Post Anesthesia Care Unit Comprehensive Safety Quality Improvement Project on De-Escalation of Patients

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AGENDA

Introduction & Purpose
Background & Significance
Problem Statement
Literature Review
Project Description/Implementation
Results
Lessons Learned
Introduction and Purpose
National/Local Trends

- **2022** Globally 55% experienced workplace violence
  - 56.8% stated it occurred once or twice quarterly (Amal et al, 2022)
- **2022** United States 5,200 nursing personnel assaulted
  - 119% increase from March 2021 (Press Ganey, 2022)
  - **2022** Upstate NY Health System
    - 1,109 reports of aggressive behavior (U.S. Bureau of Labor of Statistics, 2022)
- **2021 RRH:** 1217 reported patient aggressive events (Fazal, 2022)
- **2022 RRH:** 1019 reported patient aggressive events (Fazal, 2022)
- **2021 RRH:** Completed 50,188 surgical cases (Fazal, 2022)
- **2022 RRH:** Completed 38,083 surgical cases
  - 107 left the facility against medical advice (AMA) 2.3% (Fazal, 2022)
  - 89 of them left the facility against medical advice (AMA) 2.3% (Fazal, 2022)
Background & Significance
Background

• De-escalation training, outside of specific specialties, is not mandated in healthcare in New York State (Annual Required Trainings, n.d.)

• Most hospital staff have little to no training in patient aggression (Lamont & Brunero, 2018)

• Minimal knowledge limits the ability and confidence to prevent and handle aggressive situations (Lamont & Brunero, 2018)

• Staff become frustrated and feel underprepared to address difficult patient interactions (Harwood, 2019)
Problem Statement
Comprehensive Unit-based Safety Program (CUSP) Intervention

Investigate how an education simulation curriculum could impact the PACU care team feelings of confidence and preparedness to manage aggressive patients.

- Poor staff confidence
- Lack of knowledge addressing escalating patient behaviors.
- Training on patient de-escalation and developing this as their CUSP project.

ROCHESTER REGIONAL HEALTH
Goals and Objectives

- Quality Improvement Project
- Staff Development
- Knowledge
- Safe Delivery of Care
- Increase Confidence
- Educate Staff
- Confidence
- Patient Staff Satisfaction

ROCHESTER REGIONAL HEALTH
Violence is seen as "part of the job" and accept it (Lamont & Brunero, 2018).

Lack of knowledge and confidence has led to increased staff stress, burn out, lower staff retention rates and can potentiate poor patient outcomes.

Lack of training on how to recognize and diffuse situations, leave staff frustrated and underprepared to address difficult patient interactions (Harwood, 2019).

Simulation training helps to improve confidence levels and improve patient outcomes.
Gaps in Literature

- Most articles and research are geared toward Psych and Emergency areas.

- Very little information on recognition and training for aggression in other areas of healthcare.

- Most current research is related to COVID.
Project Design (theory)

Kirkpatrick's Training Evaluation Model

Tool used for evaluating and analyzing the results of a training program to meet the needs the organization implementing the training and the staff who will participate, taking into account reaction, learning, behavior and results (Smidt et al 2009).

Quality and Safety Education for Nurses (QSEN)

Addresses the challenge of preparing future nurses with the knowledge, skills, and attitudes (KSAs) necessary to continuously improve the quality and safety of the healthcare systems within which they work. (QSEN, 2021)
Project Design

- Project was performed to evaluate the effect of simulation confidence preparedness in patient de-escalation with PACU staff in the PACU.
Implementation Process

Pre-Intervention

- Education/Communication
- AM Shift Huddles
- Assigned 30 min. Online training
- Consent via Learning Management System (LMS)
- Thackrey’s Clinician Confidence in Coping with Patient
- 10 question survey
- Aggression Instrument (CCCPAI) (1987)
- 11 point Likert scale
- Participants were anonymized
- Incentivized with a $5 hospital food voucher and additional continuing education credits
- Voluntary

Intervention

- 5 PACU participant roles
- Ran concurrently in 2 in situ rooms
- Maximum attendance over 2-month timeframe.
- 1-hour low fidelity simulation
- Randomly assigned observer role
- Measure the staff interaction using De-Escalation Aggressive Behavior Scale (EDABS), 2016
- 7 question survey using an 11 point Likert scale (Nau et al., 2010)
- Debrief with Good Judgment (Rudolph et al., 2007) framework
- EDART badge backer given

Post-Intervention

- Survey re-administration
- Analysis:
  - Recap program
  - Dr. Verghese, a Rochester Regional hospitalist and statistician, analyzed and interpreted the data
- Spearman Rank Correlation and Pearson Correlation method
## EDABS
(De-Escalation Aggressive Behavior Scale)

<table>
<thead>
<tr>
<th>No Security Necessary</th>
<th>Security Standby or on Unit</th>
<th>Security on Unit/Bedside</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Indicators</td>
<td>Signs of Aggression</td>
<td>Active Aggression</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient/Visitor Reaction</strong></td>
<td><strong>Staff Response</strong></td>
<td><strong>Patient/Visitor Reaction</strong></td>
</tr>
<tr>
<td>Crying</td>
<td>Verbal de-escalation</td>
<td>Pacing</td>
</tr>
<tr>
<td>Rocking</td>
<td>Silent Observation</td>
<td>Restlessness</td>
</tr>
<tr>
<td>Anxious</td>
<td>Attempt to distract or Redirect</td>
<td>Tone Change</td>
</tr>
<tr>
<td>Mumbling</td>
<td>Increased behavior from level 1</td>
<td>Name calling, demeaning comments or racial slurs</td>
</tr>
<tr>
<td>Rudeness</td>
<td>Increased staff rounds</td>
<td></td>
</tr>
<tr>
<td>Glaring or no eye contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritable/agitation</td>
<td></td>
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</tr>
</tbody>
</table>

### Early Indicators
- Anxious
- Tone Change
- Restlessness

### Signs of Aggression
- Increased behavior from level 1
- Name calling, demeaning comments or racial slurs

### Active Aggression
- Yelling/Screaming
- Clinched Fist
- Escalated/Uncontrollable behavior fromLevels 1 & 2 inside/outside of room

### Active Aggression
- Security as mediators
- Modify environment for safety
- Call provider
### Demographics

- 528-bed tertiary care hospital
- 34-bed Post Anesthesia Care Unit
- Sample of 60 staff ranging from RN’s, patient care technicians (PCT) and unit secretary

<table>
<thead>
<tr>
<th>Age</th>
<th>n (%)</th>
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<tbody>
<tr>
<td>20-25</td>
<td>3 (20)</td>
</tr>
<tr>
<td>26-30</td>
<td>1 (6.7)</td>
</tr>
<tr>
<td>31-35</td>
<td>1 (6.7)</td>
</tr>
<tr>
<td>36-40</td>
<td>0 (0)</td>
</tr>
<tr>
<td>41-45</td>
<td>0 (0)</td>
</tr>
<tr>
<td>46-50</td>
<td>2 (13)</td>
</tr>
<tr>
<td>51-55</td>
<td>1 (6.7)</td>
</tr>
<tr>
<td>56-60</td>
<td>2 (13.3)</td>
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</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>n (%)</th>
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<tbody>
<tr>
<td>Male</td>
<td>1 (6.7)</td>
</tr>
<tr>
<td>Female</td>
<td>14 (93.3)</td>
</tr>
<tr>
<td>Non-Binary</td>
<td>0 (0)</td>
</tr>
<tr>
<td>No Response</td>
<td>0 (0)</td>
</tr>
<tr>
<td>RN experience</td>
<td>Count</td>
</tr>
<tr>
<td>---------------</td>
<td>-------</td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>1</td>
</tr>
<tr>
<td>1-3 years</td>
<td>3</td>
</tr>
<tr>
<td>4-6 years</td>
<td>0</td>
</tr>
<tr>
<td>7-10 years</td>
<td>1</td>
</tr>
<tr>
<td>Greater than 11 years</td>
<td>9</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>PACU experience</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>2</td>
<td>13.3%</td>
</tr>
<tr>
<td>1-3 years</td>
<td>4</td>
<td>26.7%</td>
</tr>
<tr>
<td>4-6 years</td>
<td>2</td>
<td>13.3%</td>
</tr>
<tr>
<td>7-10 years</td>
<td>3</td>
<td>20%</td>
</tr>
<tr>
<td>Greater than 11 years</td>
<td>4</td>
<td>26.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prior De-escalation Training</th>
<th>Count</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Yes</td>
<td>4</td>
<td>26.7%</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>73.3%</td>
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</table>
Table 3 Thackery’s CCPA and length of time working in the PACU

<table>
<thead>
<tr>
<th>Spearman's rho</th>
<th>How long have you been an RN</th>
<th>How comfortable are you in working with an aggressive patient</th>
<th>How good is your current level of training for handling psychological aggression</th>
<th>How is your ability to intervene physically with an aggressive patient</th>
<th>How self-assured do you feel in the presence of an aggressive patient</th>
<th>How able are you to intervene with an aggressive patient</th>
<th>How good is your present level of training for handling physical aggression</th>
<th>How safe do you feel around an aggressive patient</th>
<th>How effective are the techniques that you know for dealing with aggression</th>
<th>How able are you to meet the needs of an aggressive patient</th>
<th>How able are you to protect yourself physically from an aggressive patient</th>
</tr>
</thead>
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<tr>
<td>Spearman's rho</td>
<td>How long have you been an RN</td>
<td>How comfortable are you in working with an aggressive patient</td>
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<td>How good is your present level of training for handling physical aggression</td>
<td>How safe do you feel around an aggressive patient</td>
<td>How effective are the techniques that you know for dealing with aggression</td>
<td>How able are you to meet the needs of an aggressive patient</td>
<td>How able are you to protect yourself physically from an aggressive patient</td>
</tr>
<tr>
<td>N</td>
<td>14</td>
<td>14</td>
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<td>14</td>
<td>14</td>
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<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
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<td>..</td>
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</tbody>
</table>

**Table 3 Thackery’s CCPA and length of time working in the PACU**

Thackery’s CCPA and length of time as an RN (N=60); p < 0.5
Table 4 Thackery’s CCPA and prior escalation training

|                                | Have you had any type of de-escalation training before | How comfortable are you in working with an aggressive patient | How good is your current level of training for handling psychologica l aggression | How is your ability to intervene physically with an aggressive patient | How self-assured do you feel in the presence of an aggressive patient | How able are you to intervene with an aggressive patient | How good is your present level of training for handling physical aggression | How safe do you feel around an aggressive patient | How effective are the techniques that you know for dealing with aggression | How able are you to meet the needs of an aggressive patient | How able are you to protect yourself physically from an aggressive patient |
|--------------------------------|-------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Pearson Correlation           | 1                                                     | .337                                                          | .071                                                                           | .151                                                                     | .273                                                                           | -.155                                                                    | -.231                                                                           | .321                                                                           | .060                                                                           | .080                                                                           | .361                                                                           |
| Sig. (2-tailed)                | .239                                                  | .810                                                          | .607                                                                           | .345                                                                     | .596                                                                           | .427                                                                    | .263                                                                           | .838                                                                           | .786                                                                           | .204                                                                           |
| N                              | 14                                                    | 14                                                             | 14                                                                             | 14                                                                       | 14                                                                             | 14                                                                     | 14                                                                             | 14                                                                             | 14                                                                             | 14                                                                             | 14                                                                             |

Table 5 Thackery’s CCPA and age (N=60; p<0.5)

<table>
<thead>
<tr>
<th></th>
<th>Age:</th>
<th>How comfortable are you in working with an aggressive patient</th>
<th>How good is your current level of training for handling psychological aggression</th>
<th>How is your ability to intervene physically with an aggressive patient</th>
<th>How self-assured do you feel in the presence of an aggressive patient</th>
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<th>How good is your present level of training for handling physical aggression</th>
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<th>How able are you to meet the needs of an aggressive patient</th>
<th>How able are you to protect yourself physically from an aggressive patient</th>
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<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>-.260</td>
<td>.180</td>
<td>.107</td>
<td>.151</td>
<td>.088</td>
<td>-.048</td>
<td>.383</td>
<td>.025</td>
<td>.065</td>
<td>.592*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.473</td>
<td>.538</td>
<td>.716</td>
<td>.607</td>
<td>.766</td>
<td>.870</td>
<td>.177</td>
<td>.933</td>
<td>.826</td>
<td>.026</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
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<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>
Table 6 EDABS Simulation Performance Score

Confirmation Bias

Evidence we ignore

Facts & Evidence

Evidence we believe

Our beliefs
Findings

- 78.6% staff members stated that they had no prior de-escalation training.

- There is a statistically significant difference in all questions about confidence, safety, knowledge and ability to care for patients when they become aggressive before and after training was provided.

- Statistically significant to moderate correlation between ages (22-60) and the ability to protect themselves from an aggressive patient, $r(98) = .592$, $p<0.26$. 

Limitations

• No best time to do this simulation due to shift work (8am and 4pm); staff were either tired from working all day/night or just coming in

• Real world patients harbored some from completing the entire simulation

• Completing on line training first, may have contributed to artificially elevated scores during live simulation.
Next Steps

• Incorporate training into orientation for all staff
• Reinforce training every year for sustainment
• Have each unit run their own simulation; modifying as needed to fit the needs of their staff.
Conclusion

• Confidence levels and better patient outcomes should improve by implementing and combining de-escalation virtual training with low fidelity in situ simulation followed by a strong, structured debrief on a more defined cadence.

• Further study and additional data is required to measure sustainability.
For further discussion or questions please contact me:

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References


