

*Review Article***The role of nursing care during post-burn mood disorders: A narrative review**

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**Abstract**

Burn injury patients often experience a range of psychological challenges, such as pain, anxiety, and depression. In this context, nurses have a crucial responsibility in caring for clients with mood disorders. In the current study, the authors aim to provide a comprehensive perspective on nursing role during post-burn mood disorders among burn patients by reviewing previous evidence literature. A comprehensive literature search was conducted on PubMed and Scopus databases using the following key terms "burns", "severe burns", "mood disorders", and "nursing". The search desire focused on papers related to burns, mood disorders, and nursing. 20 studies were selected for this review. Nurses play a crucial role in managing post-burn psychological conditions like depression, post-traumatic stress disorder (PTSD), and anxiety. Their responsibilities include early detection, holistic assessment, and intervention in addressing patients' emotional well-being. Educating patients and families, providing emotional support, and creating a therapeutic environment are critical aspects of nursing care. Nurses work to demystify psychological conditions, encourage mental health engagement, and implement personalized care plans. By reducing stress, promoting emotional well-being, and facilitating access to mental health services, nurses contribute significantly to burn survivors' recovery and quality of life. Nursing's integral role in managing post-burn psychological conditions like depression, PTSD, and anxiety is crucial. Nurses provide compassionate, holistic care that meets the diverse needs of burn survivors, guiding them toward recovery.

**Keywords:** Nursing, Depression, Anxiety, Post-traumatic Stress Disorder, Burns.

**1 | Introduction**

Burn injuries are a global health concern, resulting in approximately 180,000 fatalities annually [1-13]. Burns can be defined as damage to the skin or any organic tissue that is mainly caused by fire, electricity, radioactive, radiation, and chemical substances [14-30]. Burn injuries can have profound and enduring implications, manifesting not only in physical ramifications [31-46] but also significantly impacting the mental health and overall quality of life of affected individuals [47-55]. This burden extends beyond patients themselves, affecting their families and placing

substantial strain on healthcare systems globally [56-77]. Notably, burns rank as the fourth most prevalent type of accident, afflicting approximately 11 million individuals worldwide and resulting in 300,000 annual fatalities [78].

Burn injuries can be classified according to various factors, such as their depth, cause, and the percentage of the body surface area affected. The combination of these classifications determines the severity of the burn injury. Partial-thickness and full-thickness burns are the most common types of burns. In a superficial partial-thickness burn, only the epidermis and the outer

dermis layer are damaged, and most appendage structures remain intact. The risk of scarring is low in this type of burn, and recovery typically takes about 10-14 days. However, if the burn extends into deeper dermal layers and causes significant damage to the appendages, regeneration of the epithelium can take up to 3-6 weeks with a higher likelihood of hypertrophic scarring. In contrast, full-thickness burns penetrate all skin layers and may require surgical intervention for proper wound healing [79, 80].

Furthermore, medical advancements have led to improved survival rates for burn patients in the acute phase of recovery. However, these individuals often face complex and unique psychosocial challenges in the long-term [81, 82]. Scarring, particularly on the face, neck, and head, is a common outcome of burn injuries. Scarring and contractures can be significant concerns for post-burn patients [83, 84]. Burn patients often experience a range of psychological challenges, such as pain, anxiety, depression, low self-esteem, post-traumatic stress disorder (PTSD), stigma, concerns about physical disfigurement, social isolation, and financial burdens due to prolonged hospitalization and necessary treatments. It is crucial to address these psychological issues promptly to enhance the patients' quality of life and overall well-being. Ignoring these challenges can lead to the development of chronic mental health disorders [85, 86].

Moreover, nurses have a crucial responsibility in caring for clients with mood disorders. They are involved in various aspects of nursing care, such as assessing clients, collaborating with interprofessional teams, and providing holistic care. Also, they conduct psychiatric interviews, perform mental status examinations, and prioritize tasks such as assessing suicide risk, administering medication, and facilitating psychotherapy. Nurses also play a vital role in promoting well-being by addressing cultural nuances and contributing significantly to recovering individuals with mood disorders [87, 88].

In the current study, the authors aim to provide a comprehensive perspective on nursing role during post-burn mood disorders among burn patients by reviewing previous evidence literature.

## 2 | Methods

A comprehensive literature search was conducted on PubMed and Scopus databases using the following key terms "burns", "severe burns", "mood disorders", and "nursing". These key terms were selected using Medical Subject Headings. Three researchers independently searched the databases from February 2024 to March 2024. The search desire focused on papers related to burns, mood disorders, and nursing care. Out of the 100 articles initially selected, those written before the year 2000, including

articles related to critical care, were excluded. Additionally, the references of the included articles were searched to extract other relevant studies. Finally, 20 studies were selected for this review [89].

## 3 | Results

### 3.1 | Role of nursing during post-burn depression

Post-burn depression is a term used to describe a psychological state that can occur after completing a significant project or event that requires prolonged periods of high mental, emotional, or physical exertion [90]. This condition has been gaining increasing attention within the psychological and occupational health communities due to its prevalence and impact on individuals, especially in high-performance environments [91].

In the other words; this condition is similar to the adjustment disorder, characterized by emotional and behavioral symptoms that occur in response to identifiable stressors. The primary difference between this condition and the adjustment disorder lies in the context of the stressors. The cessation of prolonged high-engagement activities specifically triggers post-burn depression [92]. Also, efforts to address post-burn depression include raising awareness, gradually transitioning from high- to lower-intensity activities, and implementing support systems that offer psychological and emotional support during and after intense projects [93].

The role of nursing in managing post-burn depression is crucial. It involves identifying depression early on, providing comprehensive care, and facilitating psychological rehabilitation for patients suffering from severe burn injuries [94]. This aspect of care is vital because burn injuries affect not only physical health but also mental well-being. Post-burn depression can significantly impede the recovery process, making it a significant concern. Furthermore, Korpershoek et al., (2011) reported that, nurses play a crucial role in the recovery journey of burn patients as they are at the forefront of patient care [95]. They are well-positioned to assess and observe the psychological state of patients using a holistic approach that integrates both physical and mental health care [95]. This approach recognizes the interconnectedness of bodily injury and psychological distress. By continuously assessing patients, nurses can identify early signs of depression, such as changes in eating or sleeping patterns, withdrawal, reduced motivation, or expressions of hopelessness. Early identification is critical for timely intervention and better patient outcomes [96]. Additionally, Demircelik et al., (2016) reported that the nursing intervention for post-burn depression requires a comprehensive approach that covers different aspects

[97]. In this regard, education is a vital component, where nurses educate patients and their families about the potential psychological impact of burn injuries and the significance of mental health during recovery. Emotional support, which involves empathetic communication and acknowledging the patient's feelings, helps build a therapeutic relationship that promotes psychological resilience [97].

### 3.2 | Role of nursing during post-burn PTSD

Individuals who have suffered severe burn injuries may experience PTSD, known as post-burn PTSD is characterized by ongoing psychological distress and impairment following the burns traumatic event [98]. Symptoms may include intrusive memories, flashbacks, nightmares, avoiding reminders, adverse changes in mood and thoughts, and heightened reactions to stimuli [99]. The pathophysiology of PTSD involves changes in the stress response system, such as the hypothalamic-pituitary-adrenal axis, leading to the dysregulation of stress hormones like cortisol. Additionally, there may be changes in brain structures involved in fear and emotion regulation, such as the amygdala and prefrontal cortex [100].

The role of nursing in managing post-burn PTSD is crucial to the holistic rehabilitation of burn survivors. Nurses are typically the primary caregivers who maintain continuous contact with patients throughout their recovery duration [101]. This makes them uniquely positioned to identify early signs of PTSD and provide significant support to affected individuals.

Nurses play an essential role in identifying symptoms of post-burn PTSD, utilizing their training in both physical and psychological assessment. These symptoms may include re-experiencing the traumatic event through flashbacks or nightmares, avoidance of reminders of the trauma, heightened arousal and reactivity, as well as negative changes in thoughts and mood. Early detection of these symptoms is vital for timely intervention, and nurses are crucial in recognizing them and advocating for the involvement of mental health professionals, if necessary [102].

Nurses play a crucial role in identifying PTSD in patients with burn injuries at an early stage and they provide continuous support and education to both patients and their families, which helps normalize the experience of psychological distress following burn injuries. Nurses also inform them about the symptoms, potential impacts on recovery, and the importance of psychological intervention. This educational role helps reduce stigma and encourages patients and their families to engage with mental health services [103, 104].

Nurses have a significant role in implementing personalized care plans that include strategies to manage symptoms of PTSD.

This involves providing access to psychotherapy like cognitive-behavioral therapy or eye movement desensitization and reprocessing and supporting [105] medication management as prescribed by psychiatric professionals [106].

Nurses are crucial in creating a therapeutic environment that promotes safety, trust, and emotional security. They use various strategies to reduce stress and anxiety, such as creating a calm and predictable atmosphere, utilizing relaxation techniques, and providing emotional support. This supportive care is vital for the psychological well-being of burn survivors, as it helps to reduce PTSD symptoms and support overall recovery [107].

### 3.3 | Role of nursing during post-burn anxiety

Post-burn anxiety is a common psychological condition that affects people who are recovering from burn injuries and it's characterized by persistent feelings of nervousness, worry, and fear that can significantly interfere with the healing process [108]. This condition can be caused by the traumatic experiences associated with burn injuries, such as the initial event, hospitalization, medical treatments, and the challenges of rehabilitation. Scientifically, post-burn anxiety can be categorized as an anxiety disorder, which is characterized by excessive and persistent worry that is disproportionate to the actual threat or danger presented by the individual's circumstances [109].

The need for comprehensive care approaches that address the psychological and physical aspects of recovery from burn injuries is underscored by the prevalence of post-burn anxiety [110]. Clinical management involves a combination of psychotherapy, pharmacological treatment, and supportive interventions [111].

The role of nurses in managing post-burn anxiety is crucial. They act as primary caregivers and are at the forefront of responding to the psychological needs of burn survivors. Nurses play a significant role in identifying early signs of anxiety and ensuring a comprehensive approach to care that integrates mental health support with physical recovery. Through their continuous patient interaction, they can monitor psychological responses, recognize symptoms of anxiety such as restlessness, increased heart rate, difficulty concentrating, and changes in sleep patterns, and assess their impact on the healing process [51]. Also, nurses use evidence-based practices to assist patients who are suffering from post-burn anxiety. They provide a calming presence, use relaxation techniques, and create a supportive environment that promotes emotional safety and reduces stressors. Additionally, they educate patients and families about anxiety, its impacts on recovery, and coping strategies, thereby empowering them to take an active role in managing anxiety symptoms [26].

Furthermore, nurses facilitate access to specialized mental health resources, advocating for integrating psychological care into the treatment plan. They collaborate with multidisciplinary teams, including psychologists and psychiatrists, to ensure a holistic approach to care, encompassing both psychotherapeutic interventions and pharmacological treatments as necessary [112].

#### **4 | Implications for nursing clinical practice**

The findings of this study have significant implications for nursing clinical practice, particularly in the care of patients recovering from burn injuries. The central role of nursing in identifying and managing post-burn psychological conditions such as depression, PTSD, and anxiety underscores the necessity for nurses to possess a deep understanding of these conditions and the skills to implement effective interventions. It advocates for the integration of mental health assessments into routine burn care, ensuring early detection and timely intervention for these psychological sequelae. Furthermore, the importance of education and emotional support highlighted in this study necessitates that nurses are equipped with communication skills and empathetic approaches to foster a therapeutic relationship with patients. This includes the ability to educate patients and their families about the psychological impacts of burn injuries and the coping strategies available, enhancing their participation in the recovery process. Additionally, the study supports the necessity for interdisciplinary collaboration, where nurses work alongside psychologists, psychiatrists, and other healthcare professionals to provide a holistic care model that addresses burn recovery's physical and psychological aspects. Therefore, nursing curricula and continuous professional development programs should include comprehensive training in mental health care, emphasizing the psychological aspects of burn recovery to prepare nurses for the challenges of supporting burn survivors effectively. This holistic approach promotes better patient outcomes and enhances the quality of nursing care in the clinical setting, marking a significant stride toward integrated patient-centered care in burn recovery.

#### **5 | Recommendations for future research**

The findings from this study highlight the critical role of nursing in the psychological recovery of burn survivors and point toward several avenues for future research. Firstly, there is a need for longitudinal studies to explore the long-term effectiveness of various nursing interventions in mitigating post-burn depression, PTSD, and anxiety, providing a deeper understanding of their impact on patient outcomes over time. Additionally, comparative research examining the efficacy of different psychoeducational programs

and emotional support strategies nurses implement could offer valuable insights into optimizing care for burn survivors. Investigating the benefits of interdisciplinary collaboration in the psychological rehabilitation of burn patients would also contribute significantly to the field, identifying best practices for integrating nursing care with other therapeutic modalities. Furthermore, developing and validating standardized protocols for mental health assessment in burn care nursing practice could enhance the consistency and quality of care provided to this patient population. Such research endeavors would advance nursing practice and contribute to the broader goal of improving holistic recovery outcomes for burn survivors.

#### **6 | Conclusions**

Totally our research sheds light on the various roles that nurses play in addressing the psychological aftermath of burn injuries. They are crucial in both the assessment and intervention phases of patient care. Nurses use a holistic approach that takes into account the complex interplay between physical injuries and psychological distress. By continuously engaging with patients, they can identify symptoms such as changes in mood, behavior, and cognitive responses, which are essential for timely and effective interventions. Ultimately, nurses play an indispensable role in managing post-burn depression, PTSD, and anxiety. They provide compassionate, holistic care that addresses the complex needs of burn survivors. This makes them vital in the journey toward recovery. Our findings highlight the need for the continuous development of nursing practices and the integration of psychological care into the multidisciplinary management of burn patients. This ensures a recovery process that encompasses both physical and mental health aspects.

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#### **Authors' contributions**

Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work: MRZ, MB, SR, SY, MA, RF; Drafting the work or revising it critically for important intellectual content: MRZ, MB, SR, SY, MA, RF; Final approval of the version to be published: MRZ, MB, SR, SY, MA, RF; Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved: MRZ, MB, SR, SY, MA, RF.

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## Competing interests

We do not have potential conflicts of interest with respect to the research, authorship, and publication of this article.

## Availability of data and materials

The datasets used during the current study are available from the corresponding author on request.

## Using artificial intelligent chatbots

None.

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