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# Emergency Department Trauma Informed Care for a Black Male Gunshot Victim

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## Abstract

Emergency Department (ED) based Trauma-Informed Care (TIC) was applied on a black male gunshot victim. The operational structure of University Medical Center New Orleans (UMCNO) ED has established an optimal interdisciplinary TIC foundation that addresses the health crisis of gun violence by accounting for its epidemiology. This foundation reinforces bedside emergency physician TIC with an ED-based Hospital Violence Intervention Program (HVIP) for TIC continuity. The approach mitigated the re-traumatization of my patient, as demonstrated by in-hospital TIC intervention assessment and post-discharge follow-up. UMCNO ED effectively exercised the six core principles of TIC to facilitate this outcome for my patient. TIC of UMCNO ED, and its HVIP, emerged from the literature that suggests the ED as a promising setting to mitigate re-traumatization in the violently injured through TIC. The teachable moment and psychological first aid are emergency care concepts that can provide the basis for widespread ED TIC utility in adaptable forms such as HVIPs, to meet unique population health needs.

## Introduction

Gun violence is a public health crisis. In the United States, 15-year–34-year-old black males are of greatest risk [1]. Poor social determinants of health result in cumulative trauma, which is linked to violent exposure [2]. Trauma exposure is related to cognitive impairment and behavioral decline due to maladaptive neuro-hormonal changes [3]. Dr. Rahn Bailey, Department Chair of Psychiatry at Louisiana Health Sciences Center in New Orleans, invokes social responsibility upon the medical community to manage, audit outcomes, and prevent damage associated with the health crisis of gun violence [4]. The concept of Trauma-Informed Care (TIC) emerged in 1994 by the Substance Abuse and Mental Health Administration (SAMHSA). Victims of violence are more likely to engage with future violent activity [5]. TIC interventions are able to instill patients with resilience to trauma and its associated outcomes [1]. United States Department of Health and Human Services (HHS) outlines six principles to guide the practice of TIC. The six principles that define TIC are safety, trustworthiness/ transparency, peer support, collaboration/ mutuality, empowerment of voice/choice, and cultural/historical/ gender issues. The principles guide the Department's response to public health emergencies [6].

TIC is a promising intervention that seeks to reduce re-traumatization of the violently injured. Hospital-Based Violence Intervention Programs (HVIP) function through a TIC approach and have successfully reduced the negative sequela of patients

with gunshot injury such as PTSD and recidivism while being cost effective [7]. The American College of Surgeons recognizes the emergency department as a core clinical setting to drive HVIPs [8]. More firearm injured patients are discharged from the emergency department than admitted into the inpatient setting [9].

Emergency Departments (EDs) have been considered "safety nets" for vulnerable populations and often manage sequela of poor preventative health. EDs offer unique ability to empower patient wellness through the teachable moment [10]. This moment describes when the patient best embraces education. Application of the teaching moment in emergency department practice has shown promise in reducing addiction, substance abuse, and violence [11–13]. Hospital-based social services contribute a significant role to emergency department TIC. However, emergency physicians are often the patient's first in-hospital contact with medical care. This is especially the case in the trauma bay. As such, emergency physicians contribute to TIC through the use of psychological first aid. Supported by the National Center for PTSD, psychological first aid is used by emergency health care providers to reduce patient distress from traumatic events to promote long-term adaptive functioning [14]. Reassuring patient safety and connecting patients to helpful social services are two core goals of psychological first aid. Garnering a patient's sense of safety is the first TIC principle to capture to invoke the others. Fisher et al. advocate emergency providers' use of psychological first aid and suggest it a promising strategy to facilitate matriculation and retention of the violently injured into HVIPs [15].

This case report demonstrates effective ED (University Medical Center New Orleans Spirit of Charity Emergency Department) care practice that standardizes the application of the psychological first aid in managing a gunshot injury patient to facilitate ED-based TIC management. Emergency providers team with TIC trained community members of the HVIP to provide longitudinal TIC for admitted patients. As part of the HVIP, the six principles of TIC were applied to my patient. The patient responded well with four days of assessment.

## Case Presentation

25-year-old black male with a medical history of Gunshot Wound (GSW) and illicit substance use presenting with GSW to abdomen complicated by hepatic laceration s/p exploratory laparotomy. The patient sustained two penetrating gunshot injuries to the abdomen while outside his home. The patient presented to the trauma bay in hemorrhagic shock. The patient was alerted and oriented, although ill-appealing. Mass transfusion protocol was applied. Before and during the primary assessment, the patient was reassured of his safety by the emergency physician. The emergency physician head of bed positioning allowed face-to-face contact with a patient to communicate routine safety and emotional support reminders. The patient was emergently taken to the operating room for exploratory laparotomy, where the injuries were discovered. Hepatic drains were placed, and the patient was post-operatively managed in the Trauma Intensive Care Unit (TICU) for four days prior to home discharge. Patient TIC via the HVIP, established in the ED, continued while in TICU. I was part of the HVIP as a physician. The patient received post-discharge follow-up by the HVIP.

The patient stated GSW to the right lower extremity at age 18. The injury was non-operative, and the patient was discharged from the emergency room with outpatient follow-up. The patient did not receive HVIP at the time. However, the patient endorsed active THC use.

## Assessment Application of Six Core TIC Principles

UMCNO ED applied the six core principles of TIC to facilitate four days of HVIP TIC assessment for my patient. Assessment outcome was measured by patient report, team observation, and daily assessment notes. The six core principles of TIC, its goals, and UMCNO ED and HVIP team application of each to provide TIC for my patient are reflected below.

1. **Safety: Physical setting of TIC ensures security, promoting safe interpersonal exchange between providers of care and those receiving care.**
   - Emergency Medicine doctor communicated reassurance of safety and emotional support on presentation in the trauma bay for the patient.
   - Team was credentialed through ED for hospital access to patients and provided identification badges. This communicated safe intervention for the patient.
   - Patient made aware that team had no affiliation to law enforcement and reassured the patient of safe confidentiality of discussed content. This facilitated patient engagement and encouraged safe dialogue.
2. **Trustworthiness and transparency: TIC operations proceed with transparency to facilitate interactive trust.**
   - Team communicated testimonies of trauma, including being victims of a gunshot injury, past perpetrators of violent activity, and their experience with trauma management. This comforted the patient with relatable advocates and presented models of recovery for the patient.
   - Interventional approach did not blame the victim for the traumatic outcome. Instead, an approach focused on the comprehensive life experience of the patient contributing to his current experience with trauma. This approach attempted to provoke patient reflection of past traumas contributing to current trauma and to inspire the capacity of the patient to envision and lead his own recovery.
   - Team provided patient 24-hour contact information. This approach was used to reinforce team presence for the patient's needs. Further, the approach reinforced patient autonomy to control the pace and timing of discussed

content. This provided comfort to the patient, emphasized support and empowered the patient to a leadership role.

3. **Peer Support: Peers have been referred to as "trauma survivors" who experienced similar patient trauma with the potential to facilitate collaboration and promote patient hope for traumatic recovery and healing.**
   - Team consists of individuals who have histories of violence exposure and traumas similar to my patient. This approach aimed to instill patient perceiving team as allies and to be nonjudgmental.
   - Team members encouraged patient utility of services and methods used by team members to manage trauma. The goal of this was to provide patient models of survival techniques.
4. **Collaboration and Mutuality: Intentionality on the balanced power structure in providing TIC service promotes shared decision-making in a manner empowering the patient.**
   - The intervention approach by the team elevated the patient into a victor from trauma. The goal of the approach was to propel the patient into a willing participant in his wellness and to discourage patient thoughts of being seen as 'the problem.'
   - Team tasked patient with providing a daily motivational quote to begin an assessment. This approach aimed to establish mutual impact, importance, and accountability between patient and team for ongoing personal growth.
   - Team performed TIC in a seated position. The goal was to reinforce the patient's perception that a discussion was taking place instead of a lecture. The team felt the patient dialogue was more effective in this manner.
5. **Empowerment, Voice, and Choice: Organizational operation structure recognizes the experience of trauma as an important cause of its members and clients, which facilitates the inclusion of interdisciplinary strategies in organizational service delivery to communities it serves.**
   - UMCNO ED practice recognizes its patient population affected by gun violence and the cultural aspects which impact its incidence. The ED recognizes the need to adapt its practice to include culturally appropriate HVIP to best address the problem. In addition, the ED recognizes gun violence as an important scholarly subject of its physician workforce and a subject warranting incorporation into its residency curriculum. This organizational structure allowed me to engage with my patient in TIC as part of the HVIP.
6. **Cultural, Historical, and Gender Issues: Organizational incorporation of processes that move past cultural stereotypes and biases and are responsive to cultural and gender needs of individuals with recognition of historical trauma on such individuals.**
   - UMCNO ED partnership with community members to facilitate TIC acknowledges cultural competency's importance in delivering the best care. This importance recognized utility of providing model community members with credentialed hospital access to perform culturally appropriate and impacting TIC.

## Results

On initial assessment, the patient displayed disruptive psychological features of acute stress known to victims of violence [16]. Despite multiple attempts from the treatment team to elicit expressive dialogue, the patient demonstrated persistent disengagement through apathetic body languages such as avoidance of eye contact and neutral countenance. This observation is consistent with literature outlining peri-traumatic dissociation of assault victims in the acute stress period [17]. Further initial observation noted the patient to display negative mood features such as inability to experience happiness. Emotional dysregulation such as sadness is known to be a common mood reaction to acute stress.

Follow-up daily assessments were notable for progressive patient improvement from dissociative features. Patient eye movements during intervention became tracked with treatment team positioning by day 2 of intervention. Interventions evolved into an interactive experience in which the patient expressed verbal and body language emotions when discussing his personal experience with trauma. This indicated patient reintegration of his current trauma into his cognitive experience and the re-association of stimulus detection to stimulus-related affective responses [18]. Such reintegration was assessed as an improvement and indicated the process of reconciliation with the active trauma. The TIC core principle of trustworthiness and transparency facilitated this progression, and by TIC day three, patient happiness was more sustained and the defining mood of the encounter. Patient happiness was more resilient to difficult topics discussed related to the traumatic event, which was previously triggering to the patient and provoked sadness.

Moreover, the patient discussed his plans to protect his well-being by moving out of state to live with family and was optimistic about employment opportunities and the support he would receive from a family with this move. Trauma-informed care seeks to achieve optimal regulation of emotion and avoidance of coping behavior, which compromises wellness [17]. All TIC principles were applied and contributed to the patient's positive mood outcome and emotional regulation, which enabled patient empowerment to direct his own path to recovery from trauma. The patient was contacted via phone on day two post-discharge. The patient reported a happy mood and excitement of a pending move out of state to live with family support. The patient denied intrusive flashbacks of the traumatic event and sleep difficulties. The patient thanked the HVIP for his safe perspective concerning the traumatic event and attributed the team's service to his nonviolent coping strategies.

## Discussion

The TIC structure of my ED effectively mitigated the impact of re-traumatization for my gunshot injured patient. This culture facilitated the TIC approach, which reduced the patient's morbidity associated with the traumatic event. In addition, TIC treated the patient's peritraumatic dissociation and emotional dysregulation. Untreated trauma is said to cause ongoing fear and feelings of lack of personal control. In young adults, violent injury increases the risk of recidivism and mortality risk [19]. My report supports growing literature that points to the unique position of emergency care, through applied psychological first aid, in uniting the teachable moment to TIC for ongoing patient wellness from trauma. Violence is a major health issue in America, and emergency departments have been proactive in addressing this issue by bringing HVIPs TIC to violently injured patients [20]. Longitudinal performance of HVIP has successfully reduced gunshot injury recidivism and has shown a particular reduction in the African-American population [21]. This is significant as African Americans are known to carry the greatest risk of gun violence [1].

Emergency physicians play a significant role in ED TIC. Not only do providers establish safety for patients, which initiates the application of interdisciplinary TIC, but TIC relies on organizational support through the integration of policies and programs which advocate such care [22]. My ED partners with community members to form an HVIP and incorporate this perspective into its residency training, including a rotation with this HVIP. Dr. Annelis De Wulf, Associate Program Director of LSU Spirit of Charity Emergency Medicine, guides this rotation. The operational structure of my ED emphasizes reassurance of patient safety when treating trauma patients.

Moreover, this departmental approach allows physicians interested in HVIP TIC to engage patients with comprehensive care and grow as leaders in such. TIC's core principle of empowerment, voice, and choice is engaged in this manner. Systems that acknowledge cultural components of patient trauma and traumatic response is an important core principle of TIC. Research suggests ethnic and cultural factors play a pivotal role in a patient's risk, experience, and reaction to traumatic experiences [2]. Guided in part by local city crime data, which indicates the disproportionate impact of gun violence amongst black males [23], my ED recognized the need to adapt and provide model community members credentialed access to these patients with culturally competent allies in the hospital setting to enhance patient gain from the potential teachable moment of traumatic gun violence injury. This provided peer support which facilitated patient trust from my team. In addition, my team interacted with the patient to emphasize his strengths/talents. This approach was inspired by literature demonstrating promise in using signature strengths for healthy stress response [24,25].

Literature has suggested that chronic stress exposure disproportionately affects African Americans, with negative health outcomes manifesting in later years [26].

The demographics of stress are especially critical when considering its implications on the COVID-19 pandemic. However, gunshot trauma was shown to reduce during the pandemic, the incidence of domestic violence increased [27]. Research regarding this trend suggests that long-standing personal trauma and violent exposure exacerbated mood changes associated with the social strain imposed by the pandemic [28,29].

An investigation by Liebshutz et al. reports that medical treatment was ineffective in addressing circumstances and reactions to injury for black male violence victims [30]. In this study, victims reported healthcare mistrust which included perceptions of healthcare and law enforcement alignment, safety concerns, and post-injury poor mental health. In contrast, victims reported that treatment from those with shared experiences, those who invoked the patient's future, and those with open personalities improve their morale during medical treatment. These findings suggest promise in the widespread use of ED TIC with models such as HVIP to provide gunshot injured patients with reassuring relationships equipped to foster their well-being while being treated.

ED-based TIC is not without challenge. It adds to patient demand despite the limited resource capacity of EDs to meet such due to various factors, including crowding. Crowding results from patient demand and ED resource capacity mismatch. Half of American EDs reported operating near or above maximal capacity [31]. Further, compassion fatigue of ED doctors due to prolonged exposure to difficult patient encounters and secondary trauma from traumatic injury provide self-preserving caution to providers [32,33]. Preservation of mental health is necessary for ED provider function, so universal ED application of TIC may complicate emergency providers. Further literature is needed better to understand ED-based TIC from the ED doctor's perspective. Much of the existing literature regarding ED-based TIC reflects an overall operating ED structure, including ED-based community groups and social work.

Nevertheless, in primary duty to serve, emergency providers should treat with the core goal of building patient safety through words and bedside care tactics, which is not a time burdensome endeavor. The psychological first aid strategy of invoking a patient sense of safety directly, yet indirectly, connects the patient with TIC, with offloading of continual TIC by partnering ED community members and social work staff. This time-efficient approach may also offset the burden of secondary provider trauma associated with prolonged traumatic case exposures. ED-based TIC HVIP is a promising intervention regarded by emergency physicians and firearm injured patients [20]. Patients with ED trauma bay experience state that caring behaviors from providers such as supportive touch and tone of voice enhanced their sense of safety, which is more important to them than pain or lack of family present during the resuscitation [34]. ED HVIP TIC is an efficient approach with a significant yield to impact the epidemiology of gun violence.

Its effective care stems from the teachable moment within the traumatic event and prevails through mitigated re-traumatization beyond the hospital encounter, as it did for my patient.

## Conflict of Interest

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article. Informed consent was obtained for this publication.

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