International Journal of Biology and Life Sciences
ISSN: 2957-9511 | Vol. 10, No. 3, 2025

Investigation and Analysis of the Humanistic Care Needs of Intensive Care Unit Patients

Linghua Liu, Wenting Li, Ning Sun *

Shaanxi Provincial People's Hospital Geriatric Hospital, Xi' an, Shaanxi, China
*** Corresponding author:** Ning Sun (Email: lhlsw@126.com)

Abstract: Objective: To explore the current status and related factors of humanistic care needs among patients in the intensive care unit (ICU), and to implement targeted humanistic care measures based on patient needs. Methods: From September 2023 to February 2024, this study involved 141 hospitalized patients at a Grade A tertiary general hospital in Xi 'an City. The study analyzed the factors influencing these needs using a questionnaire for general patient information and a questionnaire for ICU humanistic care needs. Data processing was conducted using SPSS27.0, with one-way ANOVA and independent samples t-tests used to analyze the data. $P<0.05$ was considered statistically significant. Results: Among the scores for humanistic care needs in the ICU, the highest score was for the need for a monitoring environment. The dimensions, from highest to lowest, were: the need for a monitoring environment (22.48±5.51), basic nursing needs (18.88±4.28), the need for care from nursing staff (18.57±4.46), communication needs between nurses and patients (18.45±4.81), psychological intervention needs (14.74±3.57), and visitation needs (11.42±2.65). The total score for each item of nursing humanistic care needs was (104.54±23.63). One-way ANOVA showed that educational level had a statistically significant difference in humanistic care needs ($P<0.05$). Conclusion: (1) Among the humanistic care needs, the highest score was for the need for a monitoring environment, indicating that improving the monitoring environment is the most urgent need for patients. (2) There is a positive correlation between patients' educational level and their humanistic care needs, with higher educational levels leading to higher humanistic care needs. (3) Patients have a high demand for humanistic care in holistic nursing, and show different characteristics, indicating that patients with different characteristics in intensive care units have different needs for humanistic care.

Keywords: Intensive Care Unit; Humanistic Care; Needs.

1. Introduction

As the biopsychosocial medical model and the evolving human perspective on health [1], the nursing approach has shifted from a disease-centered to a patient-centered, humanistic care model. In practice, nurses have recognized the importance of humanistic care for patients [2]. However, when critically ill patients and vulnerable individuals are under closed management in the ICU, the institutional, methodological, and ideological aspects of ICU nursing practices and concepts often lead to a focus on saving lives, monitoring conditions, and providing symptomatic treatment, while neglecting the psychological and emotional needs of patients and the importance of humanistic care. During the most critical moments of life and death, when patients' right to visitation is not fully respected, nurses frequently use infection control as an excuse to restrict visits [3][4], leading to severe psychological trauma, such as feelings of loneliness, despair, extreme irritability, and profound pain.

Maslow's hierarchy of needs, from the lowest to the highest, includes: physiological needs, safety needs, love and belonging needs, esteem needs, and self-actualization needs. Everyone has these five levels of needs, but they do not always coexist simultaneously. The urgency of these needs varies greatly depending on different times, conditions, and environments. Only when lower-level needs are met do higher-level needs become the primary focus. Maslow's hierarchy of needs, along with the principles of medical ethics, the essence of nursing humanistic care, and the practical requirements for the development of intensive care unit (ICU) nursing, make it particularly urgent to integrate humanistic care into nursing practices. To address the increasingly prominent issue of humanistic care in nursing, it is essential to investigate problems, identify causes, analyze solutions, and integrate humanistic care into every aspect of ICU nursing. This exploration is crucial for developing standardized ICU nursing routines that incorporate humanistic care.

This article focuses on developing nursing routines for the ICU that integrate humanistic care, specifically targeting patients 'needs for such care. The aim is to integrate professional skills and humanistic care throughout the patient's treatment process through the implementation of these new routines, thereby meeting the patients 'internal needs and accelerating their recovery. Additionally, appropriate humanistic care is provided to the patients' families to encourage their active cooperation, helping patients build confidence in overcoming their illness and alleviating both physical and psychological discomfort. This also promotes the application of humanistic care concepts by nursing staff and encourages them to put these concepts into practice. The primary subjects of the study are patients, and no further discussion or research will be conducted on other aspects.

2. Object and Method 1

2.1. Research Object

Convenience sampling was used to select 141 patients from the intensive care unit, cardiovascular medicine, respiratory medicine, urology, orthopedics and neurosurgery departments of a grade A hospital in Xi 'an.

Inclusion criteria: 1) The subjects have no unconscious disorder and can communicate with medical staff; 2) The

patients are in the stage of improvement, stable or recovery; 3) The subjects voluntarily accept the questionnaire and can accurately answer the contents of the questionnaire;

Exclusion criteria: 1) Individuals with severe hearing, vision, or speech impairments; 2) Patients with severe physical illnesses, extreme weakness, or other conditions that make it difficult to conduct various functional assessments, or whose scale outcomes are unstable for other reasons; 3) Patients with Parkinson's disease, a history of mental illness, intellectual disabilities, or brain injuries, or those who have received or are receiving psychiatric treatment; 4) Patients with significant depressive symptoms, severe cognitive impairment, or dementia.

2.2. Method

This study employed a convenience sampling method, selecting ICU patients who met the inclusion and exclusion criteria for the survey. Before the survey, the significance and purpose of the study were explained to the participants, and informed consent was obtained. All questionnaires were completed uniformly on Questionnaire Star, and no one else could fill them out or fill them out randomly. The collected data were analyzed to discuss the varying needs for humanistic care among different patients across various dimensions.

3. Results

3.1. Comparison of General Data

General Information

The general information included: gender, age, marital status, educational level and occupation.

Among the 141 respondents, 75 were male (53.19%) and 66 were female (46.81%). The data was entered into Excel, and statistical analysis was conducted using SPSS27.0. Independent samples t-tests and one-way ANOVAs were performed to compare scores for different genders, ages, marital statuses, educational levels, occupations, and humanistic care needs. See Table 1 for the basic information

Table 1. Basic information of the respondents (n=141)

	project	number of people n (%)
sex	man	75(53.19)
	woman	66(46.81)
age	18−40	9(6.38)
	41−65	101(71.63)
	65 years and older	31(21.99)
marital status	unmarried	9(6.38)
	married	93(65.96)
cultural standing	dissociaton	24(17.02)
	bereft of one's spouse	15(10.64)
	Bachelor degree or above	50(35.46%)
	Undergraduate or higher vocational	38(26.95)
	High school and technical secondary school	24(10.72)
	Junior high school and below	29(20.57)
occupation	worker	39(27.66)
	peasant	37(26.24)
	Administrative cadres	24(17.02)
	artisan	13(9.22)
	teacher	17(12.06)
	student	2(1.42)
	other	9(6.38)

3.2. Scores of Various Dimensions of Humanistic Care Needs of Patients in Intensive Care Units

Table 2. The dimensions, total score and item average of patients in the intensive care unit's need for nursing humanistic care (((x±S)

dimension	Number of entries	The mean of the dimensions	Items are evenly distributed
a Need for care from nursing staff	5	18.57±4.46	3.71±0.89
B. The need for visits	3	11.42±2.65	3.81±0.88
C. Nursing communication needs	5	18.45±4.81	3.69±0.96
D Requirements for the monitoring environment	6	22.48±5.51	3.75±0.92
E. Need for psychological intervention	4	14.74±3.57	3.69±0.89
F Basic nursing needs	5	18.88±4.28	3.78±0.86
Total questionnaire score	28	104.54±23.63	3.73±0.84

The total score of humanistic care needs for patients in the intensive care unit was (104.54±23.63). Among them, the

highest score of "the need for monitoring environment" dimension was (22.48±5.51), and the lowest score of "the need for visiting" dimension was (11.42±2.65), as shown in Table 2.

3.3. Single Factor Analysis of Humanistic Care Needs of Patients in Intensive Care Unit

The comparison of the scores of humanistic care needs of patients in different intensive care units showed that the score difference of different educational levels was statistically significant (P<0.05), while there was no obvious difference in gender, age, marital status and occupation (P>0.05). See Table 3 for details.

Table 3. Univariate analysis of humanistic care needs of patients with different characteristics

project	classify	score	F/t price	P price
sex	man	99.43±26.71	7.864	0.06
	woman	110.35±18.08		
age	18−40	119.11±11.52	2.309	0.103
	41−65	104.61±23.65		
	65 years and older	100.06±24.96		
marital status	unmarried	110.00±24.48	0.913	0.437
	married	104.35±23.27		
	dissociaton	108.17±19.85		
	bereft of one's spouse	96.60±30.47		
cultural standing	Bachelor degree or above	107.84±24.37		
	Undergraduate or higher vocational	108.76±22.19		
	High school and technical secondary school	106.00±19.75		
	Junior high school and below	92.10±24.02	3.630	
occupation	worker	101.74±24.25		
	peasant	105.86±21.03		
	Administrative cadres	99.46±28.85		
	artisan	113.61±19.53	0.906	
	teacher	102.41±26.72		
	student	114.0±0.00		
	other	113.56±14.74		

4. Discussion

4.1. Analysis and Measures of Humanistic Care Needs of Patients in Intensive Care Units

The dimensions of humanistic care needs for patients in the intensive care unit (ICU) are ranked from highest to lowest as follows: the need for a monitoring environment (22.48±5.51), basic nursing needs (18.88±4.28), the need for care from nursing staff (18.57±4.46), communication between nurses and patients (18.45±4.81), psychological intervention needs (14.74±3.57), and the need for visits (11.42±2.65). The total score for the items related to humanistic care needs is (104.54+23.63), indicating that patients in the ICU have a high overall level of humanistic care needs. Moreover, there is a significant difference in humanistic care needs among patients with different educational backgrounds (p<0.05), with higher education levels correlating with higher humanistic care needs. The enclosed environment of the ICU, which isolates patients from the outside world, can lead to feelings of tension and anxiety, and even reluctance to cooperate with treatment. In such cases, it is crucial for nursing staff to enhance their humanistic care concepts, providing not only relief from pain but also support at the spiritual, cultural, and emotional levels. This suggests that nursing staff should focus not only on the patients' illnesses but also on their feelings and psychological needs, offering them spiritual support, psychological comfort, and practical guidance, ensuring they feel respected, cared for, and nurtured. Additionally, there is no statistically significant difference in the need for humanistic care among patients of different ages and occupations (P>0.05), indicating that despite differences in age and occupation, patients share a consistent need for humanistic care, desiring to be satisfied under better medical conditions. Nurses should be close to patients, understand their individual needs, actively identify and address the issues they face or may encounter, help patients solve problems, and maintain a warm and friendly attitude. They should use appropriate language, answer all questions, and show extra care and encouragement. This approach helps patients feel a sense of warmth, safety, and trust, thereby continuously meeting both their medical and psychological treatment needs.

4.1.1. The Need for A Monitoring Environment Scored the Highest

In all dimensions, the need for a monitoring environment scores the highest, indicating that this is the most pressing need for patients in the ICU. Factors such as the impact of underlying diseases, adverse stimuli like noise and light, nighttime nursing procedures, and emergency rescues lead to widespread sleep disorders among ICU patients. Rest and sleep are fundamental physiological needs, and good rest and sleep are crucial for maintaining and promoting health. However, numerous studies have shown that ICU patients generally suffer from varying degrees of sleep disorders [5][6]. Due to underlying diseases, adverse stimuli like noise and light, nighttime nursing procedures, and emergency rescues can all disrupt patients 'sleep[7]. According to Ma Penglin et al. [8],60.1% of ICU patients experience significant insomnia, and 58.3% feel fatigued. Patients often experience interrupted or light sleep, with noticeable deficiencies in slow-wave and REM sleep[9]. Additionally, research indicates that specific environments and diagnostic

practices in the ICU can significantly affect patients' sleep, particularly in highly alert patients. Data shows that approximately 55.8% of ICU patients experience discomfort due to sleep problems, and more than half of the patients exhibit significant anxiety and depression[10]. It is highly detrimental to the patient's recovery. For example, as COPD patients experience the progression of pulmonary ventilation and gas exchange disorders, their oxidative and antioxidant mechanisms become imbalanced. Combined with dysfunction of the autonomic nervous system, patients may suffer from cerebral ischemia and hypoxia, leading to breathing difficulties, difficulty falling asleep, reduced sleep duration, frequent dreams, and even insomnia or restlessness [11][12]. Moreover, female patients are particularly concerned about privacy exposure, requiring that the sheets in the ICU be used with greater respect for patient privacy during environmental and nursing procedures. Therefore, improving the ICU environment is crucial for enhancing the sleep quality of conscious patients and reducing anxiety and depression. Nursing staff need to improve the overall environment of the ICU, ensuring it is safe, reliable, clean, comfortable, with fresh air, suitable temperature and humidity, and a light and day-night rhythm. The ward should have a warm and soft color scheme, with walls adorned with warm murals or slogans, and green plants added to enhance the living atmosphere. The treatment environment should be low-noise, with nursing staff avoiding loud noises and being gentle when walking, opening and closing doors, speaking, and operating. Nighttime nursing operations should be minimized, and the alarms of various instruments should be set to the lowest volume. Privacy should be protected by setting curtains between beds to minimize the exposure of patients to the outside world. When performing operations that may expose patients, such as sponge baths and catheterization, care should be taken to cover up, making patients feel cared for and respected.

4.1.2. The Demand for Basic Nursing Scored Higher

Comprehensive analysis reveals that the primary nursing needs of patients in the intensive care unit (ICU) mainly focus on diet and hydration, pain relief, rest and sleep, and positioning and activity. Due to their condition, critically ill patients in the ICU are often placed on a fasting and no-drinking regimen. Thirst is the most common, severe, and often overlooked symptom among ICU patients[13]. Kjeldsen et al. [14] found that patients often feel hopeless, anxious, and helpless due to thirst. Pain is the most common discomfort for ICU patients, and managing it and providing sedation have always been key focuses in ICU care. Patients frequently undergo various treatments and nursing procedures, including surgery, trauma, tracheal intubation, invasive monitoring, and other procedures, which can lead to varying degrees of pain. 1) Enhance the knowledge and skills of nursing staff in pain management and assessment to improve pain management. 2) Improve the professionalism of basic nursing by increasing the success rate of invasive procedures and punctures. 3) Closely monitor the water intake of critically ill patients, and adjust the intravenous fluid regimen as needed based on the patient's condition. Additionally, evaluate the patient's gastrointestinal function and provide timely and efficient enteral and parenteral nutrition to ensure adequate nutritional support, which is crucial for the patient's recovery.

4.1.3. The Need for Care from Nursing Staff is Slightly Higher

The hospital's regulations mandate that the ICU ward implement a closed and restricted visitation management system. All patients must comply with the management system, which includes unified standards for nursing management, treatment tools, safety management, sedation therapy, treatment timing, treatment order, visitation times, infection control standards, environment, nursing staff, and transfer criteria [15]. Management theories, methods, systems, tools, and procedures often overlook the special needs of individual patients, their personalities, and emotions. Additionally, patients' fear of illness and unfamiliarity with the environment can lead to feelings of loneliness and helplessness. While providing routine treatment and care, the mental state and social adaptability of patients should not be overlooked. Without effective communication skills, a higher level of harmony between nurses and patients cannot be achieved, leading to patients being less cooperative, mistrusting nurses, and not understanding the nurses 'intentions, thus failing to achieve the desired outcomes [16], 1). Effective communication techniques should be used, emphasizing the two-way nature of information exchange. First, listen carefully to the patient's concerns, especially their descriptions of the disease and expectations for treatment. Understand the patient's worries during the treatment process, pay more attention to the patient's emotions, and use encouraging language. When necessary, use non-verbal communication to support, such as expressions, gestures like smiles, nods, handshakes, and massages, to convey kindness and create a sense of security for the patient.

4.1.4. Patients have High Visiting Needs

According to the highest average score in the ICU patient needs list, both patients and their families have a high demand for visits. Given the severity of the patients' conditions, medical and nursing staff face heavy workloads, often leading to enclosed or semi-enclosed environments in the ICU, which can make patients feel lonely, anxious, and fearful. A randomized controlled study by Fumagalli et al. [17] found that both strict and open visitation policies did not increase the number of bacteria in hospitals. Therefore, without affecting treatment, departments can flexibly set visitation times and numbers based on specific circumstances. In special cases, visitation times can be extended as needed, and humanistic visitation can be implemented.

4.2. Analysis of Influencing Factors of Humanistic Care Needs of Patients in Intensive Care Units

According to the one-way ANOVA, the higher the level of education, the greater the need for humanistic care. According to Maslow's hierarchy of needs, once patients have met their basic physiological needs, they will seek higher-level needs. Patients with lower education levels often have a limited understanding of their own conditions, leading to lower self-perception of their illness. Negative emotions stemming from this lack of knowledge can affect their adherence to treatment, leading to a higher sense of stigma and the need for humanistic care and guidance.

The data from this study shows that, apart from educational level, there is no significant difference in the level of humanistic care needs among different demographic characteristics. However, Edvardsson et al. [18] found that patients of different genders and ages have varying needs for humanistic care in nursing, which contradicts the findings of this study. This discrepancy may be due to differences in the

subjects studied, including their diseases, cultural backgrounds, hospital environments, and management models, all of which can influence patients' perceptions and needs for humanistic care. Some scholars have noted that if patients have different types of diseases or varying degrees of severity, their perceptions and needs for humanistic care in nursing will also differ [19]. This may also be related to the convenience sampling method used in this study, the limited data sources leading to a small sample size, and the limitations in representativeness.

Although the level and focus of humanistic care vary among different educational backgrounds, overall, patients in the ICU show a high level of need for humanistic care. Their needs are prioritized, and both their health and mental well-being are taken into account. In addition to traditional daily care, purposeful and humane nursing and care are provided, helping patients better adapt to their needs and thus improving their satisfaction with care.

5. Conclusion

The overall level of humanistic care needs among patients in the intensive care unit is relatively high. The dimensions of these needs, from highest to lowest, are: the need for a monitoring environment, basic nursing care, care from nursing staff, communication between nurses and patients, psychological intervention, and visits. Factors influencing the need for humanistic care include educational level, which is positively correlated with patient needs.

To meet the humanistic care needs of patients in the ICU, relevant humanistic care measures have been developed. These measures aim to enhance humanistic care in areas such as visiting policies, monitoring environments, psychological interventions, nurse-patient communication, and basic nursing. Additionally, efforts are made to improve the quality of humanistic care among nursing staff, integrating it into daily nursing practices and making it a standard practice. This ensures that the concept of humanistic care is deeply ingrained and reflected in actions. The goal is to foster a harmonious and stable relationship between nurses and patients in the ICU, creating a positive social and psychological environment. Patients should not only be physically well but also mentally healthy and socially adaptable.

Acknowledgments

Fund project: Shaanxi Provincial Key R&D Program (NO. 2022SF-4207).

References

[1] Wang Xiaoyan. Transformation of medical model promotes the updating of health concept [J]. Journal of Shandong Medical University (Social Sciences Edition), 2000, (01):1-4.

[2] Liu Yilan, Yang Xuejiao, Hu Deying et al. Research progress on nursing humanistic care standards [J]. Chinese Journal of Nursing, 2014,49 (12):1500-1505.

[3] Yang Liwei, Li Wentao, Zheng Nan. Research progress on the visiting system in intensive care units [J]. Chinese Journal of Nursing, 2014,49 (07):871-874.

[4] Zhang Renchuan. Discussion on the Integration of Humanistic Care in ICU Nursing [D]. Heilongjiang University of Traditional Chinese Medicine, 2017.

[5] Zhang L, Sha Y S, Kong Q Q, et al.Factors that affect sleep quality :perception made by patients in the intensive care unit after thoracic surgery[J].Support Care Cancer,2013, 21(8): 2091-2096.

[6] Tembo A C, Parker V, Higgins I.The experience of sleep deprivation in intensive care patients:findings from a larger hermeneutic phenomenological study[J].Intensive Crit Care Nurs,2013,29(6):310-316.

[7] Tembo Y, Oding H,Jennum P.Sleep disturbances in critically ill patients in ICU:hue much do we know?[J]. Acta Anaesthesiol Scand,2012,56(8):950-958.

[8] Ma Penglin, Li Qin, Liu Jingtao, et al., A Multicenter Investigation on the Relationship between Sedation-Pain Management Strategies and ICU Discomfort Experiences in Mechanical Ventilation Patients [J]. PLA Medical Journal, 2008, (8):957-959.

[9] Hu R F. Jiang X Y, Hegadoren K M, Hu R F. Jiang X Y, Hegadoren K M, et al. Effects of earplugs and eye masks combined with relaxing music on sleep, melatonin and cortisol levels in ICU patients: a randomized controlled trial[J]. Crit Care, 2015.19:115.

[10] Yang Guoqing and Zheng Anlong. The Application Value of Prospective Nursing in Alleviating the Negative Emotions of Awake Patients in ICU and Improving Their Sleep Quality [J]. Practical Clinical Nursing, 2019,4(31):32+194.

[11] Wang Jianhua, Hu Guifang, Jiang Shibei et al. The effects of non-invasive mechanical ventilation on sleep and cognitive function in patients with chronic obstructive pulmonary disease complicated by respiratory failure [J]. International Respiratory Journal, 2018,38(19):1465-1469.

[12] Chen Rujuan. Analysis on the influence of prospective nursing on sleep quality of conscious patients in ICU [J]. World Journal of Sleep Medicine, 2018,5(04):465-467.

[13] Tsay S F, Mu P F, Lin S, Tsay S F, Mu P F, Lin S, et al. The experiences of adult ventilatordependent patients: a metasynthesis review[J]. Nurs Health Sci,2013,15(4):525-533.

[14] Kieldsen C L. Hansen M S. Jensen K. Kieldsen C L. Hansen M S. Jensen K. et al. Patientsi experience of thirst while being conscious and mechanically ventilated in the intensive care unit[J]. Nurs Crirt Care.2018.23(2): 75-78.

[15] Guo Suyun, Ye Deqin. Effects of non-verbal communication and educational picture book on conscious patients under endotracheal intubation in ICU [J]. Nursing Research, 2014, 28 (36): 4567-4568. 1

[16] Wang Chunxia, Chen Jianxin, Zheng Ai Hua. Experiences of integrating humanistic care into nursing work [J]. China Contemporary Medicine, 2013,20 (30):156-157.

[17] Fumagalli S. Boncinelli L,Nostro AL, Fumagalli S. Boncinelli L,Nostro AL, et al. Reduced cadiocirculatory complications with unrestricted visiting policy in an intensive care unit: results from a pilot,randomized trial [J]. Circulation, 2006, 113(7): 946-952.

[18] Edvardsson D, Watt E, Pearce F. Patient experiences of caring and person-centredness are asscіated with perceived nursing care quality[J]. J Adv Nurs, 2017,73(1):217-227.

[19] Wu Wei, Lu Chufeng, Liu Yilan, et al. Research Progress on the Humanistic Care Experience of Inpatients [J]. Nursing Journal, 2016,31(23):96-99.