Trauma Nursing Education

Description

The impact and burden of traumatic injury is evidenced by the sheer numbers of people affected globally. More than one billion persons experience traumatic injuries each year (Bedard et al., 2020) resulting in nearly six million deaths annually (Centre for Global Trauma Quality Improvement [CGTQI], n.d.; Günther, et al., 2021; Rossiter, 2021; van Breugel, et al., 2020). Traumatic injuries occur as a result of unintentional events or intentional violence accounting for approximately 100 million individuals temporarily injured and about 40 million permanently injured globally each year (Rossiter, 2021; SAMHSA, 2022). Overall, trauma is the sixth leading cause of death worldwide (Günther, et al., 2021; Simon, Lopez, & King, 2023). However, this may be misleading for certain age groups. For example, in the United States (US), trauma is the leading cause of death for persons age 1–44 years (CDC, 2023) and in the United Kingdom (UK), trauma is the leading cause of death in those under 40 years old (Mercer, Kingston, & Jones, 2018). Of note, trauma is the leading cause of death in those 5 to 29 years old globally with 80%-90% of traumatic events unduly affecting people in Low- and Middle-Income Countries (LMICs) (Franklin & Sleet, 2018; Ratnayake, Li, & Kushner, 2022; Rossiter, 2021; Shanthakumar, et al., 2021; WHO, 2021). Trauma morbidity and mortality in LMICs are affected by a lack of the nurse training, organized emergency care and trauma systems present in high-income countries (HICs) as well as insufficient healthcare, financial resources, and/or education (CGTQI, n.d.; Franklin & Sleet, 2018; Rossiter, 2021, Shanthakumar, et al., 2021; WHO, 2024).

Worldwide traumatic injuries levy a significant economic burden on society incorporating not only healthcare costs but lost productive years of life and lost wages. Unfortunately, the liability varies dramatically between HICs and LMICs. Overall, the global gross domestic product (GDP) cost of trauma is estimated to be 3% per year while the GDP cost of trauma in LMICs is estimated to be as much as 30% per year (Rossiter, 2021). The Centers for Disease Control and Prevention estimate that the economic burden of injury in the US in 2019 was 4.2 trillion dollars, with more than half attributed to working adults aged 25–64 years (Peterson, Miller, Barnett, & Florence, 2021). In Canada the economic burden was estimated to be 29.4 billion in 2018 (Government of Canada, 2021) while Italy estimates cost of trauma is about 7% of the overall public healthcare costs (Martino, et al., 2020). Besides the financial burdens associated with trauma, there is also the burden placed on the functional independence of the survivor. While Improvements in trauma care and education have positively impacted outcomes some survivors have outcomes that can interfere with their health-related quality of life (HRQoL) (Kersten, et al., 2018; Lotfalla, Halm, Schepers, & Giannakópoulos, 2024; Martino, et al., 2020; Peterson, Miller, Barnett & Florence, 2021). Attributes of HRQoL including physical, psychosocial, and/or social interactions not only affect survivors in all age demographics but also the families (Jones, Tyson, Yorke, & Davis, 2021; Kersten, et al., 2018; Lotfalla, Halm, Schepers, & Giannakópoulos, 2024; Martino, et al., 2020; Peterson, Miller, Barnett & Florence, 2021). The trauma burden is far too great to ignore requiring emergency nurses to not only be educated themselves but to also encourage them to provide community education. Community education injury prevention programs can be designed to-focus on the predictable and preventable nature of injury with evidence-based interventions to reduce mortality and disability (Franklin & Sleet, 2018; WHO, 2021).

Trauma nursing requires specialized, education and training which might further improve patient
outcomes (Gautreaux, Reeves, & Abela, 2019; Lee & Battle, 2018; Rossiter, 2022). One way of attaining core trauma nursing education is taking a systematic, standardized course. There are a variety of courses offered around the world including but not limited to the Trauma Nursing Core Course (TNCC) offered through the Emergency Nurses Association (ENA) which teaches a systematic approach to the assessment and treatment of patients with traumatic injuries. The availability of trauma nursing education is dependent on the nurse’s country of origin, facility requirements and financial considerations. Other trauma education specific courses available include courses in the US Advanced Trauma Care for Nurses (ATCN) offered through STN taught concurrently with the American College of Surgeons (ACS) Advanced Trauma Life Support (ATLS) (STN, 2024), Trauma Care After Resuscitation (TCAR, 2024), Emergency Trauma Management Course (ETM, 2024) offered primarily in Australia & New Zealand, and the European Trauma Course (ETC) offered in some 20 countries (ETC, 2022). Courses taught mainly in LMICs include the Primary Trauma Care Course (PTC, 2022) and the World Health Organization (WHO)/International Committee of the Red Cross (ICRC) Basic Emergency Care Course (BEC) (WHO, 2018).

It is important that education for trauma nurses incorporates a trauma-informed care (TIC) approach. This approach uses four “R” principles introduced by Substance Abuse and Mental Health Services Administration (SAMHSA, 2021) that focus on: realization, recognizing, responding, and resisting re-traumatization. The trauma nurse realizes the effects of trauma, recognizes the signs of trauma, responds using TIC principles to ensure patient centered care providing safety and emotional support thus preventing re-traumatization (Navarroli, 2023). Trauma Certified Registered Nurses (TCRNs) demonstrate exceptional knowledge, expertise in technical performance, and professionalism in delivering care across the continuum of care (Board of Certification for Emergency Nursing [BCEN, n.d.], 2024). The BCEN recommends at least two years of trauma nursing experience before taking the TCRN examination.

**ENA Position**

It is the position of the Emergency Nurses Association (ENA) that:

1. A standardized and systematic approach improves trauma care and reduces mortality and disability.
2. Trauma-related continuing education and certification are recommended for emergency nurses who provide care to patients with traumatic injuries.
3. The trauma nursing process, taught in the TNCC course, is recommended as a systematic and standardized approach for the assessment, intervention, and evaluation of the patient with traumatic injuries.
4. Emergency nurses with two years of trauma nursing experience are encouraged to take a trauma-related certification exam such as the Trauma Certified Registered Nurse (TCRN) examination.
5. Emergency nurses support their communities through the development, implementation and teaching of injury prevention and first aid techniques such as hemorrhage control as an essential component of the continuum of trauma care.
6. Emergency nurses conduct and participate in research that links clinical trauma outcomes to basic and
Background

Traumatic injuries are associated with an event or series of events or circumstances that cause physical harm and requires an educated and coordinated multidisciplinary care team (Mercer, Kingston, & Jones, 2018; SAMHSA, 2022). Traumatic events includes any unintentional injury like road related crashes or natural disasters or, intentional violence such as abuse (i.e., sexual, physical, financial, psychological) or intimate partner violence that may be emotionally harmful possibly having lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being (Mercer, Kingston & Jones, 2018; SAMHSA, 2022). Numerous studies report that 80%-90% of traumatic events unduly affect people in LMICs (Franklin & Sleet, 2018; Ratnayake, Li, & Kushner, 2022; Rossiter, 2021; WHO, 2021). Rossiter (2021) further details that road related trauma is prevalent with just one percent of the world’s vehicles causing 13% of traumatic deaths noting that those deaths are three times higher in LMICs than in HICs. This disparity can be partly attributed to the relatively poor quality of emergency and trauma care in LMICs, a problem exacerbated by poor development, organization, and planning, as well as a scarcity of emergency care and trauma programs (CGTQI, n.d.; Franklin & Sleet, 2018; Rossiter, 2021). It is not unusual for nurses to be the primary providers of healthcare in LMICs (WHO, 2020 & 2024). Globally, trauma systems along with trauma nursing education are being improved, expanded, or newly created as evidenced by the number of organizations such as ENA, CGTQI, Society of Trauma Nurses (STN), National Major Trauma Nursing Group (NMTNG) and WHO to name a few that are dedicated to improving trauma treatment and outcomes.

Nurses trained in trauma care have the knowledge to assess and intervene when treating patient involved in traumatic events. However, due to the lack of universal education requirements there are limitations that may impede the ability for some in obtain education. Limitations and barriers to obtaining education are a global issue that might include infrastructure, cost, location, time-off, staffing, and/or pre-requisites (Barleycorn & Lee, 2018; East of England Trauma Network, 2021; Gautreaux, Reeves, & Abela, 2019; Lee & Battle, 2018; WHO, 2020). In the US the American College of Surgeons (ACS, 2023 pg 158) Resources for Optimal Care of the Injured Patient 2022 Standards only specifies “that trauma centers must” provide trauma education to nurses caring for patients with traumatic injuries but only outlines suggested way to meet requirements. It should be noted that the East of England Trauma Network and the ETM course have very specific requirements to attend as a nurse (East of England Trauma Network, 2021; ETM, 2024). Depending on where emergency nurses practice in the world there are vast difference in the interpretation, implementation, and obtaining trauma nursing education. Since 1986, ENA’s Trauma Nursing Core Course (TNCC) has served as the standard for trauma nursing education for the care of patients who have sustained injuries (ENA, 2023). TNCC covers the trauma nursing process training nurses to complete a systematic assessment, rapidly identify and intervene to treat life-threatening injuries, while thinking critically in high-pressure situations. As previously mentioned, there are several options to gain trauma nursing education. Where there is a dearth of educational options, it may be prudent, in some cases, to establish a standardized education plan based on a facility and/or regional perspective (Barleycorn & Lee, 2018; Gautreaux, Reeves, & Abela, 2019; Lee & Battle, 2018).

Regardless of what is learned within these courses nurses always practice within their scope of professional practice and follow facility policies.
Part of trauma nursing education is injury prevention which translates to nurses teaching patients and communities’ injury prevention and first aid techniques such as hemorrhage control. Hemorrhage or uncontrolled bleeding is a primary cause of death from trauma which could be prevented by laypeople initiating basic bleeding control methods (Bradford, J, 2023; Day, 2021). Stop The Bleed® is an internationally recognized program taught in over 150 countries (Peregrin, 2024). Stop The Bleed® was initially established through a collaboration between the American College of Surgeons Committee on Trauma (ACS-COT) and various stakeholders including ENA and the US government as a response to mass shootings ((ACS, 2019-2024.). Stop The Bleed® provides free bleeding control courses that teach basic awareness, recognition, and response to bleeding to bystanders (ACS, 2019-2024). Stop The Bleed® also advocates for bleeding control kits to be included in trauma kits at defibrillator locations, local organizations, airports, and hospitals.

For years, injuries were viewed as accidents that were inevitable. Injuries constitute a major public health problem. A large body of epidemiological and clinical research demonstrates that injuries do not occur by chance. Like diseases, injuries follow predictable patterns, thus making them preventable. (Bradford, 2023). Thus, core trauma education, trauma-related continuing education and certification are recommended as an important adjunct for emergency nurses providing care to patients experiencing traumatic events. It is also important that research is initiated to better link clinical patient outcomes to core and advanced trauma nursing education.

**Resources**


Centre for Global Trauma Quality Improvement (CGTQI). (n.d.) Welcome to the CGTQI Resource Library. Retrieved April 13, 2024 from https://globaltraumaquality.org/resources/browse-resources


References


Shanthakumar, D., Payne, A., Leitch, T., & Alfa-Wali, M. (2021). Trauma care in low- and middle-

Society of Trauma Nurses (STN). (2024). Advanced Trauma Care for Nurses (ATCN). Retrieved from STN: https://www.traumanurses.org/education/atcn-program


Authored by

Joanne E. Navarroli MSN, RN, CEN

Reviewed by

2024 ENA Position Statement Committee
How to Reference This Document


This position statement, including the information and recommendations set forth herein, reflects ENA’s current position with respect to the subject matter discussed herein based on current knowledge at the time of publication. This position statement is only current as of its publication date and is subject to change without notice as new information and advances emerge. The positions, information, and recommendations discussed herein are not codified into law or regulations. In addition, variations in practice that take into account the needs of the individual patient and the resources and limitations unique to the institution may warrant approaches, treatments, and/or procedures that differ from the recommendations outlined in this position statement. Therefore, this position statement should not be construed as dictating an exclusive course of management, treatment, or care, nor does adherence to this position statement guarantee a particular outcome. ENA’s position statements are never intended to replace a practitioner’s best nursing judgment based on the clinical circumstances of a particular patient or patient population. Position statements are published by ENA for educational and informational purposes only, and ENA does not “approve” or “endorse” any specific sources of information referenced herein. ENA assumes no liability for any injury and/or damage to persons or property arising out of or related to the use of or reliance on any position statement.