

## Review

# Traumatic incident among nurses in the emergency department: A concept analysis

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## ABSTRACT

**Background:** The term “traumatic incidents” (TI) has been utilized in the healthcare setting; however, the definition and dimensions among emergency department (ED) nurses remain unclear. This concept analysis was to clarify the concept of TI among nurses in the ED by defining its attributes, antecedents, consequences, and empirical references specifically tailored to nurses in the ED.

**Methods:** A concept analysis using the Walker and Avant approach was conducted to investigate TI among nurses in the ED.

**Results:** TI among nurses in the ED encompasses physically and emotionally distressing events encountered during their duties. The two defining attributes include nurses in the ED frequently exposed to sudden and unexpected events involving patients’ suffering or life-threatening conditions and subjective reactions and the experiences of ED nurses.

**Conclusion:** A clarified understanding of antecedents, attributes, consequences, and the definition of TI among nurses in the ED can pave the way for a robust and reliable measurement tool, facilitating the assessment of such incidents within this specific nursing context. This contribution holds significant promise for advancing nursing and research.

## 1. Introduction

Traumatic incidents (TI) among nurses in the emergency department (ED) are a global concern [1]. The National Institute of Mental Health [2] defines TI as shocking, scary, or dangerous experiences that can have emotional and physical effects on individuals. Nurses working in the ED are at risk of encountering TI due to the nature of their work [3–5]. Emergency nurses play a pivotal role in providing immediate and critical care to patients. However, the nature of their work exposes them to a spectrum of TI that can significantly impact their well-being and professional performance [4]. Adriaenssens et al. (2012) [6] found that during the preceding six-month period, 87 % of emergency nurses reported exposure to more than one TI. Furthermore, a significant proportion of emergency nurses, specifically 28.7 %, demonstrated clinical levels of exhaustion.

TI has a significant impact on emergency nurses’ mental, emotional, and physical well-being, as well as their professional performance [6,7]. Exposure to trauma can result in psychological distress, including symptoms of anxiety, depression, and post-traumatic stress disorder

(PTSD), contributing to burnout and diminished job satisfaction [8–10]. The emotional toll may impair concentration and decision-making abilities, affecting the quality of patient care [11,12]. Physically, stress-related symptoms such as headaches and sleep disturbances can emerge [13,14]. The risk of burnout is heightened, leading to potential turnover within the profession [9,15]. Moreover, TI can strain personal relationships and contribute to secondary trauma [11,16]. Addressing these impacts requires a policy and intervention to support mental health, work safety, and the environment.

In terms of factors related to TI among nurses in the ED, the nature of emergency situations, characterized by high acuity cases and unpredictability, contributes to the exposure of nurses to distressing events [17]. Additionally, the ED work environment, which is characterized by heavy workloads and inadequate staffing, exacerbates the stressors that nurses experience [18–20]. Patient interactions, such as encounters with violence, aggression, and death, further contribute to the TI [21]. Personal coping mechanisms and past experiences, as well as organizational factors such as the availability of support systems and training, influence how nurses respond to these challenges [22–24]. The lack of adequate

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support, the potential stigma around mental health, and communication challenges within the interdisciplinary team also play significant roles in shaping the impact of TI on nurses in the ED [25–27]. Addressing these challenges is essential for developing effective strategies to support the well-being of emergency nurses. This concept analysis highlights the necessity of delving into the complexities surrounding TI in emergency nursing.

2. Methods

To investigate TI among nurses in the ED, Walker and Avant [28] eight-step concept analysis framework was utilized, which is considered appropriate for concept analysis in nursing literature that includes 1) select a concept, 2) determine the purpose of analysis, 3) identify all uses of the concept, 4) determine the defining attributes, 5) identify model cases, 6) identify borderline and contrary cases, 7) identify antecedents and consequences of the concept, and 8) define the empirical referents. Keywords such as 'traumatic incidents,' 'emergency department,' 'emergency nursing,' 'occupational stress,' 'workplace violence,' 'PTSD,' 'mental health impact,' 'coping mechanisms,' 'resilience,' 'occupational hazards,' 'psychological well-being,' 'healthcare professionals,' 'compassion fatigue,' and 'burnout' guided the literature search. The analysis used Boolean operators for effective string construction to focused on specific aspects of TI in the ED. The search encompassed databases including CINAHL, ScienceDirect, PubMed, and PsycINFO (Fig. 1).

3. Results

3.1. Select a concept

Walker and Avant [28] emphasize the importance of thoroughly examining the significance of a concept across various settings before selecting it. The chosen concept should align with the area of interest addressed in the research question. TI among nurses in the ED is the selected concept for this concept analysis.

3.2. Determine the purpose of the analysis

The purpose of this analysis was to clarify the concept of TI among nurses in the ED by defining its attributes, antecedents, consequences, and empirical references specifically tailored to nurses in the ED.

3.3. Identify all uses of the concept

According to Walker and Avant [28], thoroughly analyzing a concept involves exploring its diverse applications, encompassing both implicit and explicit uses, and consult a variety of sources. Broaden your perspective beyond nursing or medical literature to capture richer meanings. TI can be defined as follows: The Collins Dictionary defines TI as experiences that are very shocking and upsetting and may cause psychological damage [29]. The National Institute of Mental Health [2] defines TI as a shocking, scary, or dangerous experience that can affect someone emotionally and physically. TI, such as natural disasters,

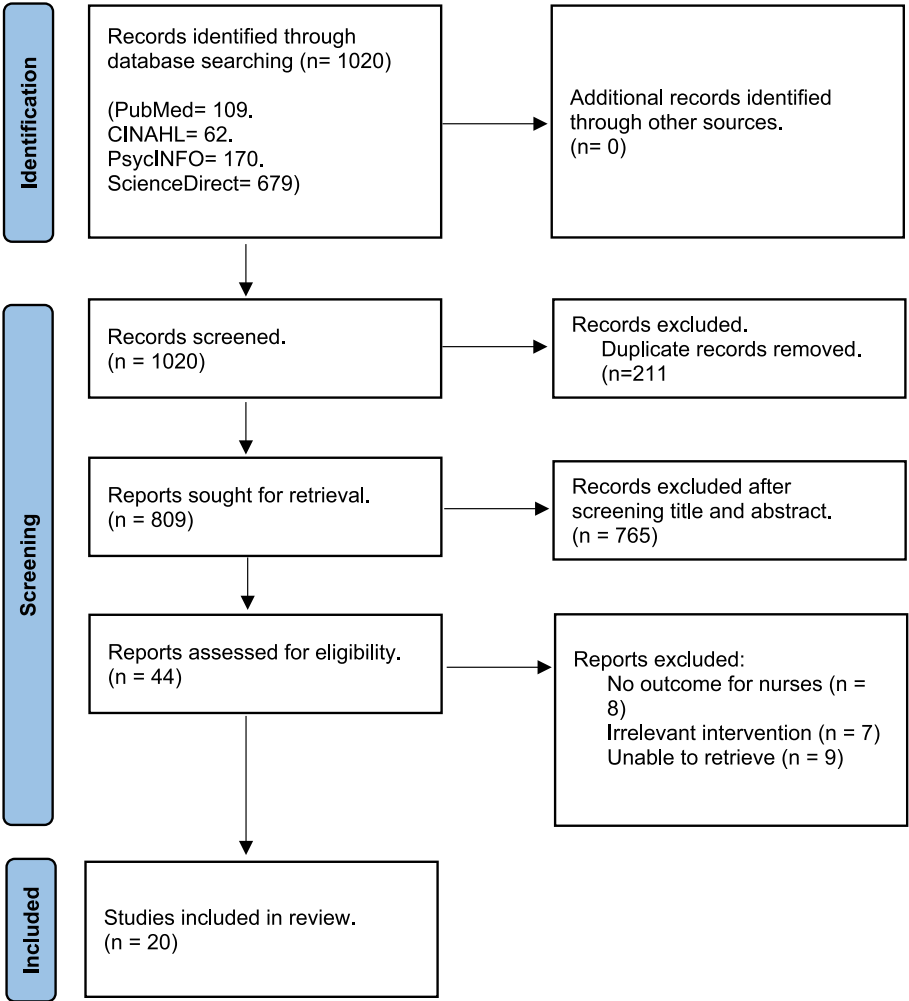


Fig. 1. PRISMA diagram of search strategies of traumatic incidents among nurses in the emergency department.

violence, and accidents, can cause emotional and physical distress. Post-traumatic reactions may include anxiety, depression, and difficulty concentrating. If symptoms persist, it is crucial to seek professional help. Physical symptoms may include headaches, stomach pain, and difficulty sleeping. Additionally, TI is defined as events that provoke strong emotional reactions in the individual [30].

### 3.4. Determine the defining attributes

The essence of concept analysis lies in identifying the defining attributes of a concept, revealing its most prominent characteristics or precise definition [28]. Upon examining the relevant literature, two key attributes associated with TI among nurses in the ED were identified: 1) exposure to sudden and unexpected events in the ED and 2) subjective reactions and experiences.

#### 3.4.1. Sudden and unexpected events in the ED

Unexpected events refer to occurrences or incidents that were not foreseen or anticipated. These events often happen suddenly and can be surprising or unplanned [29]. Nurses in the ED frequently encounter sudden and unexpected events involving patients' suffering or life-threatening conditions, such as cardiac arrests, severe trauma cases, and acute medical crises. These events can lead to heightened TI among nurses in the ED [6,31].

#### 3.4.2. Subjective reactions and experiences

Emergency nurses are frequently exposed, as part of their job [16], to life-threatening conditions such as public health emergencies like the coronavirus epidemic, sudden patient deterioration and death, and verbal abuse, with the most profound impact stemming from verbal abuse, threats, the sudden death of young adults, and child fatalities [32,33]. Subjective reactions and experiences refer to nurses' emotional and psychological responses to TI, shaped by individual coping mechanisms and prior experiences [6]. In the ED, nurses often face feelings of fear, stress, sadness, or hopelessness when dealing with sudden deaths, severe trauma, or workplace violence [6,31,34,35]. These responses are due to the high pressure of the ED environment which contributes significantly to the development of TI.

### 3.5. Identify a model case

A model case is an example that explains all the defining attributes of a concept. It derives from real life, is found in the literature, and is constructed by the researcher [28]. The following describes a fictitious scenario, representing a model case in which an emergency nurse is experiencing a TI.

Sabina, a nurse in the ED, encountered a mass casualty incident during her shift. Among the injured was a 5-year-old child who tragically lost his leg in a car accident. She saw the child crying in pain from the injury, and when the pain subsided, the child smiled brightly, unaware that he had lost his leg. Despite the overwhelming situation, Sabina coped effectively, sought debriefing afterward, and maintained high-quality patient care. However, after her shift ended, the incident lingered in her mind, leaving her feeling deeply saddened and experiencing stress and difficulty sleeping.

This is considered a model case due to Sabina's experience with a TI, including exposure to a sudden and unexpected event and patients suffering from life-threatening conditions in the ED. Consequently, she reflected on the TI to which she had been exposed. This led to heightened stress and difficulty sleeping, subsequently impacting the overall quality of her life.

### 3.6. Identify borderline and contrary cases

#### 3.6.1. Borderline case

Anna has been a registered nurse in the ED for six months and still

has limited experience in this emergency setting. While on duty, the ED became overwhelmed with numerous emergent patients one day. Despite doing her best, Anna felt disheartened and discouraged, mainly when dealing with critically ill patients, which left her feeling sad and unsure about her ability to care for them. However, after her shift, she talked to her colleagues, who offered her advice and encouragement. With their support, Anna began to feel better; her mood improved significantly, and she no longer experienced any lingering negative emotions.

This borderline case exemplifies a situation where the nurse exhibits most defining attributes of a TI in the ED, but there are notable differences in the intensity of coping mechanisms and the lasting impact on well-being compared to the model case.

#### 3.6.2. Contrary case

James, an emergency nurse, had worked for several years without encountering TI. Despite the high-pressure environment, he consistently maintained a calm demeanor and reported minimal emotional distress, even during critical situations. James did not feel the need for debriefing sessions or additional support, as he believed that such incidents were an inherent part of the job, and he managed them effectively without significant emotional impact.

James is a contrary case as he has worked in the ED for several years without facing TI. Despite the high-pressure environment, he maintains a calm demeanor, experiences minimal emotional distress, and believes such incidents are manageable without the need for debriefing or additional support, contrary to the typical expectations in this setting.

### 3.7. Identify the antecedents and consequences

Identifying the antecedents and consequences of a concept can reveal social contexts and refine defining attributes. Antecedents are events before concept occurrence, while consequences are outcomes [28]. The antecedents of TI among nurses in the ED include the nature of the ED environment, patients' severity, workplace violence, a lack of training and resources, and personal factors. These will now be explained in the following sections.

#### 3.7.1. Antecedents

In the environment of the ED, characterized by its bustling and overcrowded nature, workplace violence is a pervasive concern, escalating the stress levels for emergency nurses [36–39]. They routinely encounter TI, contributing to heightened work-related stress and potential burnout [4,40,41]. Patients presenting with severe conditions, such as trauma or psychological issues, further exacerbate this stress as nurses grapple with the emotional toll of high-acuity care [15,42,43]. Compounding these challenges are limited resources and training in ED preparedness, exacerbating the risk of TI [40,44]. Despite these pressures, individual factors like coping mechanisms and resilience can influence nurses' responses to such incidents [45,46]. Interventions targeting secondary traumatic stress management have been proposed to support emergency nurses in managing the impact of TI [46].

#### 3.7.2. Consequences

TI among ED nurses significantly affects their physical, psychological, work-related, and quality of patient care domains. Physically, the stress linked to these incidents correlates with cardiovascular issues and sleep disturbances [47,48]. Moreover, violence against ED nurses results in physical injuries, long-term musculoskeletal disorders, and chronic stress, impacting cognitive function and overall health [49]. These consequences underscore the urgency of implementing measures to address and mitigate the toll of TI in the ED. Psychologically, exposure to TI increases the risk of PTSD, anxiety, and depression, posing a considerable mental health challenge [6,9]. Work-related consequences encompass burnout, marked by emotional exhaustion and diminished job performance, contributing to increased rates of absenteeism and the

potential for staff shortages [1,50]. Additionally, these effects also include decreased job satisfaction and increased turnover rate among staff in the ED [40]. Most importantly, these effects also impact the quality of patient care, as ED nurses dealing with TI may struggle with decision-making and communication, which can affect patient safety [16,40]. A summary of identified antecedents, attributes, and consequences of traumatic incidents among nurses in the ED is provided in Table 1.

3.8. Define the empirical referents

Empirical referents are categories of actual phenomena that demonstrate the occurrence of a concept’s defining attributes. They are essential in instrument development and practice, as they provide clinicians with clear, observable phenomena to determine the concept’s existence in specific clients [28]. The literature review found that the Traumatic and Routine Stressors Scale on Emergency Nurses (TRSS-EN7) is used to determine traumatic incidents in nurses working in the ED. The TRSS-EN7 is a 13-item measure that assesses the frequency and severity of common traumatic events and routine stressors in emergency nurses’ daily work practices over the past 6 months. The measure uses a 7-point Likert-type scale to rate the frequency of exposure and the emotional impact of the stressful event, providing six indices for evaluation [51]. Moreover, there are some empirical references that are categories of phenomena that provide evidence of the existence of the concept, for example, the Impact of Events Scale-Revised (IES-R) is a 22-item self-administered questionnaire measuring secondary traumatic stress [11]. The Maslach Burnout Inventory (MBI) for measures burnout uses 22-items on emotional exhaustion, depersonalization, and personal accomplishment, with 7-point Likert ratings [9]. The PTSD Checklist-Civilian Version (PCL-C), developed in 1991, measures PTSD diagnosis by assessing repeated occurrences, avoidance symptoms, and increased alertness, with a score of 38 or higher indicating a higher stress disorder [32].

4. Discussion

The workplace has identified its ED as having one of the highest risks of violence towards staff [52]. In this environment, emergency nurses are more likely to encounter both verbal and physical violence compared to their counterparts in other healthcare professions [53,54]. Additionally, these nurses routinely confront work-related TI and operate in challenging work conditions [6]. The purpose of this concept analysis was to clarify the concept of TI among nurses in the ED by defining its attributes, antecedents, consequences, and empirical references specific to nurses in the ED.

The first defining attribute of TI among nurses in the ED is “exposure to sudden and unexpected events in the ED.” Sudden and unexpected events in the ED are often referred to as “critical incidents” or “emergent situations.” These can include medical emergencies, trauma cases, violence, or any unforeseen circumstances that require immediate attention and intervention by healthcare professionals in the emergency setting [6]. Emergency nurses are constantly exposed to sudden and unexpected events in the ED as part of their jobs and the nature of the ED

[6,31]. Another defining attribute is “subjective reactions and experiences.” TI is characterized by nurses’ individual emotional and psychological responses, shaped by their subjective interpretation of the events. Nurses working in the ED regularly encounter and deal with individuals who are undergoing significant distress or facing potentially life-threatening conditions. This exposure involves providing care, assistance, and intervention in response to urgent medical needs and critical situations. This occurrence can impact the quality of patient care and interpersonal relationships among colleagues and could potentially lead to more serious mental health issues such as post-traumatic stress disorder (PTSD), anxiety, or depression [33]. Although psychological consequences such as PTSD often follow traumatic incidents, this concept analysis emphasizes the antecedent events like sudden and unexpected events and the nurse’s subjective experience as central to the definition. The concept of TI is thus distinguishable from its sequelae and justifiable as a stand-alone entity. Nurses working in the ED often face sudden and unexpected events. Each nurse’s response to such events may vary depending on their past experiences and perceptions, which can affect them both physically and mentally. These impacts differ from person to person. Organizations should provide support through programs and policies aimed at preventing and reducing the effects of TI while promoting practices that help nurses manage and mitigate their impact. In summary, a traumatic incident among nurses in the emergency department is defined as a sudden and unexpected event that is related to patients suffering or life-threatening conditions that elicit significant emotional or psychological responses from the emergency nurse.

This finding aligns with the violence against nurses in the ED. However, TI encompasses more than just acts of violence in this setting; they also extend to include shocking, scary, or hazardous experiences that can have emotional and physical repercussions [2]. TI, ranging from natural disasters to violence and accidents, have the potential to induce emotional and physical distress, manifesting as conditions like PTSD, anxiety, depression, stress, or sleep problems [6,9]. Conflicting viewpoints within the current academic discourse have made it challenging to precisely identify the specific characteristics and outcomes linked to TI experienced by nurses in the ED. Some research employs terms with similar meanings, such as traumatic incidents, traumatic events, critical incidents, critical clinical events, and psychological traumatic experiences [4,6,12,31,55]. Nevertheless, this cluster of terms comprises words with similar meanings, which might vary somewhat depending on the context and the specific aspect of each piece of literature under consideration.

The concept analysis of TI among nurses in the ED holds significant implications for both nursing practice and research. For nursing practice, understanding and addressing TI are crucial for enhancing nurses’ coping mechanisms, resilience, and overall well-being. This awareness can contribute to improved patient care quality and the development of targeted support systems, training programs, and peer support within the nursing profession. In terms of research, investigating TI clarifies the concept and identifies risk factors, guiding the development of evidence-based interventions. Moreover, research findings inform healthcare policies, contribute to the identification of preventive measures, and enhance the overall resilience of emergency nurses.

5. Strengths and limitations

The strength of this concept analysis is utilizing the eight-step method of concept analysis by Walker and Avant to capture the attributes, antecedents, consequences, and empirical references of TI among emergency nurses that provide a comprehensive understanding of the concept and its implications for nursing. However, there are limitations, including subjectivity and contextual variability in understanding TI. Acknowledging these limitations is crucial for researchers and practitioners, underscoring the need for a nuanced and context-sensitive approach when applying findings to nursing practice.

**Table 1**  
Concept analysis: traumatic incidents among nurses in the emergency department.

Antecedents	Attributes	Consequences
– The nature of ED	– Exposure to sudden and unexpected events in the ED	– Physical
– Patients severity	– Subjective reactions and experiences	– Psychological
– Workplace violence		– Work-related
– A lack of training and resources		– Quality of patient care
– Personal factors		



## 6. Conclusion

The concept analysis utilized the eight-step method proposed by Walker and Avant to formulate a concise definition and attain a more profound understanding of TI among nurses in the ED. This analysis involved identifying characteristics, defining attributes, antecedents, consequences, model cases, and related cases to enhance our comprehension of the effective management of TI. Future research should focus on the developing instruments that precisely capture the fundamental attributes of the concept. While the concept of TI remains dynamic and subject to evolution, it serves as a robust foundation for future reviews and revisions informed by emerging research studies.

## Authors contributions

The author conceived and designed the study, performed the data analysis, interpreted the results, and drafted the manuscript. The author also approved the final version of the manuscript.

## Ethical approval

Not applicable.

## Declaration of generative AI in scientific writing

During the preparation of this work, the author used ChatGPT and Grammarly to correct the grammar. After using this tool, the author reviewed and edited the content as needed and took full responsibility for the content of the published article.

## CRediT authorship contribution statement

**Aekkachai Fatai:** Writing – review & editing, Writing – original draft, Validation, Supervision, Software, Project administration, Methodology, Conceptualization.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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