A Clinical Simulation Model for Training Mental Health Professionals

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Disclosures

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  • This speaker has nothing to disclose
  • No financial interests

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  • No financial interests

Objectives

• Evaluate the curriculum for the integration of clinical simulation in psychiatric training

• Discuss simulation as an education strategy in teaching residents the clinical knowledge related to the care of psychiatric emergencies

• Describe the correlation between simulation and the learner's change in knowledge and attitude towards the management of psychiatric emergencies
“How can clinicians experience the difficulties of patient care without putting patients at undue risk?”

Discussions

• What are needs you see in your program/organization related to mental health or Work Place Violence (WPV)?

• What are the challenges or barriers you face in regards to facilitating simulations with a mental health or WPV component?

• What have been some successes you have experienced?

“Simulation is a technique—not a technology—to replace or amplify real experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner.”
Health Care: Work Place Violence

- Globally: health care workers constantly experience workplace aggression
- At least one incidence of violence in the previous year:
  - 75.8% @ Bulgaria
  - 67.2% @ Australia
  - 65% @ South Africa
  - 60% @ Portugal
  - 54% @ Thailand
  - 46.7% @ Brazil

Statistics

Healthcare workers face significant risks of job-related violence

- Nationally: health care workers are ranked as one of the most likely occupation to experience workplace aggression
  - 8 assaults per 10,000 workers
  - 50% have experienced verbal patient and visitor violence
  - 25% have experienced physical patient and visitor violence
- Can negatively affect the mental and physical well-being of health care staff
  - Symptoms of posttraumatic stress disorder and depression are frequent among victims
  - Anger, sadness, fear, disgust and surprise
- Can negatively affect the quality of the care provided
Health Care: Work Place Violence

• Characteristics of violent patients and visitors
  • Bi-modal age: 15 – 40 and 70 -85
  • Usually male
  • Health factors:
    • Recovering from unconsciousness
    • Prolonged organic brain syndrome
    • Dementia
    • Delirium, confusion and/or high arousal
    • Alcohol or illegal drug intoxication or withdrawal
    • Mental illness, mental handicap or psychiatric history

High Risk Behaviors or Situations

• Detained by law enforcement
• Altered mental status due to intoxication or the use of recreational drugs
• Difficulties with authority figures
• A history of violence
• Active hallucinations, paranoid delusions, manic states, or organic brain/brain injuries

Work Place Violence in Mental Health Settings

• Between 30% and 76% of psychiatric staff have been assaulted by a patient at least once in their career
• Prevalence of episodes of physical violence across the world:
  • 7.5% @ Italy
  • 7.7% @ Germany
  • 9.5% @ Switzerland
  • 12% @ Australian
  • 15% @ New Zealand
• 29% patients in residential facilities exhibited aggression
Continuum of Human Aggression

Discourtesy > Disrespect > Intimidation > Harassment/Bullying > Retaliation > Verbal Assault > Physical Aggression

Work Place Violence in Mental Health Settings

- Among psychiatry residents:
  - 73% reports being threatened
  - 33% reports receiving no training in managing violent patients

Benefits of Clinical Simulation

1. No risk is posed to a patient
   - Errors can be allowed to occur
   - Will facilitate performance critique

2. The same situation can be presented independently for evaluating individual or group performance
   - Routine procedures can be repeated intensively
   - Uncommon but serious problems can be presented
   - Remediation and practice is possible

3. The simulation can be frozen/restarted to allow discussion of the situation and its management including alternative strategies

4. Teach and assess ACGME competencies
Simulation in Mental Health

- Literature review on use of simulation in mental health care:
  - N = 48 reviewed
  - "very little empirical examination in the mental health sector"
- Seven different types of simulation methods commonly used:
  - Simulated/standardized patients and actors (n=17)
  - Virtual reality (n=9)
  - Role play (n=6)
  - Manikins (n=4)
  - Computer simulation (n=4)
  - Objective structured clinical examination (OSCE, n=4)
  - Voice simulation (use of sounds and voice through an electronic medium to portray auditory hallucination, n=4)

Simulation in Training Psychiatry Residents

- Simulation Aim: Expose clinicians to near misses and crisis situations that learners may not be comfortable managing during clinical training
- Educate clinicians how to evaluate for symptoms and signs of agitation and aggression
- Develop and practice clinical skills
- Provide evidence of competence before graduating
- Clinical Aim: Improve the education and training of clinicians via skills acquisition, maintenance and assessment
- Educate clinicians how to evaluate for symptoms and signs of agitation and aggression
- Develop and practice clinical skills
- Provide evidence of competence before graduating

Environmental Awareness
Situational Awareness is:

"The ability to identify, process, and comprehend the critical elements of information about what is happening to the team with regards to the mission."

"More simply, it's knowing what is going on around you."

Simulation in Training Psychiatry Residents

- Live in-person simulation course was developed:
  - 1-hour lecture + 4-hour of clinical simulation training
  - 4-hour clinical simulation training alone
- Various topics suggested by the American Psychiatric Association (APA) task force were incorporated
- All simulations included antecedents of violence, evaluation of violent patients and use of de-escalation techniques
- Course was tailored to be appropriate for the level of training based on Accreditation Council for Graduate (ACGME) milestones

ACGME Milestones

- Review and reporting every 6 months
  - Involves selecting the level of milestones that best describes a resident's current performance level
  - As residents progress, their knowledge and skills should grow
    - Allowing them to assume more responsibility and handle cases of greater complexity
- Milestones are arranged into domains with subcompetency levels:
  1. Patient Care (PC)
  2. Medical Knowledge (MK)
  3. Systems-Based Practice (SBP)
  4. Professionalism (PROF)
  5. Interpersonal and Communication Skills (ICS)
ACGME Milestones

• Has Not Achieved Level 1: The resident does not demonstrate the Milestones expected of an incoming resident
• Level 1: expected of an incoming resident
• Level 2: not yet performing at a midresidency level
• Level 3: demonstrates the majority of Milestones targeted for residency in this subcompetency
• Level 4: graduation target
• Level 5: demonstrating aspirational goals which might describe the performance of someone who has been in practice for several years

ACGME Milestones

Simulation in Training Psychiatry Residents

• Team:
  • Staff psychiatrist
  • A psychiatric nurse
  • Security officer
• 1-3 clinical simulators participated as "actors" in the simulation
• All psychiatry residents from the corresponding year required to be present unless excused
• Psychiatric Emergency Response Team (PERT)
Interdisciplinary Training

Intern Year

- Hallucination Interview
- Escalating Outpatient Drug Seeking
- Suicidal Gesture
- Physically Threatening

Heavy on inpatient psychiatry

1 month rotation in outpatient psychiatry
Second Year

- Escalating Pediatric Outpatient
- Escalating Adult Outpatient
- Homicidal ideation
- Physically Threatening

Supervising “senior” on call coverage

Third Year

- Contraband with Inappropriate Social Media Use
- Pregnant Leaving AMA
- Suicidal Patient with Attempt
- Physically Threatening

1 month rotation in emergency psychiatry

It’s time to get physical!
Disengagement Skills

Wrist Grab Release
Choke Release

Debriefing

- A lack of feedback may lead to:
  - Learning the wrong learning objective.
  - Not realizing what the desired behaviors should be by not focusing on them.
  - Not transferring skills to clinical practice.
  - Spending increasing time on only one aspect of training.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Sample Questions/Language</th>
<th>Phase</th>
<th>Sample Questions/Language</th>
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</thead>
</table>
| Author | "What are you thinking?"  "What are your thoughts?"  "How did that make you feel?" | Reactions | "How did that feel?"  "What are your initial thoughts?"  "What are your immediate reactions?"
| Analyze | "Before we delve deeper, I'd like to review the intended management for this scenario."  "Before we get started, I'd like to go over the appropriate steps for managing this patient." | Analysis | "First, I'd like to take a few minutes to present the facts of the case."  "Before we move on, I'd like to review the case so that everyone is on the same page."  "I noticed that you… Tell me more about that."  "How did you feel when…?"  "What were you thinking about when…?"
| Summarize | "Thank you all for your comments. I think we've had a great discussion. Let's consider some important take-away points."  "We've covered a number of topics, now I'd like everyone to think about what they want to take away from the experience." | Summary | "I noticed that you… I think that helped others to recognize… I'm wondering what you were thinking at then."  "When the patient was… I noticed that… was happening. I think that this may have caused… How do you see it?"
Evaluations: Rate your comfort with...

- Interviewing agitated patients and crisis situations
- Knowledge of causes of agitation
- Recognizing phases of escalation
- Recognizing imminent danger
- Verbal de-escalation skills
- Self-defense techniques
- Safety procedures and protocols applied in both hospitals
- Knowledge of pharmacotherapy for behavioral emergencies
- Ability to cooperate with other teams member involved in patients care in crisis situation

<table>
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<th>Question: Rate your comfort with...</th>
<th>Mean pre-score</th>
<th>Mean pre-score STD</th>
<th>Mean Post-score</th>
<th>Mean Post-score STD</th>
<th>T-test</th>
<th>P-value</th>
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<tbody>
<tr>
<td>Interviewing agitated patients and crisis situations</td>
<td>71%</td>
<td>16%</td>
<td>86%</td>
<td>17%</td>
<td>&lt;0.05</td>
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<tr>
<td>Knowledge of causes of agitation</td>
<td>75%</td>
<td>19%</td>
<td>84%</td>
<td>15%</td>
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<td>Recognizing phases of escalation</td>
<td>68%</td>
<td>19%</td>
<td>83%</td>
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<tr>
<td>Recognizing imminent danger</td>
<td>69%</td>
<td>18%</td>
<td>86%</td>
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<tr>
<td>Verbal de-escalation skills</td>
<td>70%</td>
<td>23%</td>
<td>84%</td>
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<tr>
<td>Self-defense techniques</td>
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<td>77%</td>
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<tr>
<td>Safety procedures and protocols</td>
<td>71%</td>
<td>13%</td>
<td>85%</td>
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<tr>
<td>Knowledge of pharmacotherapy for behavioral emergencies</td>
<td>79%</td>
<td>15%</td>
<td>89%</td>
<td>12%</td>
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<td>Ability to cooperate with other teams member involved in patients care in crisis situation</td>
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Implications

- Specific training in violence management using simulation-based learning that incorporates APA task force guidelines and clinical simulation appears effective in improving resident’s preparedness and comfort level in treating agitated patients.
- This suggests the role of simulation-based education in early training.
Implications

• Mental Health patients are not only cared for in the mental health environment, but throughout the healthcare system and these simulation experiences can be altered and tailored to meet the needs of all learners regardless of discipline, specialty, and level of experience.

Beyond Residency

• Use of actors to portray psychiatric patients in enhancing the assessment and therapeutic communication skills of third-year medical students.
• Use of actors to portray depressed adolescents in training pediatric residents’ interpersonal and diagnostic skills.

Beyond Residency

• Use of medical students to act anxious to assess the knowledge and diagnostic and management abilities of primary care providers.
• Use of standardized patients as substance abuse treatment clients to train substance abuse counselors.
Nursing students were trained on appropriate communication and clinical skills by following the admission of a simulated virtual patient (avatar) on an inpatient psychiatry unit.

Use of voice simulation to portray the experience of schizophrenia in training nursing students

**References**


