

Factors Influencing Burnout and Intervention Strategies among Emergency Nurses: A Review

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Abstract: *Emergency departments are characterized by the highest levels of stress, the greatest frequency of emergencies, and the most prevalent nurse-patient conflicts within hospitals. Prolonged exposure to high workloads and intense pressure places emergency nurses at elevated risk for burnout. Burnout not only severely affects nurses' physical and mental health and job satisfaction, but also directly compromises nursing care quality and increases the risk of medical errors. This article systematically reviews the conceptual definition, prevalence, and three-dimensional manifestations of burnout among emergency nurses (emotional exhaustion, depersonalization, and reduced personal accomplishment), with a focus on analyzing key influencing factors including workload, nurse-patient relationships, organizational support, role conflict, and compassion fatigue. Effective intervention strategies at individual, team, and organizational levels are summarized from both domestic and international literature, including Balint groups, mindfulness-based stress reduction, flexible scheduling, and psychological capital building. This review aims to provide theoretical references and practical guidance for emergency nursing managers and clinical nurses.*

Keywords: *emergency nurses, burnout, influencing factors, intervention strategies, review*

1. Introduction

The emergency department (ED), as the hospital's frontline, bears the responsibility of providing 24-hour continuous care for critically ill and severely injured patients. Its work environment is characterized by unpredictability, time urgency, diverse clinical presentations, and a high incidence of workplace violence. In recent years, with the sustained growth in emergency department visits and the ever-increasing public expectations for medical services in China, the pressures faced by emergency nurses have been escalating rapidly.

Burnout, first introduced by American psychologist Maslach in 1976, is defined as a state of physical, emotional, and spiritual exhaustion resulting from prolonged engagement in emotionally demanding work. For emergency nurses, burnout is not merely a personal emotional issue but a systemic management concern related to patient safety and the stability of the nursing workforce.

Multiple surveys indicate that the burnout detection rate among emergency nurses in China ranges from 60% to 80% [1], which is significantly higher than that of nurses in general medical or surgical wards. However, most hospitals in China still provide only superficial attention to the mental health of emergency nurses, lacking a systematic and sustainable intervention framework.

By integrating high-quality domestic and international literature from the past decade, this article provides a systematic review of the conceptual models, influencing factors, and effective intervention strategies for burnout among emergency nurses, aiming to offer evidence-based references for clinical nursing management.

2. Concept Definition and Measurement Tools

2.1. Conceptual Evolution and the Three-Dimensional Model

The three-dimensional model of burnout proposed by Maslach et al. remains the dominant framework to this day [2]

- 1) Emotional Exhaustion: This refers to the feeling that emotional resources are depleted and that one

lacks vitality for work. It constitutes the core dimension of burnout and the most apparent sign of stress. Emergency nurses often exhibit symptoms such as feeling exhausted at the mere thought of going to work in the morning and becoming indifferent to patients' cries and pleas.

2) Depersonalization: This involves adopting a cold, distant, and mechanized attitude toward patients and their families. In the emergency setting, it may manifest as avoiding eye contact with patients, referring to patients by bed numbers instead of names (e.g., "Bed 23"), or showing a lack of empathic response to patients' suffering.

3) Reduced Personal Accomplishment: This refers to the tendency to evaluate oneself negatively, believing that one's work is meaningless or that one lacks competence. It is commonly observed among highly educated and highly responsible young nurses, particularly following unsuccessful resuscitation attempts.

2.2. Commonly Used Measurement Instruments

Maslach Burnout Inventory – Human Services Survey (MBI-HSS): The healthcare version consists of 22 items divided into three subscales and is currently recognized internationally as the gold standard [2]

Chinese Version of the Nurse Burnout Scale (NBS): Revised by domestic scholars, this scale includes additional items suited to the Chinese healthcare environment (e.g., pressure from professional title promotion and fear of medical disputes).

Brief Burnout Scale (BMS): Containing only 4 to 5 items, this scale is suitable for rapid screening.

While this review does not require raw data, understanding these tools facilitates comprehension of the evaluation logic for subsequent influencing factors and intervention outcomes.

3. Prevalence and Characteristics of Burnout Among Emergency Nurses

3.1. High Detection Rate and Trend toward Younger Demographics

Research conducted both domestically and internationally consistently demonstrates that the burnout level among emergency nurses is significantly higher than that among nurses in internal medicine, surgery, obstetrics, and gynecology departments. The specific characteristics are as follows: [1]

Highest scores in Emotional Exhaustion: Most studies report that the emotional exhaustion dimension scores of emergency nurses fall within the moderate to severe range, particularly during months with frequent night shifts and intensive resuscitation efforts [3]

Concealed Depersonalization: Depersonalization is often mistaken for "professional composure." However, excessive depersonalization can evolve into nursing indifference and may even trigger nurse-patient conflicts.

A "U-shaped" Distribution of Personal Accomplishment: Newly hired nurses with 1 to 3 years of experience report the lowest sense of accomplishment due to the gap between ideals and reality. Nurses with 5 to 8 years of experience a recovery in accomplishment through skill mastery. However, nurses with more than 10 years of experience who lack promotion opportunities again experience a decline in accomplishment.

3.2. Differences across Subgroups

Gender: Although male emergency nurses are few in number, due to their greater involvement in physically demanding resuscitation tasks and societal role expectations, their emotional exhaustion scores may exceed those of female nurses.

Educational Background: Nurses with a bachelor's degree or above experience more pronounced reductions in personal accomplishment, which is related to their higher self-expectations and limited career development opportunities.

Employment Type: Contract nurses face a higher burnout risk than permanently employed nurses, primarily due to perceived organizational inequities such as unequal pay for equal work and narrow promotion pathways.

4. Core Influencing Factors of Burnout Among Emergency Nurses

Synthesizing the literature, the influencing factors can be categorized into four major domains: work characteristics, interpersonal relationships, organizational management, and individual psychology.

4.1. Work Characteristics

4.1.1. Excessive Workload and Time Pressure

Emergency nurses handle a far greater number of cases and perform a significantly higher number of procedures per unit of time compared to nurses in general wards. Additionally, emergency work exhibits a "peak and trough" pattern — hours of high-intensity resuscitation may be followed by sudden lulls, only to shift back to emergency mode at any moment. This unpredictable and fluctuating pattern of demand can easily deplete energy reserves [1]

4.1.2. Frequent Night Shifts and Circadian Rhythm Disruption

Emergency departments require rotating shifts, often in three or even two shifts. Prolonged night shift work leads to sleep disorders and abnormal cortisol rhythms, which in turn exacerbate emotional instability and cognitive fatigue. Research indicates that working ≥ 6 night shifts per month is an independent risk factor for emotional exhaustion [5]

4.1.3. Occupational Exposure and Physical Safety Threats

Emergency nurses face the highest probability of exposure to blood, body fluids, and sharp instruments. Following occupational exposures (needlestick injuries, splashes), the required prophylactic medication and the lengthy follow-up period can independently induce psychological stress and burnout. Furthermore, incidents of workplace violence against healthcare workers frequently occur in the ED, and the sustained state of vigilance arising from physical safety threats constitutes a significant hidden cost.

4.2. Interpersonal Relationship Factors

4.2.1. Strained Nurse-Patient Relationships

Emergency patients and their families often exhibit anxiety, anger, or even aggressive behavior due to sudden illness onset, long waiting times, and insufficient understanding of their medical condition. When nurses repeatedly encounter disrespect, verbal abuse, or even physical assault — unable to retaliate verbally or physically — their emotional labor becomes immense. This conflict between being "forced to remain courteous" and experiencing genuine anger is a direct driver of depersonalization.

4.2.2. Poor Physician-Nurse Collaboration

Emergency physicians also work under intense time pressure. Some communicate with nurses in a commanding or reprimanding tone, lacking awareness of teamwork. When nurses feel their professional opinions are not respected and that they are treated merely as "tools," their sense of personal accomplishment can decline sharply.

4.2.3. Lack of Peer Support

In a high-pressure environment, if colleagues fail to support one another (e.g., refusing to share resuscitation duties or deflecting responsibility), the individual may become isolated. Conversely, strong collegial support is one of the most powerful buffering factors against burnout.

4.3. Organizational Management Factors

4.3.1. Unfair Performance Distribution

In most hospitals, performance bonuses are tied to departmental revenue. Due to the limited chargeable services and heavy public welfare responsibilities in the emergency department, emergency nurses' bonuses are generally lower than those in operating rooms, ICUs, and other departments. This "high risk – low income" mismatch can provoke intense feelings of inequity.

4.3.2. Narrow Promotion Pathways

Advancement in nursing professional titles requires research publications and projects. However, emergency nurses, who are primarily engaged in hands-on clinical operations, find it difficult to allocate

time for research. Many outstanding clinical nurses are unable to advance due to insufficient publications, leading to a negative mindset such as "no matter how well I work, it won't make a difference."

4.3.3. Inflexible Scheduling

Some nurse managers adopt rigid rotation schedules without accommodating the individual needs of nurses during lactation, those with long commutes, or those with poor health. Rigid scheduling can make nurses feel controlled and uncared for.

4.4. Individual Psychological Factors

Compassion Fatigue: Emergency nurses are frequently exposed to death, severe injuries, and grieving families. Prolonged over-expenditure of empathy can lead to decreased compassion, which is an important precursor to emotional exhaustion.

Type A Personality: Nurses with a Type A personality — characterized by a strong sense of time urgency, competitiveness, and impatience — are more prone to burnout.

Maladaptive Coping Strategies: Nurses who tend to use avoidance, self-blame, or substances (e.g., tobacco, alcohol, or sedatives) when faced with stress face a significantly elevated burnout risk. In contrast, nurses who adopt positive reframing, seek social support, or use humor as coping strategies demonstrate lower burnout levels even under comparable stress.

5. Intervention Strategies for Burnout Among Emergency Nurses

Based on Bronfenbrenner's ecological systems theory, interventions should cover three nested levels: individual, interpersonal, and organizational. The following strategies have been validated in the literature and are suited to the Chinese emergency nursing context.

5.1. Individual-Level Interventions

5.1.1. Mindfulness-Based Stress Reduction (MBSR)

Mindfulness training guides individuals to focus on the present moment and to accept their feelings without judgment, significantly reducing emotional exhaustion and depersonalization. In the emergency department, brief mindfulness practices can be implemented: a 3-minute breathing grounding exercise before each shift, or a 1-minute body scan after resuscitation. Existing randomized controlled trial evidence shows that an 8-week program (weekly group practice plus 10 minutes of daily individual practice) can notably improve stress hormone levels and burnout scores.

5.1.2. Psychological Capital Building

Psychological capital encompasses four elements: self-efficacy, hope, optimism, and resilience. Interventions can be delivered through group counseling, for example:

"Success Experience Sharing": Each nurse takes turns describing a successful nursing procedure or a challenging problem they resolved during the week, thereby enhancing self-efficacy.

"Best Possible Self Visualization": Nurses are guided to imagine themselves as outstanding emergency specialists five years from now, then to work backward to identify what steps need to be taken from the present, thereby strengthening hope.

5.1.3. Emotion Management and Cognitive Reframing

Applying principles from Rational Emotive Behavior Therapy (REBT), nurses are helped to identify and challenge irrational beliefs, for example:

Irrational belief: "I must be perfect in every resuscitation, or I am a failure."

Reframed belief: "Resuscitation is a team effort. I can perform at my best within my professional scope, and outcomes are influenced by multiple factors."

5.2. Team-Level Interventions

5.2.1. Balint Group

A Balint group is a case discussion forum focused on the physician-patient or nurse-patient relationship. Eight to twelve nurses (potentially mixed with physicians) form a group led by a facilitator. One nurse presents a recent nurse-patient interaction that caused them distress (clinical technical issues are not discussed; only emotional responses are explored). Group members take turns expressing what they would feel if they were the nurse in question and what they believe the patient might be thinking. The facilitator does not provide solutions but helps group members understand the psychological dynamics underlying the patient's behavior from multiple perspectives.

Domestic ED application outcomes: After 10 Balint group sessions (once weekly, 90 minutes per session), participating nurses' depersonalization scores decreased by 40%, and empathic ability improved significantly [4]

5.2.2. Critical Incident Stress Management (CISM)

For major adverse events experienced by the emergency department (e.g., child death, mass poisoning incident, a colleague being stabbed), CISM should be initiated within 24 to 72 hours following the event. The process includes:

Defusing: Within hours of the event, a psychological counselor leads the involved individuals in a 30- to 45-minute informal discussion, focusing primarily on emotional catharsis and psychological first aid.

Formal Debriefing: Two to three days after the event, a 2- to 3-hour structured group discussion is conducted following the "facts-thoughts-reactions-symptoms-education" format, with referral information provided upon conclusion.

5.2.3. Peer Support System

Within the department, psychologically trained "peer supporters" are selected to provide first-line listening and support to colleagues in need. The advantages of peer support include: de-authoritization, high accessibility, and reduced stigma associated with seeking help. To protect peer supporters themselves, departments should provide regular supervision and stress-relief mechanisms for them.

5.3. Organizational-Level Interventions

5.3.1. Optimizing Scheduling Systems

Implement flexible scheduling: Allow nurses to select their preferred shift combinations (e.g., committing to a fixed night shift for one month followed by several days off, rather than rotating frequently), provided basic staffing requirements are met.

Set night shift upper limits: Limit monthly night shifts to no more than 6, restrict consecutive night shifts to no more than 3 days, and ensure 48 hours of recovery time after night shifts.

Establish "resource nurses": During peak hours, assign an additional nurse who is not assigned to a specific resuscitation bed, responsible for assistance, shift coverage, and handling auxiliary tasks, thereby alleviating individual workload overload.

5.3.2. Performance and Professional Title Reform

Adjust emergency performance weighting: Incorporate workload, acuity of critical cases, night shift frequency, and responses to violent incidents into performance calculations, and establish special position allowances for the emergency department.

Create "clinical alternative" pathways for nursing titles: Allow emergency nurses to substitute high-quality clinical case reports, nursing quality improvement projects, and procedural standard videos for part of the publication requirements, thereby valuing actual clinical competence.

5.3.3. Cultivating a Culture of Safety and Respect

Hospital-wide zero-tolerance policy for workplace violence: Hospitals should establish police coordination mechanisms, legally handle incidents of assault or verbal abuse against nurses, and publicly disclose the outcomes — providing institutional security for nurses.

Manager daily supportive behaviors: Nurse managers should "act promptly in three ways" — promptly appearing at resuscitation scenes to assist, promptly listening to nurses' concerns without interruption, and promptly escalating nurses' needs to higher management rather than simply assigning more tasks.

5.3.4. Establishing an Emergency Department Psychological decompression Room

Designate a soundproofed, warmly decorated room within the emergency department, equipped with massage chairs, soothing music, tea, and stress-relief outlets (e.g., punching bags). Nurses are permitted to use it during breaks and may enter for a mandatory 15-minute rest period following significant resuscitation events. This facility should be positioned as a universal employee benefit rather than as a sign of poor performance.

6. Discussion and Prospects

6.1. Limitations of Current Intervention Research

Although existing literature offers abundant intervention strategies, their application to emergency nursing contexts still faces the following challenges:

1) Poor sustainability of interventions: Most studies involve short-term programs (e.g., 8-week mindfulness training). After the program concludes, there is a lack of consolidation mechanisms, making effects prone to decay.

2) Insufficient organizational support: Individual-level interventions (e.g., mindfulness) can only enhance personal coping capacity. However, if systemic issues such as workload, scheduling, and performance distribution remain unaddressed, burnout will persist or recur. Very few hospitals currently implement complementary organizational-level reforms alongside individual interventions.

3) Lack of cost-effectiveness analyses: When managers invest human and material resources in interventions such as Balint groups and psychological decompression rooms, they need concrete data on reduced nurse turnover and decreased medical errors to sustain resource allocation. Empirical data in this area is relatively scarce.

6.2. Future Research Directions

Develop tiered intervention models: Formulate differentiated intervention packages for nurses with low, moderate, and high levels of burnout (e.g., mild burnout primarily addressed through self-help manuals; moderate burnout supplemented with group discussions; severe burnout addressed through one-on-one counseling and work schedule adjustments).

Explore technology-assisted tools: Develop smartphone applications suitable for the fragmented time patterns in the emergency department, offering micro-mindfulness exercises, anonymous peer support communities, self-administered burnout assessments, and intelligent early-warning functions.

Prioritize nurse manager leadership training: A substantial body of research indicates that nurse managers' supportive leadership style is a powerful predictor of departmental burnout levels. Future efforts should include specialized "burnout management leadership" training programs for nurse managers.

6.3. Conclusion

Burnout among emergency nurses is a multi-factorial, multi-level systemic issue that cannot be fundamentally resolved by simply advising nurses to "be tougher." Effective management requires a three-pronged approach: individual psychological resilience training, team-based emotional support mechanisms, and organizational management optimization. For emergency nursing managers, nurses' mental health should be positioned at the same level of importance as patient safety. For emergency nurses themselves, the stigma of equating "asking for help" with "weakness" should be dismantled, and departmental support resources should be actively utilized. Only when nurses are well cared for can they in turn care well for their patients; only when burnout is acknowledged can nursing quality truly be ensured.

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