Disclosure

The speaker has no conflicts of interest to disclose.

Objectives

- Discussion of Background and Purpose
- Review of Materials & Methods
- Review of Results
- Discussion & Conclusions
INTRODUCTION

Psych Nurse in the ICU

American Nurses Association advocates for restraint free care with evidence-based guidelines to prevent multiple patient injuries from psychological trauma to death (ANA, 2011).

Restraining or secluding patients is viewed as contrary to the fundamental goals & ethical traditions in nursing.

It was frequently thought that without effective restraints, patients were in danger of injuring themselves or others.

Restraints have been used based on beliefs, not evidence, that patient safety is promoted.

BACKGROUND

Restraint Rates

Rates of restraint
- nurse sensitive measurements
- amenable to performance improvement
(Kleinpell, 2013)

Cultures in critical care areas have been
- reluctant to embrace paradigm shift
- maintain restraint use as a safe practice
(Cooper et al., 2014; King & Elliot, 2012; Lach et al., 2016; Stintson, 2016)

Culture & Nurse Stress

Violence, patient agitation & aggression
- related to resisting care
- trying to get OOB, leave hospital
- precipitates "safe" restraint use
(Gillen, 2013; McNett et al., 2012; Yont et al., 2014)

Nurses obliged to
- engage in self-care
- manage stress
- maintain therapeutic relationships
(APNA, 2014)
Relationship: Nurse Stress & Restraints

- Nurses apply restraints emergently after exhausting less restrictive measures
- Dynamics involved in the nurse/patient relationship are therefore crucial
- Providing RNs with stress management strategies- peer support and mindfulness
  - enhances communication skills for effective interventions in high emotive interactions

Evidence Gap

- A review of evidence revealed a gap: Educational strategies related to restraint reduction did not include mitigation of nurse stress

Project Question

Can significant Restraint Reduction occur through educational interventions that include techniques for decreasing nurse stress?

Project Goals

1) Restraint volume reduction
2) Increased nurse knowledge:
   a) negative restraint sequelae
   b) restraint alternatives
   c) stress- effects & mitigation
3) Reduction of nurse stress
**METHODS**

- **Collection of non-patient specific restraint volumes**
  - Academic, urban 700 bed Medical Center
  - MICU setting
  - January to May 2016

- **Email Survey Monkey requests**
  - 120 RNs, anonymous identifier
  - Two weeks prior & following a series of three educational presentations
  - Completion implied voluntary participation & informed consent

- **Survey**
  - Perceived Stress Scale (PSS-10) (Lee, 2012)
  - Demographic information
  - Knowledge items

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**Perceived Stress Scale**

**PSS-10**

1. In the last month, how often have you been upset because of something that happened unexpectedly?
2. How often have you felt that you were unable to control the important things in your life?
3. How often have you felt nervous and "stressed"?
4. How often have you felt confident about your ability to handle your personal problems?
5. How often have you felt that things were going your way?
6. How often have you found that you could not cope with all the things that you had to do?
7. How often have you been able to control irritations in your life?
8. How often have you felt that you were on top of things?
9. How often have you been angered because of things that were outside of your control?
10. How often have you felt difficulties were piling up so high that you could not overcome them?

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**Educational Presentations**

1. Negative Consequences of Restraint Use/Influences of Staff Stress
2. Restraint Alternatives/Mitigation of Staff Stress
3. De-escalation Communication/Plan for Personal Stress Management
Analysis

- Convenience sample
  - 14 RNs matched in pre & post PSS-10 enrolled

- Small sample size
  - non-normal distribution
  - required categorical data treatment

- Descriptive statistics
  - means, standard deviations, frequencies, percentages

Results

Sample Characteristics

- Female nurses (92.9%)
- Baccalaureate preparation (78.6%)
- 50% were between 26 to 35 years of age
- 50% had two years or less of RN experience
- Baseline PSS-10 average score 15.71 ± 5.76
- Correct knowledge questions 2.23 ± 0.60

Wilcoxon signed rank test
- no overall statistically significant finding
  however:
  Nurse stress and feelings of nervousness were significantly reduced

Pre and Post PSS-10 Results

PSS-10 items

<table>
<thead>
<tr>
<th>Item</th>
<th>Median Before</th>
<th>Median After</th>
<th>Z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How often have you been upset because of something that happened unexpectedly?</td>
<td>2.00</td>
<td>2.00</td>
<td>-1.25</td>
<td>.212</td>
</tr>
<tr>
<td>2. How often have you felt that you were unable to control the important things in your life?</td>
<td>2.00</td>
<td>1.50</td>
<td>-0.28</td>
<td>.782</td>
</tr>
<tr>
<td>3. How often have you felt nervous and &quot;stressed&quot;?</td>
<td>3.00</td>
<td>2.00</td>
<td>-2.11</td>
<td>.035</td>
</tr>
<tr>
<td>4. How often have you felt confident about your ability to handle personal problems?</td>
<td>3.00</td>
<td>3.00</td>
<td>.00</td>
<td>1.000</td>
</tr>
<tr>
<td>5. How often have you felt that things were going your way?</td>
<td>3.00</td>
<td>3.00</td>
<td>.00</td>
<td>1.000</td>
</tr>
<tr>
<td>6. How often have you found that you could not cope with all the things that you had to do?</td>
<td>1.50</td>
<td>2.00</td>
<td>-0.33</td>
<td>.739</td>
</tr>
<tr>
<td>7. How often have you been able to control irritations in your life?</td>
<td>3.00</td>
<td>3.00</td>
<td>-0.38</td>
<td>.705</td>
</tr>
<tr>
<td>8. How often have you felt that you were on top of things?</td>
<td>3.00</td>
<td>3.00</td>
<td>.00</td>
<td>1.000</td>
</tr>
<tr>
<td>9. How often have you been angered because of things that were outside of your control?</td>
<td>2.00</td>
<td>1.00</td>
<td>-1.51</td>
<td>.132</td>
</tr>
<tr>
<td>10. How often have you felt difficulties were piling up so high that you could not overcome them?</td>
<td>1.00</td>
<td>1.00</td>
<td>-0.51</td>
<td>.608</td>
</tr>
</tbody>
</table>

Differences in individual item PSS-10 scores before and after the intervention (Wilcoxon)

Noll
83.7% decrease in restraint volumes occurred in 20 weeks

Decreased nurse stress was favorably associated with decreased use of restraints

OVERALL FINDING
Decreased nurse stress positively associated with decreased restraint use

DISCUSSION

OVERALL FINDING
Decreased nurse stress positively associated with decreased restraint use

Suggestions Implied by Project
- Replication
  * Multiple units & hospital systems
  * Longer duration establish sustainability

- Results support other findings:
  * Nurse emotions have role in de-escalating, demanding situations
  * Increased ability for nurse empathy results in reduced restraints

(Parquihorson et al., 2013; Stinton, 2016; Yang et al., 2014)
Clinical Relevance

- Contributes to body of evidence regarding patient restraints as nurse driven effort
- Nurse stress has a role in clinical decision making patient restraint use
- Inclusion of mitigation of nurse stress in educational efforts for Restraint Reduction may enhance desired outcomes

Future Implications

- Research on recognition of stress as an essential part of improving patient outcomes is in its infancy
- Future studies needed to explore evidence-based strategies for practice (Pont & Koppel, 2015)
- Encouraging nurses to mitigate stress may enhance personal health & contribute to more positive patient outcomes
- Unwavering goal - continued efforts to minimize and eliminate patient restraints

Questions?

Thank you for your time and attention!

References


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