

Trauma Drama: Using Role Cards and Simulation to Build Self-Confidence and Enhance Critical Thinking in Trauma Surgery

BOSTON
TRAUMA

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TRAUMA HIGH-PERFORMANCE TEAM (HPT 3)

Team Facilitator:
Quality Improvement Nurse Leader

Team Facilitator:
Perioperative Nurse Leader

- Frontline Perioperative RNs & CSTs/STs
- Frontline Perioperative Assistants
- Central Processing Lead Technologist



Team Facilitator:
Anesthesia Provider

- Anesthesia Providers
- Anesthesia Technician

Team Facilitator:
Trauma & Acute Care Surgery Surgeon (TACS)

- TACS Surgeons

Pharmacist

BACKGROUND & PURPOSE

Following a merge of BMC's 2 campuses and a recent turnover of staff, roughly half of the workforce lacks trauma surgery experience, raising patient safety concerns

Interdisciplinary HPTs are tasked to build sustainable relationships and solve patient safety and workflow issues

The purpose of this improvement project:

Build nursing staff confidence and improve response during trauma (damage control) surgery by identifying and prioritizing tasks for the circulator and scrub in collaboration with other team members' roles and tasks

PREPARATION & PLANNING

Plus (+) / delta (Δ) exercise by the interdisciplinary team of OR nurses, technologists, anesthesia providers, surgeons, pharmacists, social workers, and ancillary staff to identify what processes work well and what could be improved during a trauma

Identify what works well (+) and how to incorporate it into what needs improvement (Δ)

Identify the challenges in caring for trauma patients ED direct to OR

Map process for receiving patient as direct admission from the ED for each OR role

Agree on standardized language for communication and primary tasks for each role

Engage members of each discipline to give input on and determine key tasks performed in the intraoperative phase of care

Frontline workers should be included throughout the entire process

Design role cards

Pocket size and wearable for easy reference

8x10 for the trauma cart resource binder

Hospital intranet link for online access

IMPLEMENTATION

Prior to RNs & CSTs receiving a role card

- Role card presentation to interdisciplinary trauma committee
- RNs/CSTs completed a survey to assess confidence/competence and received a presentation on role cards
- Role cards handed out at staff meeting

3 months after receiving role card:

- Post-implementation survey given to staff
- In-situ interdisciplinary trauma simulation held in the hybrid room
- RNs/CSTs given a survey to assess confidence/competence after sim
- HPT 3 reviewed the survey and debrief responses and assigned improvement tasks to team members

6 months post implementation

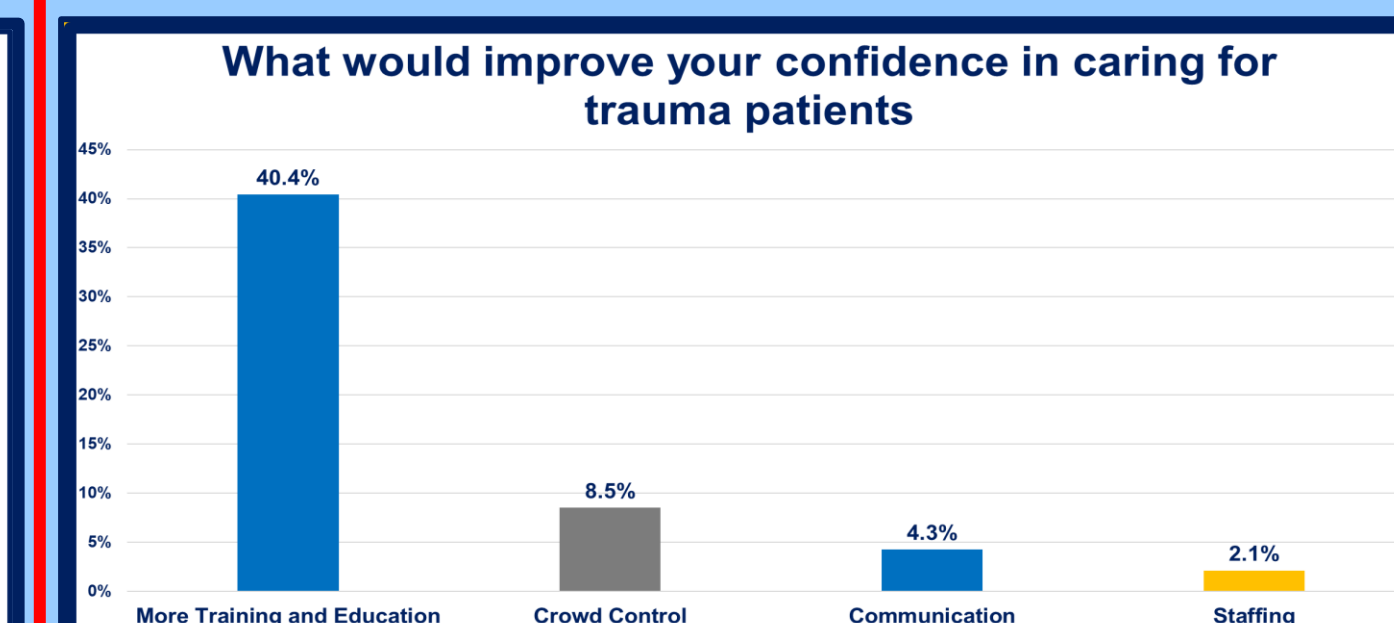
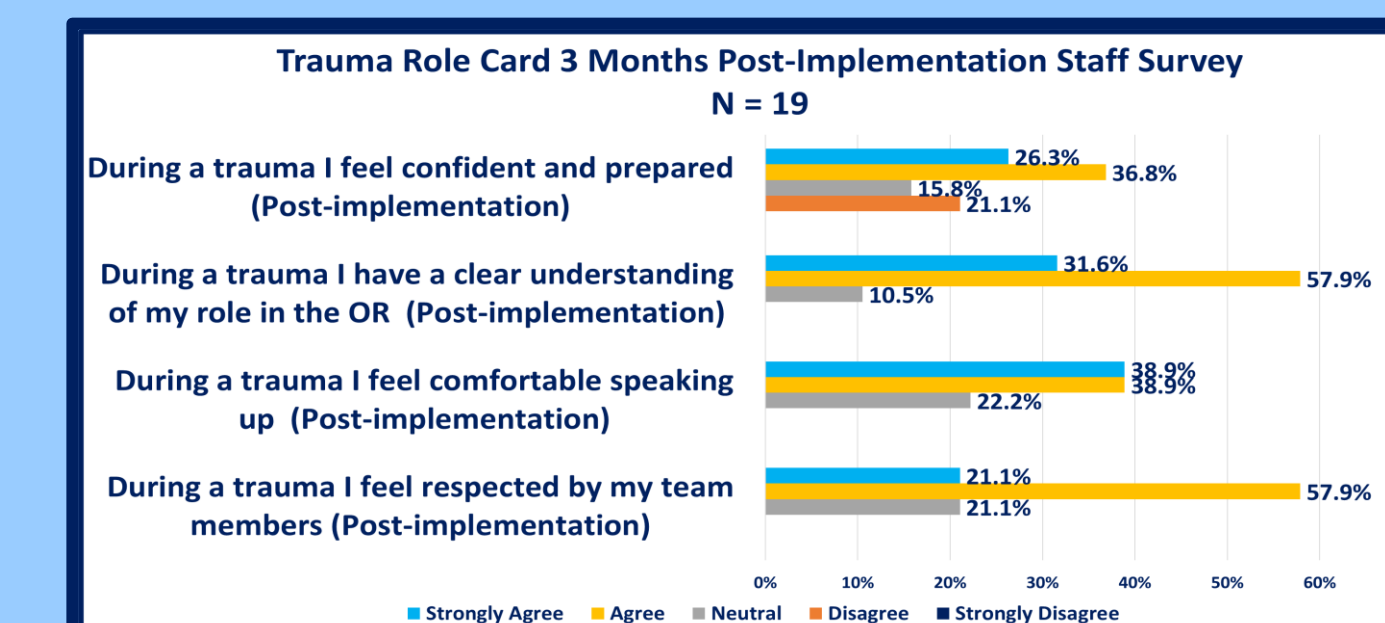
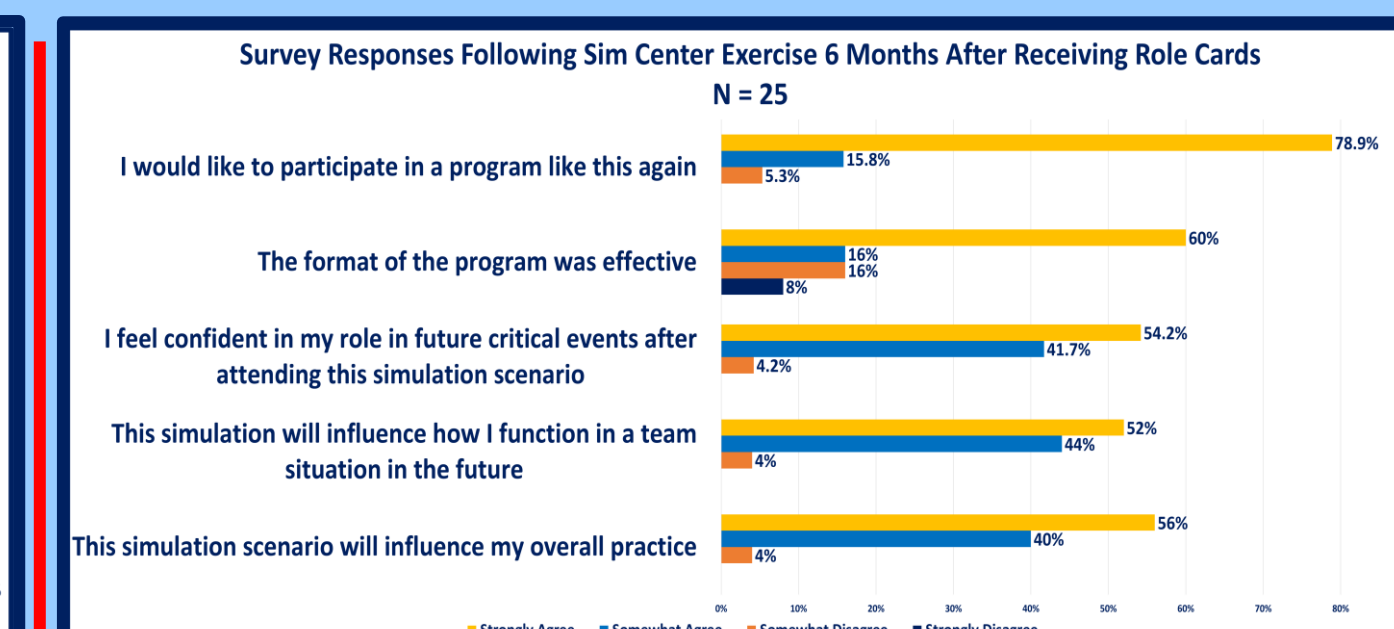
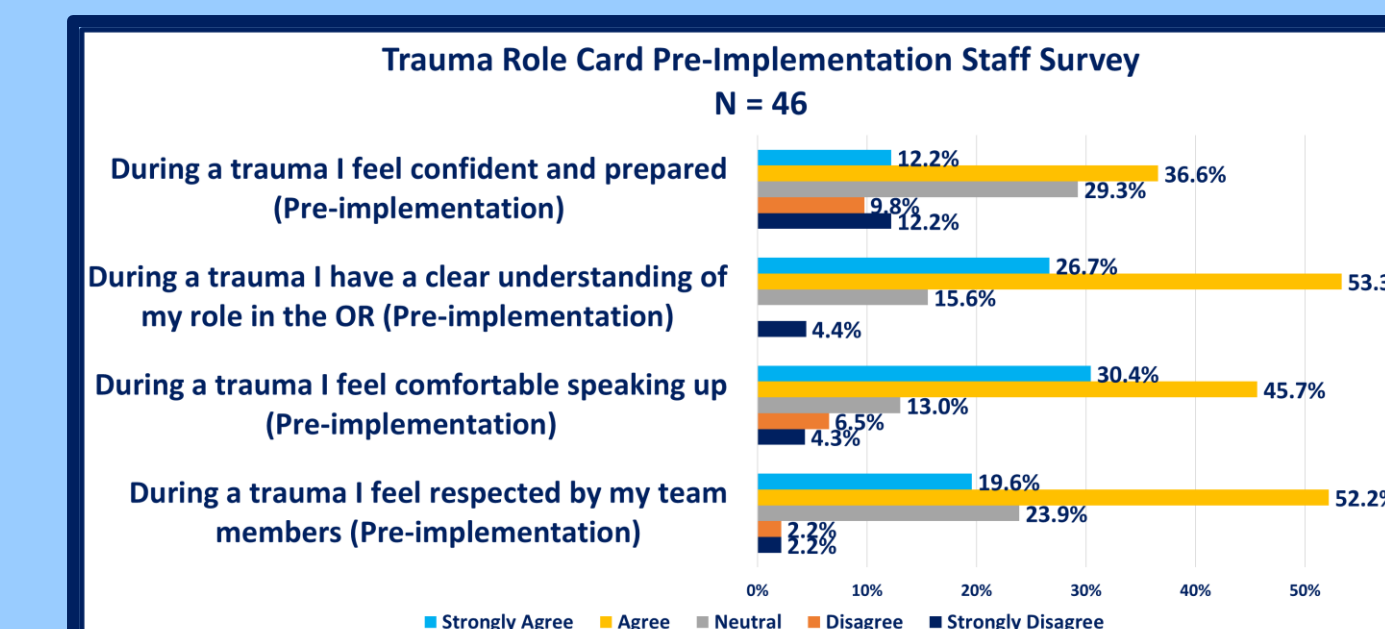
- Sim center simulation program opened to all OR nursing staff
- Staff sent preparation handout with objectives, policies and procedures (e.g., MTP)
- Non-HPT 3 circulator and scrub selected to participate in sim with support from HPT 3 circulator and scrub
- Quarterly HPT 3 interdisciplinary sim and debrief live streamed; active participant and observing staff survey
- Improvement tasks assigned

9 months

- Pre-simulation handouts
- Quarterly HPT 3 sim active participants will be non-HPT staff
- Sim and debrief live-stream with survey
- Assign tasks for improvement



OUTCOME



IMPLICATIONS FOR PERIOPERATIVE NURSING

Role cards provide standards for experienced and novice team members preparing for surgical trauma, while also helping non-team members share the mental model of the trauma team

Live streaming the debrief for non-team members facilitates knowledge transfer between employees and the retention of the same knowledge across the department as attrition occurs

The use of live streaming technology supports filling knowledge gaps and developing critical thinking skills through knowledge transfer, but does not support improving technical skills

While role cards, simulations, and debriefings help staff identify knowledge gaps, we did not find that staff sought out opportunities to close those gaps on their own

Hands-on learning opportunities such as real-time cases with debriefing and simulation with debriefing are more advantageous than participation in a case or simulation without debriefing

CONCLUSION

By giving role cards to staff as a visual prompt for review at their leisure but prior to engaging in a trauma operation, staff confidence was marginally raised

Those who studied the role cards in advance found the information to be helpful when observing the simulation and post-simulation debrief exercise

While role cards, and observation of simulations and debriefing are excellent tools for learning, we found that real learning happens when staff can actively participate in the simulation and debrief

Next Steps:

- The HPT will open monthly meetings to all staff
- Quarterly simulations
- Trauma skills day including nursing staff-only simulation
- Trauma surgery case studies and post-case debriefs

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