Improving Crisis Response for the Behavioral Mental Health Patient Using Simulation

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Background: Behavioral and mental health (BMH) crises are rapidly growing in pediatric hospitals. These concerns are addressed within quality initiatives for improving safety culture, such as the integration of team principles to optimize performance and improve patient outcomes. Simulation methodologies support these goals through the application of an evidence-based team training framework in a safe learning environment. Performance is further enhanced through the identification of latent safety threats (LST) within processes to mitigate safety concerns. Simulation-based team training was conducted for the new Behavioral Emergency Response Team (BERT). This interdisciplinary team is trained to respond to pediatric behavioral and mental health crises and is composed of BMH nurses, security officers, and house supervisors.

Objectives: Simulation objectives focused on improving the BERT’s response to crises by enhancing team dynamics through the incorporation of crisis resource management (CRM) principles and identification of processes improvements.

Methods: Standardized patients were hired to simulate various diagnoses, including anorexia nervosa, autism spectrum disorder, and traumatic brain injury. Traditional and rapid cycle deliberate practice (RCDP) methodologies were used during the scenarios to promote an evidence-based multidisciplinary approach during a patient crisis. Traditional reflective debriefings were then performed to reflect upon the team’s performance, practice changes, and LSTs within processes. Participants were given a pre- and postsurvey to measure knowledge and confidence in responding to crises.

Results: The Simulation Center, in collaboration with the BMH team, delivered 68 hours of simulations to 59 BERT responders. Surveys showed an increase in confidence levels, including a 19% increase in communication and the application of team principles (Fig. 1). Participants demonstrated an increase in knowledge regarding CRM principles as evidence by a presurvey mean of 84% compared with a postsurvey of 96%. Data note a 156% increase in the ability to identify shared cognition principles. Additionally, 18 distinct LSTs were identified and categorized for risk mitigation into a report (Table 1). BMH leaders were given the report to create process and training solutions. A 6-month follow-up revealed 72% of the LSTs were addressed through process changes and educational initiatives that worked to streamline care and improve team safety. Examples of implemented process changes include the development of an agitation medication algorithm for the Emergency Department and the standardization of a BMH emergency supply backpack.

Conclusions: This simulation-based training allowed BERT responders to identify LSTs and improve processes around care of BMH patients and team safety. Additionally, simulation allows trainers to hardwire a multidisciplinary team approach. Participants demonstrated an increase in competence and confidence, therefore catalyzing changes in practice.

Fig. 1. Anonymous pre- and postsurveys were utilized to gather participants’ confidence levels for BERT response processes and crisis resource management principles. Confidence was scored on a 5-point Likert scale.
Table 1. Categorization of Latent Safety Threats Identified in Simulation

| Latent Conditions | Latent Safety Threat Category |
|-------------------|------------------------------|
| **Education for new clinicians** | Policies and procedures |
| - Current practice gap in the utilization of coping plans. | |
| - Need for coping plan education during new staff orientation to understand BMH patient triggers and distractions. | |
| **Unclear policy** | Policies and procedures |
| - Need clear guidance on who will lead the BERT response if a BMH nurse is unavailable for that shift. | |
| **Team staffing** | Team dynamics and response |
| - Need for more BMH nurses due to high demand and lack of shift coverage. | |
| **Department-based education** | Policies and procedures |
| - GPC units require additional education on expectations of the primary nurse’s role. | |
| - Some primary nurses who requested BERT assistance leave crisis when BERT responds. This practice impedes communication of crucial patient information. | |
| **Accessibility of coping plans** | Equipment, supplies, and technology |
| - Challenging for teams to efficiently access coping plans on the computer during a BMH crisis. | |
| - Historically, teams will print coping plans to revisit during a BERT response. No standardized process for keeping printed copies in a central location. | |
| - Safety sitters do not know how to access coping plans, therefore hindering the ability to be involved and advocate for the patient. | |
| **Safety sitter report** | Policies and procedures |
| - Safety sitter transfer of care report is not always conducted. | |
| - Need a more formalized report to ensure patients’ conditions, triggers, distractors, and coping plans are communicated between safety sitters. | |
| **Buy-in regarding team principles** | Team dynamics and response |
| - Some simulation participants dismissive of using direct and closed loop communication and speaking in “third person.” | Medications |
| **Medication access and administration barriers** | Policies and procedures |
| - Difficult accessing medication orders from prescribing providers. | |
| - Delayed administration due to process of ordering, approval, and prepping medication in emergency. | |
| **BERT huddles** | Process and workflow |
| - Need for the standardization of BERT huddles with interdisciplinary team. | |
| - Current weekend process includes a 01:00 PM huddle with BMH nurses, security, house supervisors, and social workers. | |
| **Provider education** | Policies and procedures |
| - Residents’ roles and responsibilities during a BERT response are unclear. | |
| - Some providers are not responding when a patient is in a BMH crisis, causing a delay in receiving orders, medications, and assistance. | |
| **System education gap** | Policies and procedures |
| - Need more education regarding chemical restraints and when they are used. | |
| **BH-PE identifier on door** | Process and workflow |
| - Consider standardizing the process of placing a gold star on the patient door if they require BH-PE. | |
| **Editing coping plans** | Equipment, supplies, and technology |
| - Staff expressed difficulty in finding and modifying coping plans after the BMH crisis. | |
| - Staff editing the coping plans have trouble differentiating between calming techniques and de-escalation techniques. | |
| **BH-PE accessibility** | Environment |
| - Limited access to BH-PE cart/bag. The team must go to the house supervisor office to access equipment, therefore causing a delay. | |
| - Consider revisiting the process and responsibility of bringing items each time a crisis is announced overhead. | |
| **Clutter in the emergency department** | Equipment, supplies, and technology |
| - Emergency Department hallways are often cluttered with medical equipment, therefore making it difficult for the BMH team to efficiently move in area and establish a safe environment for the patient. | |
| - Patient could use items in hallway to hurt themselves or staff. | |
| - Consider minimizing or moving these items to a different location. | |
| **Behavioral restraints accessibility** | Equipment, supplies, and technology |
| - Behavioral restraint location is not standardized to be in a central location. | |
| **Phone usability** | Equipment, supplies, and technology |
| - Phones are unavailable to safety sitters, therefore causing difficulty for the safety sitters to communicate to BMH nurses. | |
| - Currently, bedside staff members do not receive a phone alert when a BERT is called on the unit. This lack of notification may cause a delay in crisis assistance. | |
| **Overhead BERT page** | Equipment, supplies, and technology |
| - Need to standardize overhead BERT paging tone and scripting. | |
| - Overhead BERT page needs to provide a clear location of the crisis. | |

Latent safety threats were identified by the BERT responders during simulation debriefs. The findings were assigned to 1 of 6 categories: (1) policies and procedures, (2) team dynamics and response, (3) equipment, supplies, and technology, (4) medication, (5) process and workflow, and (6) environment. A report was then generated and utilized for process improvement initiatives. BERT, Behavioral Emergency Response Team; BH-PE, behavioral health protective equipment; BMH, behavioral and mental health; GPC, general patient care.