Using the Evidence: Developing an ICU Delirium Protocol

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Scope of Problem
- Delirium is a common brain disorder with an acute onset and fluctuating course occurring within Intensive Care Units (ICU).
- It is a serious medical condition associated with negative outcomes for patient safety and quality of care.
- > 7 million Americans develop delirium in hospitals each year.
- > 60% of patients with delirium are not properly diagnosed by healthcare providers.

Purpose and Objectives
- This quality improvement project emphasizes the importance of nursing contributions to delirium assessment and management in preventing complications that impact patient safety and quality of care.
- This project improves current nursing practice by improving nurses’ knowledge of delirium and implementing an effective delirium protocol.

Evidence-Based Initiative
- Several evidence-based studies demonstrated significant nurse enhancement of delirium knowledge, assessment, intervention, and prevention strategies through nursing education.
- Several evidence-based studies regarding delirium assessment, management, and care protocols that have yielded positive changes in patients’ outcomes.
- Structured educational nursing interventions and patient care protocols must be developed to improve delirium nursing practice.
- Conceptual Framework

The Knowledge to Action Framework

Project Plan
- Pre-Test (2 weeks)
  - Self-administered questionnaire regarding nurse’s demographic data
  - Assessment of Nursing Knowledge Regarding ICU Delirium
  - Assessment of Nursing Perception Levels on Usefulness of CAM-ICU and ABCDEF Care Bundle Items
  - Nursing Staff Compliance with Delirium Assessment Screening Instruments and Care Bundle Items

- Intervention (5 weeks)
  - Formal Didactic Educational Intervention for ICU Delirium
  - Formal Education for CAM-ICU Screening Tool and ABCDEF Delirium Care Protocol Bundle

- Post-Test (2 weeks)
  - Paired t-test to evaluate pre- and post-intervention delirium knowledge and the nurse's perception on use of delirium assessment tools and patient care bundles.
  - Evaluated the frequency of the proper usage of CAM-ICU assessment and ABCDEF patient care bundles.

Results and Evaluation
- Demographics and Experience
- Nurse’s Delirium Confidence Level
- Nurse’s Perception Level

Delirium Knowledge Scores (N=38)

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<thead>
<tr>
<th></th>
<th>Pre-test Correct (M(SD))</th>
<th>Post-test Correct (M(SD))</th>
<th>t(df)</th>
<th>p</th>
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<tr>
<td>Overall Knowledge</td>
<td>72.37 (12.83)</td>
<td>95 (6.47)</td>
<td>-9.29</td>
<td>p&lt;0.0001</td>
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Paired t-test (p<0.05): Significant changes in knowledge of delirium scores from pre- to post-test (P=0.0002)

Results and Evaluation Cont.
- Compliance Rates of CAM-ICU
  - Pre-test Frequency Rates (N=80)
  - Post-test Frequency Rates (N=76)

- Compliance Rates of ABCDEF Bundle
  - Pre-test Frequency Rates (N=80)
  - Post-test Frequency Rates (N=76)

Practice Implications
- Appropriate educational interventions significantly improve nursing knowledge and perception levels on ICU delirium assessment and management.
- Delirium assessments and management protocols at an institutional level must be developed for improved patient safety and practice change.

Conclusion
- This quality improvement project demonstrates that an educational intervention for nurses can result in improved knowledge of ICU delirium and nurse’s confidence and perception levels on usefulness of delirium assessment tools and intervention bundles.
- An adequate formal education involvement is essential to promote ICU delirium management practice and to develop delirium protocol.

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References