PAIN SCREENING IN THE DELIRIOUS PATIENT
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Purpose
The purpose of this project is to evaluate the Pain Assessment in Advanced Dementia (PAIN-AD) tool for pain screening of delirious patients in an acute urban academic setting.

Background
• Unaddressed pain may hasten death by increasing workload on the heart and respiratory system.
• Studies on pain screening in the cognitively impaired population are limited to dementia patients in long term care settings.
• Evidence is lacking in the best approaches to screen for pain in patients with delirium (an acute condition defined as decreased attention and cognition) in acute care settings.

Study Design
An observational case control study design was used. Thirty-six nonverbal delirious patients were observed by two trained providers to identify behavioral indicators of pain using two tools (PAIN-AD, Critical Care Pain Observation Tool [CPOT]).

An intervention was provided to patients who screened positive for pain. A reassessment was completed in thirty minutes to identify if the intervention was effective. Patients without pain were screened with the PAIN-AD and the CPOT again at 30 minutes.

Logic Model

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>OUTPUTS</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration with a diverse interdisciplinary team</td>
<td>Review the “Gold Standards” for pain screening from the literature</td>
<td>Short increased pain treatment knowledge</td>
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<tr>
<td>Review Pain-AD and Critical Care Pain Observation Tool (CPOT)</td>
<td>Review study ethics committee</td>
<td>Increased skill in pain screening</td>
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<tr>
<td>Staff time and motivation to complete patient identification</td>
<td>Established partnerships</td>
<td>Medium improved patient pain screening outcomes</td>
</tr>
<tr>
<td>Who is Involved</td>
<td>Patient education</td>
<td>Long improved patient/family experiences</td>
</tr>
<tr>
<td>Administration, Clinical Nurse Specialist (CNS), nursing staff, research assistants, statistician</td>
<td>Improved pain management</td>
<td>Enhanced improvement of nurses</td>
</tr>
</tbody>
</table>

Results
Participants were predominantly white (75%) and female (54.3%). The mean age was 86.14 years (range 65 - 96, 8.4 SD). Dementia and infection diagnoses were common (69.4% and 45.7% respectively). The mean length of stay (LOS) was 5 days (4.5 SD).

PAIN-AD
• PAIN-AD scores ranged from 4.47 – 4.53 pre-intervention to 2.88-2.94 post-intervention (Figure 1 & 2). Inter-rater reliability was excellent at baseline and 30 minutes (0.99). For patients without pain, test-retest scores reflect adequate reliability (0.72-0.73). The Cronbach’s Alpha coefficient for the PAIN-AD reflects strong internal consistency (0.80 - 0.87).

CPOT
• CPOT scores among participants ranged from 3.29 – 3.29 pre-intervention and 2.53 – 2.53 at post intervention. The CPOT had strong inter-rater reliability both at baseline and after 30 minutes (0.99). Test and retest scores exemplified poor reliability at baseline and thirty minutes after screening (0.30 – 0.49). The Cronbach’s Alpha coefficient for the CPOT demonstrates credible internal consistency (0.82-0.89).

Future Research
• With diverse populations and larger samples.
• With delirium screening methods.

Implications for Practice
• Nursing staff require repeated, comprehensive education to appropriately screen for both delirium and pain.
• Pain interventions implemented in real time decrease the likelihood of worsening delirium.
• Bridging pain management with delirium prevention will improve patient outcomes and cost of overall care.

Conclusions
• The PAIN-AD is a valid and reliable tool for pain screening in the delirious geriatric population in acute care settings.
• The logic model provided a useful framework for facilitation of this study.

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For More Information