



# The Critical Role of Nurses in Patient Care in the Intensive Care Unit

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## Abstract

## Introduction

Patients with potential life-threatening processes and vital organ dysfunction who require specialized care are admitted to the Intensive Care Unit (ICU), and critical care nurses have vital roles in patient care. This study was conducted to examine the critical role of nurses in patient care in the ICU.

## Methods

This is a review study, and papers published within the period of 2006-2024 were investigated. Conducting this search, papers related to this subject were extracted from PubMed, Magiran, Google Scholar, Elsevier, and SID databases.

## Results

critical care nurses play a vital role in the ICU with significant responsibilities, including holistic and hands-on care, effective nurse-patient communication, patient advocate and empowerment, family support, surveillance, patient monitoring, decision-making support, end-of-life care, ethical consideration, important member of Rapid Response teams, safe and high-quality care, palliative care, pain management, infection prevention, psychological support, rehabilitation of patients, patient education, and overall, patient management.

## Conclusion

The nursing profession plays an indispensable role in the healthcare system, particularly in the ICU. Their responsibilities go beyond clinical tasks. The significance of nursing is evident in its impact on patient outcomes, improving not only survival rates but also the quality of life for critically ill individuals.

**Keywords:** Role of Nurses, Patient Care, Intensive Care Unit



## Introduction

The Intensive Care Unit (ICU) is a specialized department in hospitals, and is equipped with advanced medical technology, such as ventilators, cardiac monitors, and dialysis machines, to support critical bodily functions. It is designed to provide intensive monitoring, treatment, and care for patients with severe or life-threatening conditions.

The number of critically ill patients has increased during the last decades. Patients with potential life-threatening processes and vital organ dysfunction who require specialized and continuous care are admitted to the ICU. The ICU plays an important role in the care process of many patients. Effective interventions in ICU are essential to decrease negative outcomes and increase the quality of life [1]. The ICU environment is highly dynamic and stressful, demanding constant vigilance, quick decision-making, and treatment among healthcare providers. Nursing is one of the most essential roles among healthcare providers, acting as the backbone of patient care.

Working in the ICU is increasingly complex and physically, cognitively, and emotionally demanding. The ICU work environment requires nurses to deliver humane care in work environments that are becoming increasingly technical and are associated with growing responsibilities. The ICU nurses require to maintain specialized knowledge and advanced skills to assess, monitor, and effectively respond to the needs of patients [2,3].

The goal of this paper is to explore the critical role of nurses in patient care, in the ICU. This paper aims to highlight how nurses contribute to patient outcomes through direct care, monitoring, emotional support, and other essential roles. Understanding the multifaceted roles of nurses is vital, as their actions directly influence the recovery and well-being of critically ill patients. The importance of this paper lies in raising awareness about the essential contributions of nurses in ICU setting, emphasizing the need for continued education, training, and recognition of their vital role in healthcare teams.

## Material and Methods

This is a review study, and papers published within the period of 2006-2024 were investigated. To obtain related scientific documents, web surfing was conducted in Persian and English using various keywords, including the role of nursing, intensive care unit, patient care. Conducting this search, papers related to this subject were extracted from PubMed, Magiran, Google Scholar, Elsevier, and SID databases.

## Results discussion



A review of multiple articles indicate that critical care nurses play a vital role in the ICU with significant responsibilities, including holistic and hands-on care, effective Nurse-Patient communication, patient advocate and empowerment, family support, surveillance, patient monitoring, decision-making support, end-of-life care, ethical consideration, important member of Rapid Response teams, safe and high-quality care, palliative care, and other roles.

### **Holistic care**

Beyond the immediate management of acute conditions, critical care nurses provide holistic care and evidence-based practices that addresses the psychological, emotional, physical, social, and spiritual needs of patients and their families. They offer support, comfort, and education, fostering a therapeutic relationship that contributes to the overall well-being of the patient [4].

### **Hands-on care**

The ICU nurse is the primary responsible for the care taking and treatment of patients within an unstable or critical clinical situation. Nurses spend time in direct care activities, has been identified as a determinant of better patient outcomes and fewer errors. Direct care is likely to produce improvements in patient and health professionals' satisfaction, which may also impact upon improved staff retention [5]. Nurses are equipped with advanced skills that enable them to carry out specific, autonomous or complementary interventions of a technical-scientific, managerial, relational, and educational nature such as medication administration, tracheotomy, ventilator management, constant monitoring for any changes in the patient's status, intravenous insertion and infusion, central line care, Swan-Gans catheters maintenance, keeping a detailed record of the patient's condition, etc. They must also always be prepared to perform cardiopulmonary resuscitation and other lifesaving techniques. The nurse manages and coordinates nursing care through an in-depth and ongoing assessment, therapies and high-intensity interventions [6].

### **Effective Nurse- Patient communication**

Early communication with the patient and family by the care team especially by nurses is essential. It is important for health care providers to match the treatment options to the patient's preferences. Standardizing the communication process significantly reduces LOS (length of stay) associated with ICU admission for severe illnesses [7]. Also, effective communication leads to recognize any signs of deterioration, fostering positive relationships with patients and their families [4], and maintain patients' by performing appropriate nursing activities [8].

### **Patient advocate**



Nurses have a unique presence at the bedside in hospitals, which enables therapeutic relationships to be formed. These relationships give nurses in-depth knowledge of patients, and facilitating patient advocacy [9]. As a patient advocate, nurses play a crucial role in ensuring that patient's voices are heard, their preferences are respected, and their rights are upheld. Advocacy extends to navigating complex healthcare systems, facilitating communication between patients and healthcare providers, and promoting ethical and patient-centered care [4]. Moreover, nurses are best placed to notice and interpret changes in patients' conditions and effectively meet their needs and provide care promptly. Generally, the time nurses spend at the bedside is crucial to providing quality healthcare [10].

### **Patient empowerment**

Patients being empowered means having the information, so they know enough about health and disease to make decisions about the variety of options available to them. For example, the competent role of ICU nurses is planning and directing the implementation of a multidisciplinary program during ICU transition that could reduce ICU readmission and hospital mortality [11]. the nurses within the multidisciplinary team of the ICU develop a fundamental role in the ICU transition planning process, as they are the ones who participate in, organize, and carry out the direct interventions of patient care during the transition [12]. During the transition, it is the nurses' responsibility to assess the needs of patients, provide adequate information and education to the patient and their family, and this knowledge or information that patients have will affect their power [11,13].

### **Family support**

Families are at risk of emotional and psychological distress, as a result of the admission of their relative to intensive care unit. Also, families play an important role in providing the patient with psychosocial support. If families are not well supported by nurses, patients are also at risk of emotional distress, So critical care nurses have an important role in helping families manage anxiety and increasing their ability to cope with stressful situations [14].

### **Nursing surveillance**

Among nursing activities, nursing surveillance is defined as the intentional and ongoing acquisition, interpretation, and synthesis of patient assessment data for clinical judgements, which is essential for enhancing patient safety and minimizing patient harm [15,16]. Surveillance is dynamic and extends over time. Five attributes are associated with nursing surveillance: systematic process, pattern recognition, coordinated communication, the anticipation of problems of instability, and decision making [15]. Behavioral activities and multiple cognitive processes are used in surveillance in order for the nurse to make



decisions for patient safety and health maintenance [16]. When nursing surveillance is present, patient safety is enhanced and adverse events that harm patients are reduced [15].

### **Patient monitoring**

As a 24-hour care provider, nurses act as the hospital's monitoring system for the early detection and prevention of adverse events, they need to assess critically ill patients' conditions, address nursing problems and perform nursing interventions that directly influence patient outcomes [17]. Generally, this constant vigilance allows for timely intervention, preventing or mitigating adverse events and optimizing patient outcomes [4].

### **Decision-making support**

Shared decision-making (SDM) process is a model that emphasizes patient participation and was initially developed for the relationship between healthcare team and patients to involve in the patient's decision-making process in complex real-world situations [18]. The nurses' roles in SDM positioned nurses as intermediaries between physicians and patients. Independent nursing support facilitated a structured approach led to SDM with patients, families, and healthcare professionals. Understanding the unique roles that nurses play in decision-making support to patients by focusing on values and the search for meaning and to contribute to the healthcare team, may lead to the development of different approaches for managing complex SDM for difficult decisions and critical timing [19].

### **End-of-life care**

It can be a difficult and challenging process in the ICU because many terminal illnesses involve withholding or withdrawing life-sustaining therapies, and in such situations, the role of critical care nurses shifts from providing life-sustaining measures to end-of-life care. Increased levels of perceived knowledge and attitudes of nurses toward end-of-life care were associated with the effective care [20].

### **Ethical consideration**

It can be related to end-of-life care so the need for ethical frameworks and ongoing ethical education for critical care nurses, is necessary [4].

### **Rapid Response teams**

Critical Care Nurses play a key role in Rapid Response Teams (RRTs), addressing medical emergencies and administering prompt critical care to patients experiencing decompensation [21]. These teams respond



to various critical conditions in ward-based patients, addressing issues such as respiratory distress, chest pain and acute mental changes [22]. They also exercise critical care skills, including assessing the potential need for intubation, administering complex pharmacological therapies and ensuring the appropriate transfer of patients to the proper level of care [23]. The RRT model encompasses three key components: (1) The afferent limb, responsible for systematic patient monitoring and deterioration detection based on predefined criteria; (2) the efferent limb, comprising the response team with expertise in managing medical emergencies; and (3) the administrative limb, focused on data collection, reporting feedback provision and system improvement [24].

### **Safe and high-quality care**

The vital role of nurses is to provide safe and high-quality care [25]. In ICU, a nurse takes crucial clinical decisions based on the best available scientific evidence, clinical experience, and patient preferences. Additionally, they plan healthcare assistance using scientifically validated tools, identify and analyze risks related to care provision, and evaluate healthcare outcomes systematically to ensure safe and high-quality treatment. [6].

### **Palliative care**

All health care providers should consider incorporating palliative care (PC) early during some illnesses admission such as the stroke, as a routine care and not solely for life-limiting illness [7]. Applying palliative care guidelines and shared decision making provides nurses with a framework to eliminate barriers in communication and to standardize care for the severely ill patient with stroke. The goal of palliative care is to provide specialized patient-centered care that focuses on improving the critically ill patient's goals and quality of life [26].

### **Other Roles**

pain management, infection prevention, psychological support, rehabilitation of patients, patient education, and overall, patient management [4].

### **Conclusions**

In conclusion, the nursing profession plays an indispensable role in the healthcare system, particularly in critical care settings such as the ICU. Nurses are at the forefront of patient care, often being the first to detect changes in a patient's condition and responding swiftly to prevent further complications. Their responsibilities go beyond clinical tasks; they serve as advocates for their patients, provide emotional support, educate families, and ensure that patients receive holistic care that addresses both their physical



and psychological needs. The significance of nursing is evident in its impact on patient outcomes, improving not only survival rates but also the quality of life for critically ill individuals. Acknowledging the vital contributions of nurses and supporting their ongoing education and development is essential for the continued advancement of patient care in healthcare systems worldwide.

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