

Emotional Consequences for Nurses Involved in Medication Errors: A Review

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Abstract

Background: Medication errors are among the most common adverse events in healthcare, posing serious threats not only to patient safety but also to the emotional well-being of the nurses involved. Often overlooked, the psychological impact on nurses—referred to as "second victims"—can be profound and long-lasting, affecting their personal and professional lives.

Objectives: This review aims to explore the emotional and psychological consequences experienced by nurses following involvement in medication errors. It further seeks to identify contributing factors, coping strategies, and support systems available to affected nurses.

Methodology: A narrative review of literature was conducted using electronic databases including PubMed, CINAHL, Scopus, and Google Scholar. Studies published between 2013 and 2024 were reviewed using search terms such as "medication errors," "nurses," "emotional impact," and "second victim." Articles focusing on nurses' emotional experiences post-error were included, while those focusing solely on patient outcomes or other healthcare professionals were excluded.

Results: The review revealed that nurses involved in medication errors commonly experience guilt, shame, anxiety, depression, and a loss of professional confidence. Several factors—such as punitive organizational culture, lack of psychological support, and fear of legal consequences—intensify these emotional outcomes. The findings underscore the need for systemic interventions including peer support programs, access to counseling services, and the promotion of a non-punitive, learning-focused environment to help nurses recover emotionally and continue delivering safe care.

Keywords: Medication Errors, Emotional Impact, Nurses, Second Victim, Guilt, Stress, Psychological Support, Coping.

INTRODUCTION

Medication errors continue to pose a significant and persistent challenge within clinical practice, leading to serious consequences such as patient injury, prolonged hospital stays, and increased healthcare costs. These errors can result from a range of factors including system failures, high workload, inadequate staffing, miscommunication, or lapses in judgment. While much of the existing literature and institutional attention remains centered on the impact of these errors on patients—rightly prioritizing patient safety—there is a growing recognition that the emotional toll on healthcare providers, especially nurses, is substantial and often underestimated. Nurses, who are at the forefront of medication administration and patient care, are particularly vulnerable to the psychological repercussions of such incidents. When involved in a medication error, either directly or indirectly, nurses frequently experience intense emotional distress, including guilt, anxiety, fear, and professional self-doubt. The term "second victims" has been coined to describe healthcare providers who suffer emotionally in the aftermath of adverse events. These emotional consequences can significantly impair a nurse's mental well-being, job satisfaction, and professional performance, potentially leading to burnout, absenteeism, or even departure from the profession. Despite these risks, support mechanisms for affected nurses are often inadequate or

nonexistent, leaving many to cope in isolation. This review aims to bring attention to this overlooked dimension of medication errors by thoroughly examining the emotional and psychological effects experienced by nurses, identifying contributing factors to their distress, and exploring evidence-based strategies and institutional interventions that can facilitate emotional recovery and promote resilience.

Objectives

- To examine the emotional impact of medication errors on nurses.
- To identify common psychological symptoms and reactions among affected nurses.
- To analyze contributing factors to emotional distress post-error.
- To evaluate coping mechanisms and institutional support strategies.

METHODOLOGY

A comprehensive narrative literature review was undertaken to explore the emotional and psychological consequences experienced by nurses following involvement in medication errors. The review focused on scholarly articles published over an eleven-year period, from 2013 to 2024, to capture both foundational and recent developments in the field. A systematic search was conducted across multiple reputable electronic databases, including PubMed, CINAHL (Cumulative Index to Nursing and Allied Health Literature), Scopus, and Google Scholar, to ensure wide coverage of peer-reviewed research relevant to the topic. The search strategy involved the use of specific keywords and Boolean operators, such as “medication errors,” “nurses,” “emotional consequences,” “psychological impact,” “second victim,” and related terms. These search terms were selected to target literature that specifically addressed the emotional aftermath of medication errors from the perspective of nursing professionals.

The inclusion criteria for this review comprised studies that focused explicitly on the experiences, emotional reactions, and psychological outcomes of nurses following medication error incidents. Studies that examined nurses’ self-reported feelings of guilt, stress, anxiety, depression, loss of confidence, or post-traumatic symptoms were prioritized. Conversely, articles that centered exclusively on patient-related outcomes, or those that explored emotional consequences in other healthcare providers such as physicians or pharmacists, were excluded to maintain a focused scope. Preference was given to qualitative, quantitative, and mixed-method studies that provided in-depth insight into nurses’ emotional journeys, as well as institutional responses and support systems. This methodological approach allowed for a thorough synthesis of existing knowledge and helped identify key themes, gaps, and recommendations for future practice and policy development in nursing care and workplace well-being.

Emotional Impact on Nurses

Medication errors can trigger a cascade of emotional and psychological responses among nurses, many of which are deeply distressing and long-lasting. The intensity of these emotions often depends on the severity of the error, the outcome for the patient, the organizational response, and the nurse’s individual coping capacity. Below are some of the most frequently reported emotional effects.

Guilt and Shame

Guilt is one of the most immediate and profound emotional responses experienced by nurses following a medication error. Nurses often internalize the incident, experiencing a deep sense of personal responsibility—even when systemic factors contributed to the mistake. This guilt is typically accompanied by intense remorse and self-blame, where nurses question their ethical values, professional identity, and decision-making capabilities. Shame, a closely related emotion, arises when nurses fear judgment from colleagues, supervisors, and patients. The combination of guilt and shame may lead to emotional isolation, difficulty concentrating, and reluctance to discuss the incident, ultimately affecting both mental well-being and professional performance. These feelings can persist long after the event, especially in the absence of supportive intervention.

Anxiety and Depression

The fear of punitive consequences—such as disciplinary action, legal liability, or job loss—can result in ongoing anxiety, often accompanied by physical symptoms like restlessness, fatigue, and irritability. For some nurses, this anxiety becomes chronic, leading to persistent worry about making future mistakes. In more severe cases, the emotional burden may evolve into clinical depression, characterized by persistent sadness, hopelessness, loss of interest in work, and difficulty functioning in both personal and

professional settings. The high-pressure environment of healthcare, coupled with unresolved emotional trauma, places affected nurses at elevated risk for burnout and psychological breakdown if timely support is not provided.

Loss of Confidence

Following a medication error, many nurses report a significant decline in self-esteem and confidence in their clinical abilities. The incident may cause them to question their overall competence, leading to heightened self-doubt and fear of making additional mistakes. As a result, some nurses become overly cautious or hesitant in their clinical decision-making, which can compromise patient care by slowing down treatment processes or prompting unnecessary consultations. This lack of confidence can also affect communication with colleagues and patients, hinder career development, and contribute to professional disengagement or even attrition from the nursing profession.

Post-Traumatic Stress Symptoms

In particularly distressing cases—such as those involving severe patient harm or death—nurses may exhibit symptoms akin to post-traumatic stress disorder (PTSD). These can include intrusive thoughts or flashbacks of the incident, hypervigilance, insomnia, avoidance of similar clinical situations, emotional numbness, and a persistent sense of dread. These symptoms not only impair job performance but can also negatively impact personal relationships and overall quality of life. Without appropriate mental health support, such symptoms may linger for months or even years, further increasing the risk of burnout, compassion fatigue, and withdrawal from clinical duties.

Contributing Factors to Emotional Distress

The emotional toll of medication errors on nurses does not occur in isolation; it is often exacerbated by a variety of systemic and environmental factors. These contributing factors create a context in which emotional distress is intensified and prolonged. Understanding these influences is essential for developing effective organizational strategies that promote nurse well-being and prevent future harm.

Work Environment

A high-pressure work environment characterized by excessive workload, staff shortages, time constraints, and complex patient needs significantly increases the likelihood of errors. Nurses working in such conditions often experience cognitive overload and physical exhaustion, both of which impair judgment and decision-making. When errors do occur, these same stressors can hinder emotional recovery. Inadequate staffing may force nurses to return to duty immediately after an incident without time for reflection, debriefing, or rest. Moreover, poor interprofessional communication and lack of teamwork can result in fragmented care and increase the emotional burden when mistakes happen. An unsupportive or chaotic work environment can leave nurses feeling isolated, overwhelmed, and vulnerable to burnout.

Organizational Culture

The prevailing culture within a healthcare organization plays a pivotal role in shaping how medication errors are perceived and managed. In institutions where a punitive, blame-oriented culture exists, nurses are more likely to experience fear, shame, and emotional suppression following an error. Such environments discourage transparency and honest discussions about mistakes, often leading to a culture of silence. Instead of viewing errors as learning opportunities, they are treated as individual failures, which increases psychological strain on the nurse involved. Conversely, a culture that fosters trust, learning, and accountability without blame is essential for emotional healing and growth. Unfortunately, many nurses still operate in systems where error disclosure may be met with criticism, disciplinary action, or reputational damage, further compounding their emotional distress.

Lack of Support

Emotional support following a medication error is a critical yet often missing component in many healthcare settings. Nurses frequently report an absence of structured debriefing sessions, peer counseling opportunities, or access to professional psychological services. The lack of acknowledgment or empathy from supervisors and colleagues can leave affected nurses feeling abandoned and devalued. Without proper support, nurses may internalize their distress, leading to long-term psychological consequences such as depression or anxiety. The failure of institutions to implement accessible and immediate support mechanisms reinforces the perception that emotional responses are unimportant or unprofessional, deterring nurses from seeking help when they need it most.

Legal and Ethical Pressure

The legal and ethical implications of medication errors can exert enormous psychological pressure on nurses. In many cases, fear of malpractice lawsuits, disciplinary actions by licensing boards, or termination of employment contributes to heightened anxiety and ongoing emotional strain. Nurses may also grapple with ethical dilemmas, particularly when the error results in significant patient harm. The internal conflict between professional duty and personal responsibility can create feelings of moral distress and self-doubt. Furthermore, the fear of being publicly blamed or stigmatized in front of peers, patients, or the media often leads nurses to conceal their mistakes rather than engage in open reflection and dialogue. This fear-based environment not only inhibits learning but also severely hampers emotional recovery.

Coping Mechanisms and Support Systems

In the aftermath of a medication error, the availability and effectiveness of coping mechanisms and institutional support play a pivotal role in determining how well a nurse recovers emotionally and professionally. Effective coping not only helps nurses manage immediate emotional responses but also reduces the likelihood of long-term psychological consequences such as depression, anxiety, and burnout. This section highlights various strategies—both individual and organizational—that have been shown to support emotional recovery.

Peer Support

Engaging in open conversations with trusted colleagues can serve as a powerful coping strategy for nurses who have been involved in medication errors. Peer support provides emotional validation, empathy, and reassurance that the affected nurse is not alone in their experience. Informal peer discussions often allow nurses to express feelings of guilt, fear, and confusion in a safe, non-judgmental space. Some healthcare institutions have recognized the value of such support and have implemented structured peer responder programs or second victim support teams, where trained staff members offer immediate and confidential emotional assistance following an adverse event. These programs help normalize emotional responses and provide nurses with the encouragement needed to seek further help if necessary. Evidence suggests that timely peer support can reduce feelings of isolation, improve psychological well-being, and promote a quicker return to clinical confidence.

Counseling Services

Professional psychological counseling can be an essential resource for nurses struggling with intense or persistent emotional responses after a medication error. Access to licensed mental health professionals—such as psychologists, clinical social workers, or psychiatric nurses—allows for in-depth exploration of guilt, anxiety, self-blame, and moral distress. Through therapeutic techniques such as cognitive behavioral therapy (CBT), trauma-focused therapy, or mindfulness-based stress reduction, nurses can better understand and manage their emotional responses, rebuild self-confidence, and develop adaptive coping strategies. Unfortunately, counseling services are not always readily available or actively offered in many healthcare settings. To address this gap, hospitals should integrate psychological support into their employee wellness programs and encourage its use by removing stigma and ensuring confidentiality. Even short-term interventions can make a significant difference in preventing long-term emotional sequelae.

Educational Interventions

Education is a proactive tool that empowers nurses to respond to medication errors constructively. Training sessions that focus on error recognition, root cause analysis, communication strategies, and emotional resilience equip nurses with the skills to manage both the practical and emotional dimensions of adverse events. Such programs can be included in nursing orientation, continuing education, or professional development initiatives. Simulations, case studies, and role-playing exercises provide experiential learning opportunities, allowing nurses to practice difficult conversations, such as disclosing errors to patients or participating in debriefing sessions. By promoting a culture of transparency and preparation, educational interventions help nurses develop a stronger sense of control and confidence in handling challenging situations.

Organizational Interventions

A supportive organizational culture is perhaps the most critical element in fostering emotional recovery and resilience among nurses. Institutions that adopt the principles of a "Just Culture" prioritize learning and accountability over blame and punishment. In such environments, errors are viewed as opportunities

for improvement rather than grounds for disciplinary action. This cultural shift encourages nurses to report errors openly, participate in investigations constructively, and engage in system-level improvements. Key organizational strategies include conducting non-punitive incident reviews, offering routine debriefing sessions, and implementing emotional safety protocols that recognize the psychological needs of staff post-incident. Leadership plays a vital role in setting the tone—by demonstrating empathy, supporting emotional transparency, and allocating resources for staff well-being. Ultimately, a learning-focused and emotionally intelligent workplace enhances patient safety, improves staff morale, and reduces turnover.

DISCUSSION

The psychological aftermath of medication errors on nurses is both profound and multifaceted, extending far beyond the immediate clinical consequences. Nurses involved in such incidents often experience intense feelings of guilt, shame, fear, and self-doubt—emotions that can persist long after the event itself. These internal struggles not only compromise the nurse's mental and emotional well-being but may also interfere with clinical performance, reduce concentration, and increase the risk of future errors. Moreover, the emotional burden can disrupt team dynamics, foster mistrust, and negatively affect communication within healthcare teams.

Workplace morale and staff retention are also significantly impacted when emotional support is lacking. Nurses who repeatedly experience emotional distress without institutional acknowledgment or assistance are more likely to experience burnout, absenteeism, or even leave the profession altogether. Despite growing awareness, many healthcare institutions still lack appropriate frameworks or protocols to assist nurses in the aftermath of medication errors. Often, the focus remains narrowly centered on patient outcomes, overlooking the experiences of the healthcare providers who were involved.

To address this gap, a paradigm shift is needed—one that recognizes the importance of emotional safety in the clinical environment. Integrating a human-centered approach into healthcare management and policies means acknowledging nurses as individuals with emotional needs, rather than solely as clinical functionaries. This involves creating systems where mistakes are understood as opportunities for learning and improvement, not as triggers for punishment. Such an approach not only enhances nurse well-being but also contributes to safer, more resilient healthcare systems.

CONCLUSION

Medication errors represent more than just clinical misjudgments; they are emotionally charged events that can leave lasting scars on the nursing professionals involved. Nurses often suffer in silence, weighed down by feelings of guilt, shame, and fear, all while continuing to care for others. This emotional toll, if unaddressed, can have serious implications for mental health, job satisfaction, and patient safety.

Recognizing nurses as “second victims” is an essential step in advancing a more compassionate and supportive healthcare culture. It acknowledges their humanity, emotional vulnerability, and need for recovery. Without systemic recognition and intervention, the psychological wounds incurred from such incidents can deepen, leading to long-term professional and personal consequences.

It is, therefore, imperative for healthcare organizations to implement comprehensive strategies that not only prevent medication errors but also address the emotional impact when they occur. This includes creating a culture of psychological safety, providing access to peer and professional support, and encouraging openness without fear of retribution. Only through such collective efforts can we promote a resilient, empathetic, and effective nursing workforce.

Recommendations

To ensure a supportive and emotionally healthy environment for nurses following medication errors, the following evidence-based recommendations are proposed:

- Establish formal second-victim support programs: Healthcare institutions should develop structured support systems specifically designed to assist nurses who experience emotional distress following

medication errors. These may include peer responder teams, debriefing sessions, psychological first aid, and access to mental health professionals.

- Promote a non-punitive, learning-focused organizational culture: Institutions must shift from a culture of blame to one of continuous improvement. This involves fostering trust, encouraging error reporting without fear of punishment, and using adverse events as learning opportunities to improve systems and processes.
- Integrate emotional resilience and error management into nursing curricula: Nursing education programs should incorporate training on coping strategies, emotional intelligence, ethical decision-making, and effective communication following clinical errors. Early exposure to these topics can better prepare future nurses to handle real-world challenges with confidence and compassion.
- Encourage open communication and routine debriefings after adverse events: Hospitals and clinics should institutionalize post-incident discussions where staff can reflect on what went wrong, share emotional experiences, and identify systemic improvements. These sessions should be constructive, inclusive, and focused on team learning and healing.
- Provide leadership training on emotional intelligence and support: Nurse managers and healthcare leaders should be trained to recognize signs of emotional distress, respond with empathy, and advocate for staff well-being. Compassionate leadership is key to cultivating a culture where emotional safety is prioritized.
- Ensure easy access to confidential counseling and psychological support: Organizations must offer accessible, stigma-free mental health resources as part of their employee wellness programs. These services should be well-publicized, confidential, and available during and after working hours.

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