causation scores may be explained by more frequent encounters with disease complications, greater health awareness and knowledge, and a heightened ability to recognize and interpret their symptoms.

In the present study, no significant differences were found in NSNS scores based on the personal characteristics of the patients. However, the literature reports varying results on this subject. For example, in 2024, Hajy et al.[19] in Iraq identified a significant relationship with marital status; Alhowaymel et al.[30] in 2022 in Saudi Arabia and Tomaszewska et al.[22] in 2023 in Poland found significant differences

based on educational status; and Karaca and Durna[9] in 2017 reported significant relationships with both marital status and education level. In Cerit's[7] in 2016 study, a significant difference was observed based on educational level, while no significant relationships were observed between patient satisfaction and gender, clinic type, or age. It is suggested that patient satisfaction may be influenced not only by personal characteristics but also by factors such as the quality of healthcare services, previous hospital experiences, nurses' communication skills, and patient expectations.

In the present study, a weak, positive, and statistically significant relationship was found between patients' satisfaction with nursing care and their Illness Identity perception (specifically "*I have experienced this symptom since the beginning of my illness*", and "*This symptom is related to my disease*"). As illness perception increased, so did satisfaction with nursing care. In contrast, Al-Zaru and Al-Dwairi[31] in 2023 found a negative relationship between satisfaction and illness perception in patients with coronary heart disease in Northern Jordan. Meanwhile, Iskandarsyah et al.[32] in 2013 in Indonesia reported that information satisfaction among breast cancer patients was associated with more positive illness perceptions. Although limited studies exist, illness perception appears to be one of many factors influencing patient satisfaction. Other important factors include communication, quality of service, waiting times, physical conditions, patient rights, access to care, staff professionalism, and technological infrastructure.[33] Since these variables were not assessed in the present study, future research should consider them to provide a more comprehensive understanding of patient satisfaction.

Limitation

This study has two principal limitations. Firstly, the findings cannot be generalized to the entire patient population, as they are limited to individuals receiving inpatient care in the internal medicine and surgical departments of the hospital where the research was conducted. Secondly, several factors known to influence patients' perceptions of illness—such as communication processes, quality of services, waiting times, physical environment, patient rights, accessibility of care, staff professionalism, and technological infrastructure—were not assessed within the scope of this study.

Conclusion

This study found that the illness perceptions of patients receiving inpatient care in internal medicine and surgical units were below average, and their satisfaction with nursing care was at a moderate level. A weak but positive relationship was observed between illness type and nursing care satisfaction. Additionally, the study concluded that personal characteristics did not affect nursing care satisfaction. Based on these findings, it is recommended to conduct studies aimed at enhancing patients' knowledge about their symptoms and treatment options, as well as to develop communication strategies that facilitate regular feedback to better understand patients' concerns and needs. Further research on this topic by healthcare professionals is also encouraged. Identifying patients' perceptions of illness can help healthcare professionals provide more effective care, improve communication, increase patient satisfaction, and enhance treatment outcomes. It can also help patients feel understood and supported, prompt treatment adherence, and lead to greater satisfaction with their overall healthcare experience. Assessing satisfaction with nursing care is equally important, as it reflects patients' trust in the healthcare institution and can positively influence the motivation of healthcare staff. Therefore, identifying and evaluating patient feedback is essential for the continuous improvement of healthcare services.

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