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Satisfaction with nursing care and its related factors in patients with COVID-19: A descriptive correlational study

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Abstract:

BACKGROUND: Patients' satisfaction is a fundamental factor in the quality of nursing care. The emergence of the novel Coronavirus Disease 2019 (COVID-19) and the highly contagious virus can affect nursing care by increasing the number of care-seekers. This study aimed to determine the patients' satisfaction and related factors in patients with COVID-19 hospitalized in Taleghani Hospital, Urmia-Iran, in 2020.

MATERIALS AND METHODS: This descriptive, correlational study was conducted on 196 patients with COVID-19 hospitalized in Taleghani Hospital, Urmia. Purposive convenient sampling was used to recruit participants. Study participants completed Patient Satisfaction Instrument and demographics questionnaires. Data were analyzed with the SPSS software version 25.0.

RESULTS: The majority of patients (68.9%) were moderately satisfied with nursing care. Based on Pearson Correlation Analysis, only residential status had a significant inverse relationship with satisfaction level in patients with COVID-19 ($r = -0.0238$, $P = 0.001$).

CONCLUSIONS: The patients' satisfaction with nursing care was mostly at a moderate level. Thus, there is a need to educate health personnel and nurses in particular and motivate them to have active participation in achieving patients' satisfaction with COVID-19. Notably, only the institutes that take patients' satisfaction as a top priority can succeed in a competitive market of health services.

Keywords:

COVID-19, nurses, nursing care, pandemics, patient satisfaction

Introduction

Patients' satisfaction with care service indicates that the health personnel finds it an incumbent upon themselves to make sure of patients' satisfaction.^[1] Patients' satisfaction is a key factor of the quality of health cares and one of the predictors in measuring health outcomes and the quality of cares in a health center.^[2]

Patients' satisfaction is the outcome of a complicated set of factors and achieving it

entails coordination in different aspects of services such as nursing, medicinal, and backup services.^[3] The satisfaction level is defined as the difference between what is expected and what is realized.^[4] Patients tend to accept a treatment program more easily when their satisfaction is at a desirable level.^[5] In fact, the higher satisfaction in patients, the faster mental and physical recovery in them. On the other hand, dissatisfaction increases irritability and anxiety in patients, which prolongs recovery and hospitalization. Consequently, medication cost increases, and more beds remain occupied.^[6]

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The patient's satisfaction level is measured based on several factors that are mostly reported by the patient. Based on satisfaction level, researchers can introduce new policies and plans and improve patients' satisfaction level and achieve better outcomes.^[7] These factors cover all services by health personnel, including nurses and represent the attitude of patients about general appearance, cleanliness, peace, and waiting time.^[2] Patients' satisfaction is affected by mental perception, patients' awareness of their rights, personnel's communicational abilities to establish a mental relationship with patients, and several other factors such as cultural, social, economic, and personality background. In addition, demographical factors such as age, gender, and education level can affect the satisfaction level.^[8] Lee *et al.* in Canada showed that there is a significant relationship between age and education and satisfaction level in patients; so that satisfaction level in educated patients was less than that in patients with lower education level.^[9]

Studies have shown that nurses with higher professional commitment and communicational skills achieve a higher level of patient satisfaction. In addition, where nurses are given more independence, have a stronger role in decision-making, and cooperating with other health personnel, they achieve a higher level of patient satisfaction.^[10,11] Patient satisfaction measurement is a complicated and multifaceted phenomenon, including, among many, relationships with medical personnel, physical environment, and specification of health-care organization.^[12]

COVID-19 is a newly emerging viral respiratory disease with a rapid spread worldwide, which has affected the quality of nursing care.^[13] The COVID-19 pandemic, also known as the coronavirus pandemic, was first identified in December 2019 in Wuhan, China. Now, it has spread all over the world.^[14] It is a serious concern for health-care personnel including nurses.^[15,16] Studies have shown that the disease has affected nurses' mental and spiritual conditions in nurses which can have a negative effect on the quality of service.^[17,18]

Objective

Given that COVID-19 is an unknown and highly contagious disease and has inflicted a large number of individuals, it can affect nursing care, and the high bed-occupancy rate can cause a heavy financial pressure on the health-care system. During the COVID-19 pandemic, nurses are faced with a heavier workload. Taking into account the importance of nursing cares in terms of the patients' outcomes, having a deeper knowledge about patient's problems, and taking measure to improve their satisfaction and the paucity of studies on this field, the present study aimed to determine the

patients' satisfaction and its related factors in patients with COVID-19. Our research questions were:

1. What is the patient's satisfaction level of patients with COVID-19 from nursing care?
2. What factors do affect the patient's satisfaction in patients with COVID-19?

Materials and Methods

Study design and setting

This descriptive correlational study was conducted in Taleghani Medical and Educational Center in Urmia, a city in the Northwest of Iran, in 2020.

Study participants and sampling

Our target population was patients with COVID-19 in clinical wards of Taleghani Hospital in Urmia. Based on the previous study,^[19] the patient satisfaction ratio ($P = 0.85$), maximum error level ($d = 5\%$), and confidence level ($1 - \alpha = 0.95$) using the following formula power, the sample size was estimated, 196 patients. The inclusion criteria included: willingness to participate in the study; age between 18 and 60 years; being conscious and oriented, having the ability to read and write; having no history of hearing, vision problems; having SPO₂ >90%, and having no history of mental disorder. Unwillingness to stay in the study was considered the exclusion criteria. We used convenient purposive sampling to recruit patients with COVID-19 who were hospitalized in Taleghani Hospital.

Data collection tool and technique

Data were collected using a two-part questionnaire. The first part was related to demographic information, including age, gender, marital status, education level, occupational status, Residential status, level of income, and smoking. The second part was Patient Satisfaction Instrument (PSI), which is a self-reported instrument. PSI evaluates the patients' attitudes toward nurses and nursing care. The instrument was developed by Hinshaw and Atwood (1982),^[20] consists of 25 items, with a 5-point Likert scale, including totally agree (Score 5), agree (Score 4), I am not sure (Score 3), disagree (Score 2), and totally disagree (Score 1) with a minimum score of 25 and a maximum score of 125. A score <78 indicates dissatisfaction, between 78 and 104 is the moderate satisfaction and more than 104 is complete satisfaction. The instrument is divided into three subscales: (a) Technical-professional care (7 items), (b) trust (11 items), and (c) patient education (7 items).^[20] The first subscale includes items referring to technical skills, knowledge base, and carefulness. The items in the second subscale measure the patient-nurse relationship and the humanity of the nurse. The items related to patient education measure patient satisfaction with the nurses' teaching and supervision skills and

their informativeness. In the technical-professional subscale, a score below 21 is dissatisfaction, between 21 and 28 is moderate satisfaction, and a score above 28 is complete satisfaction. In the subscale of trust, a score below 39 is dissatisfaction, between 39 and 52 is moderate satisfaction, and a score above 52 is complete satisfaction. Finally, in the patient education subscale, a score of <18 is dissatisfaction, between 18 and 24 is moderate satisfaction, and score of more than 24 is complete satisfaction. Sensitivity of PIS is 80%^[21] and Jagoda *et al.* used Cronbach's alpha to confirm the reliability of the instrument ($\alpha = 0.88$).^[22] The validity of this instrument was determined by the content validity. For this purpose, the text of the questionnaire in Persian and English was provided to 10 faculty members of the School of Nursing and Midwifery of Urmia University of Medical Sciences. Then, their opinions were collected and their comments were given on the questionnaire. Moreover, the validity and reliability of the questionnaire had been confirmed by previous studies in Iran.^[23-24] Test and re-test method was used to confirm the reliability of the questionnaire and the correlation coefficient was 0.92.

For data collection, we visited the Taleghani Hospital of Urmia and obtained permission from the relevant authorities, and discussed our study process and purpose with the manager. Taking into account that the participants had different levels of education, and to improve the reliability of the data, the questionnaire was filled out based on direct interviews. The interviewer was a nurse who works in the COVID-19 ward of Taleghani Hospital. The executive researcher visited the wards in different work shifts for recruiting the patients that met the inclusion criteria. In this stage, she used convenient purposive sampling to recruit the patients with COVID-19 who were hospitalized in Taleghani Hospital. Then, she invited them to participate in the study. If the patients with COVID-19 agreed to participate in the study, she explained to them the purpose, stages and duration of the study and answered their concerns and questions. She also assured them about their privacy and confidentiality of their information. Next the questionnaire was completed by one of the researchers. During data collection, the research team provided safety measures such as washing and disinfecting hands before and after visiting each patient, wearing an N95 mask, gloves, gown, hat, and shoe cover. Sampling took 2 months, and the third researcher collected the data of 196 patients with COVID-19 [Figure 1].

Ethical consideration

We obtained permission from the research and ethics committee of Urmia University of Medical Science (IR. UMSU.REC.1399.136).

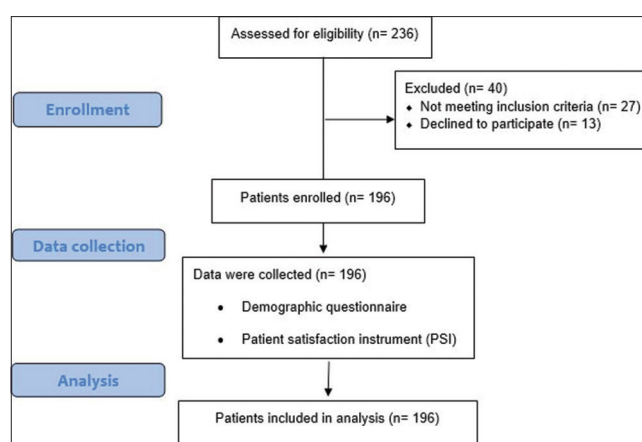


Figure 1: Flow diagram for study participants

Data analysis

All 196 patients with COVID-19 were entered into the analysis. We used the Kolmogorov–Smirnov test to determine the normal distribution of data. Data analysis was performed with IBM SPSS Statistics for Windows, version 25 (IBM Corp., Armonk, N.Y., USA) by using the descriptive and inferential statistics. In descriptive statistics, we used frequency and percentage for the qualitative variables and mean and standard deviation for the normal quantitative variables. In inferential statistics, we used the Pearson correlation test to assess the correlation between patient satisfaction and related factors in patients with COVID-19.

Results

The results showed that the mean age of the patients was 46.19 ± 10.29 . More than one-half of the patients were men (58.7%) and 41.3% were women. In addition, more than one half of the patients (52%) had a university degree, and the majority (61.2%) were officially employed. The majority of the participants had enough income (77%), and also, most of the participants were married (85.7%). Notably, most of the patients were not smokers (63.8%) and 6.7% lived in the city [Table 1].

Based on Pearson correlation analysis, residential status had a significant inverse relationship with satisfaction level in patients with COVID-19 ($r = -0.0238$, $P = 0.001$). Moreover, there was no significant relationship between patient satisfaction with nursing care and other demographical variables [Table 1]. Furthermore, findings showed that 19.9% of the participants were highly satisfied with nursing care. In addition, the majority of patients (68.9%) were moderately satisfied with nursing care, and 11.2% were dissatisfied [Figure 2]. Regarding patients' satisfaction, the findings showed that the majority of the patients were satisfied in terms of technical-professional (68.9%), trust (59.2%), and patient education (58.2%) [Table 2].

Discussion

The majority of the patients with COVID-19 in the study were moderately satisfied with nursing care. Among the demographical variables, only residential status had a significant inverse relationship with satisfaction level in patients with COVID-19.

Consistent with our study, Akbulut *et al.* showed that patients' satisfaction with nursing care in oncology wards was moderate. In addition, age, gender, education level, marital status, and income were not significantly related to patients' satisfaction, but the residential status was not significantly associated with patients' satisfaction,^[25] which this finding is against our result. Karaca and Durna in Turkey showed that most patients were highly satisfied with the services provided

by nurses. Furthermore, married patients with high education levels, patients with good hygiene conditions, and patients who had been hospitalized more than once were more satisfied with nursing services.^[26] Owaiddh *et al.* in Saudi Arabia showed that most patients had a high satisfaction concerning health-care services. In addition, male patients and those with higher education levels were more satisfied.^[2] Patients' satisfaction in different countries can vary due to various factors, such as available facilities. Moreover, the health system's attention to the factors that might create dissatisfaction in patients and attempts to solve them is a crucial feature of the developed countries' health system. Among the problems that might negatively affect the quality of services is the low nurse/patient ratio and heavy workload on patients.^[27] Notably, these findings might be rooted in low expectations of patients with health-care services. Consistent with our findings, Kol *et al.* indicated that the majority of patients were moderately satisfied with nursing care. They reported no significant relationship between gender, education level, and marital status, and patients' satisfaction.^[28] Lee *et al.* in Canada showed that most participants were desirably satisfied with services provided,^[9] which is consistent with our findings. Dzomeku *et al.* in Zambia indicated that the patients' satisfaction with nursing

Table 1: Demographic characteristics and their correlation with patient satisfaction

Variable	Frequency, n (%)	Result (P, r)
Gender		
Female	81 (41.3)	0.298*, -0.075
Male	115 (58.7)	
Occupational status		
Employed	120 (61.2)	0.795*, -0.019
Unemployed	70 (35.7)	
Inactive	6 (3.1)	
Education level		
Illiterate	15 (7.7)	0.900*, -0.009
Elementary	17 (8.7)	
Secondary	20 (10.2)	
High school	42 (21.4)	
University	102 (52)	
Marital status		
Unmarried	28 (14.3)	0.188*, -0.094
Married	168 (85.7)	
Residential status		
Urban	121 (61.7)	0.001*, -0.238
Rural	75 (38.3)	
Smoking		
Yes	71 (36.2)	0.756*, 0.022
No	125 (63.8)	
Income level		
Not enough	24 (12.2)	0.380*, 0.063
Enough	151 (77)	
More than enough	21 (10.7)	
Age, mean±SD	46.39±10.29	0.250*, -0.083

*Pearson correlation. SD=Standard deviation

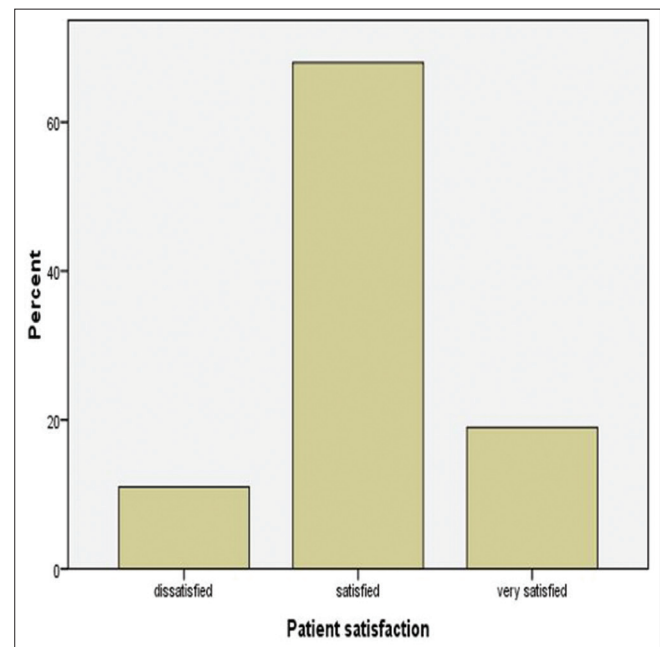


Figure 2: The patients' satisfaction with nursing care

Table 2: Satisfaction with nursing care in patients with COVID-19 in the study

Patient satisfaction	Dissatisfied, n (%)	Satisfied, n (%)	Very satisfied, n (%)
Technical-professional care	42 (21.4)	135 (68.9)	19 (9.7)
Patient education	18 (9.2)	114 (58.2)	64 (32.7)
Trust	30 (15.3)	116 (59.2)	50 (25.5)
Total score	22 (11.2)	135 (68.9)	39 (19.9)

care was at a low level,^[29] which does not confirm our results.

The results showed no significant correlation between age and patients' satisfaction; however, Azizi *et al.* (2018) indicated that patients' satisfaction was significantly related to age, which the higher age, the higher patients' satisfaction.^[30] Chan and Chau in Hong Kong showed that aged patients were more satisfied with nursing care.^[31] Consistent with our finding, Varol *et al.* (2013) and Alsaqri *et al.* showed that there was no significant relationship between the satisfaction and gender, which indicates that rather than gender, it is the quality of care that determines the level of patients' satisfaction.^[32,33] On the other hand, Alhusban and Abualrub showed that the satisfaction level with health care was higher in women compared to men.^[34] However, Milutinović *et al.* and Shinde and Kapurkar showed that men had higher satisfaction than women regarding received nursing care.^[35,36] While cultural specifications can be mentioned as a reason for the inconsistent findings, women's higher concern about health and hygiene and higher anxiety in this regard are also notable.

The findings revealed that the highest satisfaction level was related to technical-professional care, and the lowest satisfaction level was associated with patient education. This finding is consistent with Wolf *et al.*^[37] Patient education is an important element of nursing care, and it should be provided as continuous service from the admission to the discharge.^[38]

One of the limitations of this study was the presence of environmental, behavioral, and psychosocial factors that can influence the patients' satisfaction, and the researcher has no control over them. A single measurement method that involved a self-report questionnaire as the sole measurement method was another limitation of this study. The study was conducted in a single public hospital in Iran. Therefore, the results cannot be generalized to all hospitals. Future studies should include more than one hospital in both the private and public sectors, and the nursing care provided in private and public hospitals should be compared. Moreover, the study population consisted only of hospitalized patients. Further studies are required to assess satisfaction with nursing care in COVID-19 outpatients.

Conclusions

The patients' satisfaction with nursing care was moderate. Therefore, hospital personnel's education and nurses in particular and motivating them to have active participation in winning patient's satisfaction should be a top priority for hospital managers. Notably, the competitive health care services market requires that

health institute take patients' satisfaction as one of their top priorities. Therefore, the results support the necessity of evaluating the patient satisfaction with nursing care to develop and improve nursing care.

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Conflicts of interest

There are no conflicts of interest.

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