Best Of Best Research and Innovation Abstracts

1 Core Competencies in Trauma Informed Care for Emergency Medicine: A Modified Delphi Consensus

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Background: Trauma informed care (TIC) is a framework to recognize trauma, prevent re-traumatization, and promote resilience. Trauma is a common reason for emergency department (ED) visits and has long-term impacts on health, yet many physicians lack appropriate training in TIC.

Objective: To use a modified Delphi process to build consensus of core competencies in universal precautions of TIC for emergency medicine (EM) post-graduate education.

Methods: We recruited geographically diverse, national experts in TIC via snowball sampling in 2023. Panelists ranked the importance of competencies on a 5-point Likert scale through an electronic survey. Threshold for consensus was defined as a mean score of 3.75. Thematic analysis was performed on free text using inductive and in vivo codes.

Results: Sixteen panelists across 12 institutions participated in the modified Delphi and 49 initial competencies were proposed. During the first round, all (100%) of the competencies met or exceeded the consensus level, but many panelists offered comments on consolidation and suggested edits. Thus, we conducted two virtual panel discussions and re-organized the proposed competencies into 19 competencies in Round 2 and further narrowed to 16 competencies in Round 3. There were no major changes proposed by panelists after Round 3 and all competencies exceeded the consensus level.

Conclusions: We achieved consensus on 16 core competencies for universal precautions of TIC (Table), which can be used to develop simulation and education interventions for EM resident physicians with the goal of advancing awareness and application of TIC principles.

Table 1. Final core competencies and associated sub-competencies in trauma informed care for emergency medicine clinicians developed through a modified Delphi process.

Core Competency	Sub-Competencies
Medical Knowledge	
Define trauma	1. Define trauma using a model including individual, interpersonal, collective, and structural levels. 2. Describe the stress trauma continuum. 3. Describe at least one specific example of trauma's long-term effect on neuropsychiatric/physical health and wellbeing.
Describe the widespread impact of trauma on health	1. Describe the short- and long-term sequelae of acute on chronic trauma and how health systems can retraumatize and activate individuals. 2. Describe the disparate burden of trauma felt by historically marginalized communities and groups that disproportionately experience stigma and bias.[1] Describe the role that structural and institutional systems play in contributing to this disparity. 3. Describe the range of symptoms of an acute trauma activation and effect on health care engagement.
Define trauma informed care	1. Define trauma informed care, specifically the 6 guiding principles of trauma informed care as defined by SAMHSA.[2] 2. Describe at least one way that trauma informed care principles impact the care clinicians deliver. 3. Describe universal precautions of trauma informed care.
Patient Care – History Taking	
Creates a safe physical and psychological space for bi-directional communication	1. Sits down or otherwise maintains eye level to avoid standing over the patient. 2. Considers patient preference regarding visitor presence during history taking.[1] 3. Uses open ended questions. 4. Appropriately limits scope of history taking to patient's comfort and clinician role.[2] 5. Encourages patients to share as much or as little as they are comfortable. 6. Is transparent about situations that would require breaking confidentiality.[3] 7. If taking history for known traumatic event (e.g., assault) minimizes number of times history is taken[4] and aims to limit the number of people in the room to those with essential roles. 8. Avoids history taking in public spaces.[5] 9. Utilizes universal precautions to maintain safety[6] in all patient encounters. 10. Understands the principles and skills associated with de-escalating a patient and strategies to promote safety during an encounter with a dysregulated patient.
Demonstrates effective communication skills,	1. Describes their name, role, time that they will spend with the patient and why.

Table 1. Continued.

reflective listening, and cultural awareness	2. Asks the patient how they would like to be addressed or reconfirms name and pronouns from the chart. 3. If visitors (e.g., friends, family members) are present, asks the visitor names and their relation to the patient. 4. Asks patient preferred language and communication means. Uses a certified medical interpreter when not certified in the patient's primary language. 5. Demonstrates active listening through verbal and non-verbal cues. 6. Asks about lived experiences, customs, and preferences.[7] 7. Provides an opportunity to correct or add additional information. 8. Uses shared decision making to discuss next steps collaboratively.
Patient Care – Physical Examination	
Outlines exam steps for all patients	1. Asks permission before initiating physical exam. 2. Explains rationale for exam.[1] 3. Explains the role and uses a medical chaperone during sensitive exams and provides opportunities for patient input where appropriate. 4. Ask the patient privately whether they would like to have their support person (e.g., friend, family member) present for the exam. 5. Informs the patient that we will stop or pause at any point per their request during the physical exam or procedures. 6. Asks the patient if they would like to be informed of next steps. If they answer affirmatively, explains any transitions during the physical exam. 7. Asks the patient if they would like to be informed of what the examiner is observing during the exam. If they answer affirmatively, the resident narrates what they are examining and why. 8. Shares relevant findings of physical exam at completion of exam based on patient preference.
Maintains patient dignity and privacy	1. Exposes and re-drapes sensitive areas as they are being examined.[2] 2. Allows the individual to put their clothes back on at the earliest possibility. 3. Checks in regarding patient comfort and monitors for signs of trauma activation or re-traumatization.
Professionalism and Interpersonal Skills/Communication	
Professionally and empathetically responds to disclosures of trauma	1. Approaches trauma-related topics with empathy, respect, and dignity.[1] 2. Displays empathy, gratitude, and professionalism when a patient makes a disclosure of trauma. 3. If a patient discloses past trauma to the clinician, balances inquiring about medically necessary information while avoiding redundant sensitive questions to reduce re-traumatization.
Demonstrates the ability to collaborate with patient's families and social networks	1. When applicable, demonstrates the ability to collaborate with patient's social support networks and/or other supporting resources such as social work, community organizations, etc.
Uses neutral, objective, professional language	1. Expertly uses neutral language.[2] 2. Avoid pejorative or stigmatizing language in documentation.[3]
Systems Based Practice	
When possible, considers patient preferences when arranging for further care	1. Considers that certain locations may be activating or re-traumatizing for the patient and asks about preferences for outpatient referrals, pharmacies, etc. 2. Considers patient specific cultural and religious practices.[1]
Engages appropriate referrals and resources	1. Demonstrates the ability to collaborate with the full spectrum of healthcare team members.[2] 2. Appropriately identifies referrals and resources within hospital system for next steps.[3] Demonstrates understanding and acceptance if the patient refuses resources. 3. Identifies social determinants of health that may be affecting a patient. 4. Engages harm reduction practices and referrals when applicable.
Practice Based Learning and Improvement	
Demonstrates knowledge of effect of trauma on oneself	1. Describes the effects of trauma on clinicians. 2. Utilizes a structured debrief to process effects of secondary trauma on oneself and other team members. 3. Explores ways their residency or respective institution mitigates or contributes to trauma.
Demonstrates a knowledge of resources[1] and institutional supports for residents	1. Demonstrates a knowledge of resources[1] and institutional supports for residents
Demonstrates trauma informed care behaviors to peers	1. Mentors others on the use of training trauma informed care in clinical practice. 2. Acts as a role model for the use of trauma informed care in clinical practice.
Adjusts behaviors based on evolving best practice guidelines in the domain of trauma informed care	1. Engages in trauma informed care training. 2. Critically engages with literature on trauma informed care and clinical practice guidelines.

Additional details and examples:

Medical Knowledge:

[1] For example people of size, people who have an accent, wear certain clothing, or are unhoused.

[2] SAMHSA, Substance Abuse and Mental Health Services Administration

Patient Care – History Taking:

[1] Asks the patient about who (if anyone) is in the room with them. Privately ask whether they would like their visitor to be in the room for the history. For sensitive questions (e.g., about intimate partner violence, safety at home, sexual activity), request that the visitor leave the room. If appropriate and feasible, request law officers leave the room during history taking.

[2] For example, does not probe for additional details unless clinically necessary.

[3] For example, mandatory reporting or threat of imminent harm.

[4] For example, resident asks attending to take history together

[5] For example, in the hallway

[6] For example, maintains open access to the door

[7] For example, "Many patients have shared something about themselves or their preferences for care – is there anything that you would like me to know or consider in providing your care?"

Patient Care – Physical Exam:

[1] For example, "I would like to examine your chest wall because a rash may be causing your symptoms".

[2] Appropriately drapes and covers sensitive areas during the exam, exposing only the area to be examined.

Professionalism and Interpersonal Skills/Communication:

[1] In contrast to pity, condescension, and making judgments

[2] For example, avoids phrases such as "Lift up your arm for me," instead, states, "Could you please lift up your left arm?"

[3] For example, avoids terms such as "drug seeking" and uses person first language (a cisgendered woman that is unhoused instead of a homeless woman).

Systems Based Practice:

[1] For example, provider gender preference, food preferences, high holidays, etc.

[2] For example, social workers, violence intervention workers, community advocates, etc.

[3] For example, consultation of forensic nurse.

Practice Based Learning and Improvement:

[1] Resources may include therapy, debriefing, peer support, avoidance of trauma activators.

2 The Changing Landscape of Emergency Medicine Residency and the Workforce Report: From Programs to Applicants

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Background: Emergency medicine (EM) has experienced

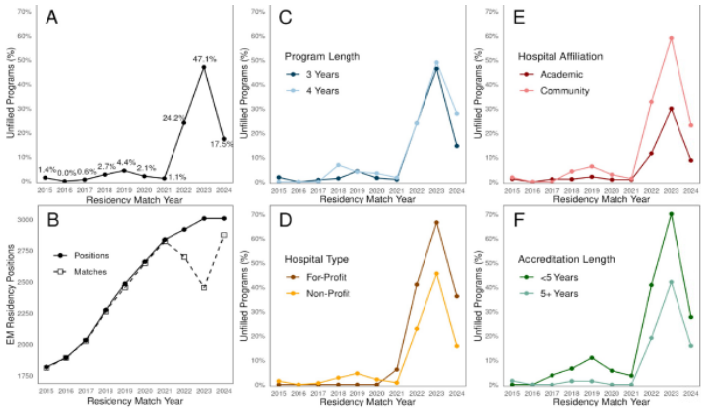
tremendous shifts in the residency landscape, including changes in available positions, match rates, and applicant characteristics. The 2021 EM Workforce Report, predicting a surplus of EM physicians by 2030, likely influenced these changes.

Objective: This study aimed to compare before and after the 2021 EM Workforce Report: the proportion of unfilled EM residency programs; characteristics of unfilled programs; and matched applicant characteristics. We hypothesized there would be significant differences in all three aims comparing the two time points.

Objective: We conducted a repeated cross-sectional study using publicly available data for the 2015-2024 match cycles. Outcomes were analyzed prior to the Supplemental Offer and Acceptance Program and compared pre- and post-report (2015-2021 vs 2022-2024). Rate ratios (RR) were calculated with 95% confidence intervals.

Results: Of 283 programs, the proportion of EM programs that went unfilled for at least one year increased significantly from 1.9% pre-report to 29.5% post-report (RR 15.7, 95%CI: 10.4-23.7) (Figure 1). Programs with less than five years of accreditation saw a more significant rise in unfilled positions (5.8% to 47.2%) compared to programs with longer accreditation (0.6% to 25.7%) (p=0.007). Post-report, the proportion of US-trained MDs among matched applicants decreased (72.9% vs 54.0%, RR 0.74, 95%CI: 0.71-0.77), while the proportions of Doctors of Osteopathy (21.1% vs 33.4%, RR 1.58, 95%CI: 1.50-1.66), US international medical graduates (IMGs) (4.6% vs 9.8%, RR 2.12, 95%CI: 1.92-2.34), and non-US IMGs (1.3% vs 2.8%, RR 2.23, 95%CI: 1.84-2.70) increased (Figure 2).

Table 1. Emergency Medicine residency program matches in the United States by match year, 2015-2024. (A) Percentage of unfilled EM programs per year; (B) Number of available EM residency positions and matches per year; (C) Percentage of unfilled EM programs by program length; (D) Percentage of unfilled programs by hospital type; (E) Percentage of unfilled programs by hospital affiliation; (F) Percentage of unfilled programs by unfilled programs by hospital accreditation length.



Conclusion: Since the 2021 EM Workforce Report, unfilled EM residency programs have risen, particularly among newer programs. There has been a shift in the composition of matched applicants, with fewer US-trained MDs entering EM. The magnitude to which these changes were directly attributable to the report is uncertain.

3 Standard Letter of Evaluation Rating Associations with Individual versus Group Authorship and Volume of Letters Written

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Background: Previous research suggests group SLOEs are trusted more than SLOEs authored by individuals. Whether individual SLOEs are associated with inflated ratings which may contribute to this perceived difference in trustworthiness is unknown. It is also unclear if inflated ratings are associated with volume of SLOEs written, thus impacting trustworthiness of SLOEs from individuals as individuals are less likely to author high volumes of SLOEs compared to groups.

Objectives: Quantify the association of average global assessment ratings with (1) individual vs group authorship and (2) volume of SLOEs written.

Methods: All SLOEs from 2016-2021 were included (n = 40,216). Number of SLOEs written and average global assessment ratings were calculated for unique author(s) each year, resulting in 4,586 observations. Group SLOEs were detected using a previously validated algorithm. SLOE volume was stratified into 3 groups targeting equal group size (Table 1A). Mean ratings were compared using t-tests and ANOVA.

Results: At all levels, mean ratings from individual SLOEs were higher than group-authored ratings; however, differences in ratings decreased as volume increased, and at the highest volume, the difference is of questionable practical significance (0.12, Table 1B). For both individual and group SLOEs, mean rating decreased as volume increased, though score differences across volume tiers were greater in individual SLOEs compared to group SLOEs (0.40 vs 0.19, Table 1B). The mean rating from high-volume individual SLOEs approximated ratings from moderate and high-volume group SLOEs (2.7 vs 2.7 and 2.6, respectively).

Conclusions: SLOEs from low-volume individual authors should be interpreted with the context that ratings from this group tend to be higher, which may represent grade inflation. Mean ratings from high-volume individual authors approximate those of moderate to high-volume group SLOEs and may be appropriate to consider similarly to ratings from these groups.