

Patients' Satisfaction with Humane Care in Critical Care Units

Abstract

Background: It is important to assess the provision of care in a humane framework to achieve patients' holistic needs in Critical Care Units (CCUs) and to promote health outcomes. The aim of the current study was to determine patients' satisfaction with humane care in CCUs. **Materials and Methods:** In the current descriptive-analytical study, data were collected from 225 patients admitted to the CCUs of seven teaching hospitals in Lorestan Province, Iran, in 2017. The Persian version of the Revised Humane Caring Scale (P-RHCS) was used in this study. Data were analyzed using descriptive statistics and inferential statistics (independent *t*-test and one-way ANOVA). **Results:** The mean (SD) overall score of the P-RHCS was 4.61 (0.53), which indicated that patients were highly satisfied with humane care. The patients were most satisfied with "professional performance" [mean (SD) 4.72 (0.60)] and "interdisciplinary collaboration" [mean (SD) 4.72 (0.65)], and the least satisfied with "awareness of and contribution to self-care" [mean (SD) 4.23 (0.78)]. The findings revealed that patients' satisfaction with humane care depends on their demographic and clinical characteristics. **Conclusions:** Generally, patients were satisfied with humane care provided in CCUs; however, it is recommended that nurses' skills be reinforced, especially regarding information provision and effective communication with patients to improve health outcomes.

Keywords: Critical care, humanism, nursing care, patient satisfaction

Introduction

Critical Care Units (CCUs) are essential for patients in serious conditions and near to death.^[1] These wards are places where lives are saved, but they are also very hostile and unpleasant places where patients face serious diseases in adverse environmental conditions.^[2] Patients hospitalized in CCUs are exposed to different stressors such as sleep deprivation, noise, constant lighting, thirst, separation from their family, and negative emotions like fear and sorrow.^[3,4] They also undergo painful medical procedures and experience restrictions such as different tubing types (nasal, gastric, and tracheal tubing), drains, and arterial-venous lines.^[5] These problems clearly affect the quality of treatment and can cause serious complications and prolong hospitalization.^[6] To reduce these complications, highlighting the patients' needs and providing holistic and humane care are considered essential. In addition to emphasis on symptoms of disease and its management, nurses must take into account the provision of psychological support to

patients and their families.^[7] To improve the quality of care and reduce undesirable behaviors in CCUs, the assessment of patients' satisfaction with humane care is an important step.

Patients' satisfaction is defined as their perceptions of care quality,^[8] and the health care quality can be determined by its assessment.^[9] A review of the literature shows that the assessment of patients' satisfaction is necessary to achieving their needs and expectations.^[10] Zabolypour *et al.*^[11] showed that patients were most satisfied with technical-professional care and were least satisfied with patient education. In a study by Gholjeh *et al.*,^[12] patients reported that most nurses paid more attention to the technical-professional dimension of care and less attention to the dimension of trust. From the results of these studies, it can be concluded that care is presently dependent on patients' physical dimension more than their mental-emotional dimension. However, communication accompanied with respect, attention to patients' spiritual-mental condition, and attention to patients' holistic

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needs are indicators of patients' satisfaction with care and are in accordance with a humane care framework.^[13] The term humane is defined as the willingness to treat human beings with kindness, compassion, and benevolence.^[14] This definition shows that humane care is the basis of ethical behaviors and an essential need in health care systems. In fact, this approach facilitates holistic care, and the maintenance and promotion of human dignity by identifying the unique attributes of patients.^[7] However, it seems that modern nursing practice is becoming professionalized and that sympathy and kindness are less emphasized.^[15] In other words, nurses working under pressure in a technological and busy environment are not able to communicate with their patients in a humanistic way.^[13] In fact, they are facing the risk of working in a mechanical way. However, critically ill patients need nurses who support their physiological functions and safety, and help them use all accessible resources for recovery and survival. They need nurses who have communication abilities such as interest, acceptance, empathy, and touch.^[16] With regard to the importance of humane care and the pressing needs of patients hospitalized in CCUs for humane behaviors, the assessment of their satisfaction is important.

A review of the literature in Iran indicated that most studies on patient satisfaction were basically conducted in general care. These studies were carried out using tools such as the Patient Satisfaction Instrument,^[17] the Patient Satisfaction with Nursing Care Quality Questionnaire,^[18] and the Patient Satisfaction Questionnaire^[19] that were not specifically related to humane care. Most of the studies on humane approaches were qualitative^[20] and quantitative studies conducted with instruments like the Caring Dimension Inventory,^[21] the Caring Behavior Inventory,^[22] and the Caring Assessment Instrument (Care-Q)^[23] and have only assessed people's perceptions of humane care. However, the Revised Humane Caring Scale (RHCS) was devised to measure patients' satisfaction with humane care and used in studies conducted in Finland^[9] and Singapore.^[13] Thus, the aim of the current study was to assess the patients' satisfaction with humane care in CCUs and the RHCS was used to collect data. The research questions were: (1) what are patients' levels of satisfaction with humane care in CCUs? (2) what is the relationship between demographic and clinical characteristics of patients and scores of their satisfaction with humane care?

Materials and Methods

This descriptive-analytical study was conducted on patients in intensive care units (ICUs), CCUs, post-ICUs, and post-CCUs of seven teaching hospitals in July–October 2017. Sampling was performed using a nonprobability quota method in which the hospitals were taken as classes and the admission units as subclasses. The participants were selected from each subclass in proportion to the unit's size until the required sample size was reached. The sample

size was estimated at 225 participants considering a test power of 80%, type I error of 5%, confidence interval of 95%, and a z-score of 1.96. The inclusion criteria included age of 18 and above, hospitalization in one of the units for at least 3 days, no history of mental and psychological disorders, no problem in establishing contact, and alertness and willingness to participate in the study.

The study tool was the Persian version of the RHCS (P-RHCS). The scale consists of 38 items classified into six subscales including professional performance (15 items), awareness of and contribution to self-care (10 items), recognition of physical needs (3 items), humane resources (3 items), pain and fear (4 items), interdisciplinary collaboration (3 items), and overall outcomes of care (3 items). Each item is scored on a five-point Likert scale ranging from 5 to 1 (Totally agree = 5, Partially agree = 4, Cannot say = 3, Partially disagree = 2, Totally disagree = 1). Scores 1 and 2 indicate the lowest satisfaction, a score of 3 indicates moderate satisfaction, and scores 4 and 5 indicate the highest satisfaction.^[8]

In Finnish and Singaporean studies in which RHCS was used, the alpha coefficient of the whole scale was higher than 0.70.^[24-26] To conduct this research, psychometric evaluation of the RHCS was performed in a previous study^[27] and the results indicated the acceptable validity and reliability of the scale and its applicability to CCU patients. The Content Validity Index was estimated to be 0.93 for the whole scale and 0.80 for each item. In the Confirmatory Factor Analysis, a model of 42 items was confirmed with acceptable fit indices, including the Comparative Fit Index = 0.88, Goodness of Fit Index = 0.79, Incremental Fit Index = 0.88, Tucker–Lewis Index (TLI) = 0.86, Root Mean Square Error of Approximation = 0.07, Chi-square (X^2) = 2282.21, degrees of freedom (df) = 764, and $p < 0.001$. The Cronbach's alpha of the whole scale was 0.96, and that of its subscales ranged between 0.70 and 0.94. The Intraclass Correlation of each item ranged between 0.47 and 1.

The current study was conducted after obtaining permission from the ethics committee and the research deputy of Lorestan University of Medical Sciences, Iran. Patients were provided with information on the study's significance and were assured of the confidentiality of their information and the possibility of dropping out of the study whenever they want. During the patients' critical care and after obtaining their written consent, the questionnaire was distributed among them. For literate patients, it was completed through self-reporting, and for illiterate patients, it was completed through an interview. The data collection questionnaire consisted of a demographic and clinical information form, the P-RHCS (41 items), and the patients' overall assessment of care provided by health care personnel. In the third part of the questionnaire, each item was scored using a scale ranging from 1 to 10 (score 1 means very poor and score 10 means excellent).^[13]

After collecting and entering data into SPSS software (version 22.0; IBM Corp., Armonk, NY, USA), descriptive statistics (mean, standard deviation, frequency, and percentage) were used to achieve the aims of the study. In addition, inferential statistics (independent *t*-test and one-way ANOVA) were used to analyze the relationship between demographic and clinical characteristics of participants, and their satisfaction with humane care. Findings were considered significant at $p < 0.05$.

Ethical consideration

The present research was approved by the ethics committee and research deputy of Lorestan University of Medical Sciences (LUMS.REC.1396.245). The patients were given enough information about the purpose and significance of the study, and written informed consent was obtained from them. For illiterate people, the context of the written consent form was read by the researcher, and then, their fingerprints were obtained. The researcher reassured participants that their answers had no effect on the treatment or care quality provided by staff and the data of the study would remain confidential.

Results

The present study was conducted on 225 patients and all of them completed the questionnaire (response rate = 100%). Most participants were men (134; 59.60%). The minimum and maximum age of the participants was 18 and 95 years with a mean (SD) age of 59 (14.27). The mean (SD) duration of hospitalization was 3.80 (1.50) days and it ranged between 3 and 17 days. The demographic and clinical information of the participants are provided in Table 1.

Based on the findings presented in Table 2, the mean (SD) score of patients' satisfaction with humane care (overall P-RHCS) was 4.61 (0.53). The participants were most satisfied with "professional performance" [mean score: 4.72 (0.60)] and "interdisciplinary collaboration" [mean score: 4.72 (0.65)] and least satisfied with "awareness of and contribution to self-care" [mean score: 4.23 (0.78)]. In addition, the patients were satisfied with care provision by staff during their hospitalization. The mean (SD) score of participants' satisfaction with doctors, nurses, and cleaning staff were 9.37 (1.65), 9.42 (1.32), and 9.36 (1.45), respectively.

In this study, humane care had a significant relationship with hospitalization duration ($p = 0.001$), living status ($p = 0.046$), education status ($p = 0.001$), admission type ($p = 0.034$), reason for admission ($p = 0.032$), and ward type ($p = 0.001$). Increased hospitalization period and living alone reduced patients' satisfaction with humane care. Patients with higher education level and those who were hospitalized preplanned and for treatment reported more satisfaction. Patients had the most satisfaction with the post-ICU and the least satisfaction with the ICU. There was no statistically significant difference between

the patients' satisfaction with humane care and their age ($p = 0.074$), gender ($p = 0.539$), and employment status ($p = 0.105$) [Table 3].

Discussion

The present study results indicated that patients' satisfaction with the provision of humane care during their hospitalization was at a desirable level. The study by Mäntynen *et al.*,^[28] conducted through two successive surveys in Finland between the years of 2008–2009 and 2010–2011, revealed high levels of patients' satisfaction with provided services, and this was in line with the current study results. In addition, the findings of Kvist *et al.*^[25] during the years 2008–2009 in Finnish hospitals indicated patients' satisfaction with the professional and humane care provided by health staff. These results show that patients received high-quality professional care and nurses have sympathetically and humanely performed their serious roles, which is providing services to afflicted patients despite all the existing problems. However, Goh *et al.*,^[13] in a study in Singapore, showed a moderate level of satisfaction with humane care among patients in a tertiary hospital. The lower level of patients' satisfaction in this study may be due to the study environment (a tertiary hospital) and the study participants (patients of different ethnicities with different caring needs). As mentioned in the study by Goh *et al.*,^[13] the Chinese patients had the lowest level of satisfaction with humane care.

The findings revealed that patients were most satisfied with "professional performance" and "interdisciplinary collaboration." These results are in accordance with findings of Finnish studies during the years 2008–2011 in which professional performance and interdisciplinary collaboration were the first and second dimensions patients were most satisfied with.^[28] The high rate of satisfaction with professional performance can be due to the controlling and checking of this dimension by managers, and the high significance of these caring behavioral groups from nurses' perception and their skill in performing such supervisory behaviors.^[29] In these studies, staff cooperated with each other as a clinical team and respected each other's knowledge and professional skill.

In the present study, "human resources" was marked as the second dimension patients were most satisfied with. This finding was inconsistent with studies conducted in general wards of Finnish hospitals during the years 2008–2009.^[25,28] In these studies, patients were least satisfied with the "human resources" dimension and time spent by staff for their supervision. It seems that the increase in satisfaction with "human resources" in the current study can be due to the kind of hospital ward studied. Planning intensive courses for nurses before attendance in CCUs, a small number of patients admitted to CCUs, having more facilities and equipment, paying more attention to nurses training programs in CCUs, and managers focus on these

Table 1: The characteristics of the participants (n=225)

Variables		n (%)
Age (year)	18-37	26 (11.60)
	38-57	70 (31.10)
	58-77	110 (48.90)
	78-95	19 (8.40)
Duration of hospitalization (day)	5 >	189 (84.00)
	5 ≤	36 (16.00)
Gender	Female	91 (40.40)
	Male	134 (59.60)
Living status	Alone	12 (5.30)
	With my spouse, partner, friend, children, or another person	213 (94.70)
Education	Illiterate	109 (48.40)
	Primary school	45 (20.00)
	Diploma or prediploma	47 (20.90)
Employment status	University education	24 (10.70)
	Employed	78 (34.70)
	Retired	35 (15.50)
	Housewife	79 (35.10)
Admission type	Unemployed	33 (14.70)
	Preplanned	72 (32.00)
Reason for admission	Emergency	153 (68.00)
	Examination and other	15 (6.70)
Ward	Treatment	210 (93.30)
	CCU*	114 (50.70)
	ICU**	42 (18.60)
	Post-CCU	56 (24.90)
	Post-ICU	13 (5.80)

Data are presented as n (%). *CCU: Cardiac Care Unit, **ICU: Intensive Care Unit

Table 2: The mean score of the Persian version of the Revised Humane Caring Scale and its dimensions (n=225)

Dimension	Number of items (n=41)	Min	Max	Mean (SD)
Professional performance	15	1.80	5	4.72 (0.60)
Awareness of and contribution to self-care	10	1.50	5	4.23 (0.78)
Recognition of physical needs	3	1	5	4.34 (0.96)
Human resources	3	1	5	4.56 (0.74)
Pain and fear	4	1	5	4.30 (0.91)
Interdisciplinary collaboration	3	2	5	4.72 (0.65)
Humane care (overall P-RHCS*)	41	2.02	5	4.61 (0.53)

Scoring scale: 1=Totally disagree, 2=Partly disagree, 3=Cannot say, 4=Partly agree, and 5=Totally agree. Humane care: 6 dimensions and 3 items related to overall outcome of care. *P-RHCS: The Persian version of the Revised Humane Caring Scale

wards have an impact on promotion of nursing care and patients' satisfaction.

Patients' satisfaction with "recognition of physical needs," including sufficient food and liquids intake and hygiene needs, was at a desirable level after human resources. The score of this dimension in the studies by Kvist *et al.*^[25] and Mäntynen *et al.*^[28] got the second and third level of satisfaction, respectively, and was close to the results of the current study. As physical needs are basic and fundamental needs for life survival, it is normal that the first anxiety of nurses is related to the elimination of physical problems rather than other aspects of mental-emotional care.

In this study, the "pain and fear" dimension got the fourth level of satisfaction. In the studies by Kvist *et al.*^[25] and Mäntynen *et al.*^[28] patients' satisfaction with the mentioned dimension was at a moderate and desirable level, respectively, and its score was lower than that obtained in the current study. The lower score for the pain and fear dimension in the Finnish studies may be due to limitations in the use of opioid drugs, nurses' lack of time for exact and on time management of pain due to the great number of patients in general wards.

The "awareness of and contribution to self-care" dimension includes the provision of adequate and comprehensive information for patients to manage their diseases, encourage them to become involved in their care plan,

Table 3: The relationship between demographic and clinical characteristics of patients and their satisfaction with humane care

Variables		Humane care (overall P-RHCS*)	
		Mean (SD)	<i>p</i>
Age (year)	18-37	4.38 (0.72)	0.074
	38-57	4.41 (0.56)	
	58-77	4.57 (0.61)	
	78-95	4.62 (0.60)	
Duration of hospitalization (day)	5 >	4.55 (0.57)	0.001
	5 ≤	4.25 (0.76)	
Gender	Female	4.53 (0.59)	0.539
	Male	4.49 (0.63)	
Living status	Alone	4.22 (0.94)	0.046
	With my spouse, partner, friend, children, or another person	4.52 (0.59)	
Education	Illiterate	4.61 (0.54)	0.001
	Primary school	4.55 (0.56)	
	Diploma or prediploma	4.33 (0.63)	
	University education	4.26 (0.83)	
Employment status	Employed	4.51 (0.53)	0.105
	Retired	4.49 (0.68)	
	Housewife	4.58 (0.53)	
	Unemployed	4.32 (0.84)	
Admission type	Preplanned	4.61 (0.54)	0.034
	Emergency	4.46 (0.64)	
Reason for admission	Examination and other	4.23 (0.54)	0.032
	Treatment	4.52 (0.61)	
Ward	CCU**	4.46 (0.63)	0.001
	ICU***	4.31 (0.72)	
	Post-CCU	4.68 (0.46)	
	Post-ICU	4.75 (0.33)	

Significance: $p < 0.05$. *P-RHCS: The Persian version of the Revised Humane Caring Scale. **CCU: Cardiac Care Unit; ***ICU: Intensive Care Unit

help them to overcome their diseases, and provide them with the opportunity to learn performance skills^[25] got the lowest score. This low score revealed the poor skill of some nurses in teaching, communication, and appropriate contact with patients. However, patients considered such communications as important indicators that impact their satisfaction level.^[30] The score of this dimension in the studies by Kvist *et al.*^[25] and Mäntynen *et al.*^[28] was close to that in the current study. The Singaporean study by Goh *et al.*^[13] also revealed patients' low satisfaction with communication and contribution to self-care.

The results of this study indicated that increase in the number of hospitalization days resulted in a decrease in the patients' satisfaction with humane care provided in CCUs. It is obvious that, as hospitalization days increase, patients' awareness and expectations regarding caring, attention, and treatment increase; however, nurses are unable to provide all of their needs and expectations.

Moreover, it became clear that those patients who lived alone had little satisfaction with humane care in CCUs. This result may be due to these patients' weak social communication, lower supportive systems, and mental-spiritual problems

such as sorrow and grief that impact their perception of the quality of humane care behaviors.

With regard to education status, it can be asserted that patients with lower education levels had higher satisfaction with humane care in CCUs. It seems that people with low literacy had no precise information about ideal services and, thus, were satisfied with their care.

The results of this study showed that in preplanned hospitalization cases patients were more satisfied with humane care. Mack *et al.*^[31] confirmed this result in reporting that patients hospitalized with a previous familiarity with the physician and hospital reported higher satisfaction compared with those hospitalized without any planning and previous awareness.

Furthermore, it became clear that patients who were hospitalized for treatment were more satisfied with humane care. It seems that lack of awareness about their disease and fear and stress about the result of their diagnostic examinations in patients hospitalized for examination and inspection prevents them from a precise judgment about nurses' caring behaviors.

The present study results revealed a statistically significant relationship between ward type and patients' satisfaction with humane care. Patients in post-ICU and ICU had the most and the least satisfaction, respectively. The higher satisfaction of patients in the post-ICU ward may be due to their confidence in open heart surgery, and the provision of more scientific and exact care and access to technical equipment in this ward.

This study provides evidence for nursing educators about promoting positive caring attitudes among nursing students and preparing their roles as future nursing staff to provide care to patients in a safe and supportive environment. The P-RHCS can be used to measure humane care and the efficacy of service promotion programs in hospitals. Nursing managers can evaluate the quality of care using this scale and, then, identify the problems and develop strategies to improve the quality of nursing care. Furthermore, nursing managers can provide opportunities for staff to improve their awareness of humane behaviors and understand patients' needs through training programs. Nurses' effort to provide nursing care through humane care behavior will improve patients' satisfaction, and therefore, the quality of care. The use of P-RHCS can lead to further research and provide opportunity for the appearance of humanistic behaviors in the future.

One of the limitations of this study was the time when the questionnaire was completed by patients. It is better to ask questions about their satisfaction with the hospital about 1 or 2 weeks after their release. This time provides them with the chance to think about the quality and desirability of the hospital environment and to better express their thoughts. However, it was difficult to obtain all patients' phone numbers and refer to their homes. Thus, we decided to ask patients who were going to be released or were on their third day of hospitalization to complete the questionnaire.

Conclusion

The findings of the present study showed that patients were generally satisfied with humane care provided in CCUs. Certainly, the well-equipped CCUs and nurses' professional performance in these wards played significant roles in the increase in patients' satisfaction. In addition, the results indicated that demographic and clinical characteristics of patients influence their satisfaction. Thus, the improvement of health outcomes and increasing of patients' satisfaction necessitates the identification of factors effective on patients' satisfaction and the meticulous planning of the related authorities regarding this issue. Patients' satisfaction is a concept that has an important meaning in nursing care. Thus, nursing managers must continuously evaluate their nurses' clinical performance, provide proper planning for training courses, support, and hire motivated nurses to work in the wards that they are interested in and promote care within a humane framework by using reward and punishment systems. In the current study, RHCS was

used to explore patients' satisfaction with humane care in CCUs for the first time. It is recommended that similar studies be conducted in other provinces, especially other clinical wards, for careful comparison and exploration, and the provision of effective measures for the promotion of clinical outcomes.

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Conflicts of interest

Nothing to declare.

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