Fall Prevention Algorithm for the Older Adult Population: A DNP Project Utilizing Evidence-Based Practice and Translational Research

Jeffrey Williams, DNP, RN, CCRN, CCNS
Assistant Clinical Professor
Texas Woman’s University – Dallas, TX
Disclosure / Objectives

Jeffrey Williams, DNP, RN, CCRN, CCNS
Texas Woman’s University
Nothing to disclose- No monetary support, no sponsorships, and no commercial support.

1. Identify how translational research can be utilized for implementing evidence-based practices.

2. Evaluate fall prevention strategies in the older adult patient population.
Project Goals

• Review and synthesize the current literature
  – Fall risk assessment/fall risk screening
  – Multifactorial interventions for fall prevention strategies

• Translate an existing fall prevention algorithm into an adapted version for use in the acute care setting

• Pilot the adapted algorithm on one acute care unit
Guiding Framework: ACE Star Model

From ACE Star Model of EBP: Knowledge Transformation. By K. Stevens, 2004, Academic Center for Evidence-based Practice. The University of Texas Health Science Center at San Antonio. Copyright 2004 by Academic Center for Excellence. Reprinted with permission
Review of the Literature

• Literature search and review for fall prevention strategies
  – Fall risk assessment/fall risk screening
  – Multifactorial interventions
Fall risk assessment/screening

- Multiple research articles support the use of a fall risk assessment/screening tool
  - Assessment tools that are specific to various care settings are beneficial (Perell et al., 2001)
  - Functional assessment is important for predicting falls (Gates et al., 2008)
  - Targeting specific risk factors was found to reduce the number of falls in the older adult (Healey et al., 2004)
Fall risk assessment/screening

- Fall risk screening questions
  - Does the patient present with a fall?
  - Has the patient had >2 falls in the last 12 months?
  - Does the patient report having trouble with walking/gait and/or balance?
Multifactorial interventions

- Multiple articles support the utilization of multifactorial interventions that target specific risk factors
  - Specific targeted risk reduction strategies can help prevent falls in the hospital (Cameron et al., 2010 & Oliver et al., 2010)
  - Multifactorial interventions aimed at falls prevention are beneficial (Gillespie et al., 2009)
Implementation setting

- UT Southwestern Medical Center located in Dallas, Texas.
  - Two University Hospitals with a total of 450 beds
    - University Hospital- St Paul
      - 3 South
Implementation

Project development

• Adapted algorithm
  – Education for RN mgr, RN coordinators, and staff
  – Education on Timed Up and Go (TUG) test

• Survey of the nurses
  – Evaluation of adapted algorithm

Fall prevention brochure
  – Already in use
Project Results: Participants

- Patients over the age of 65 admitted to the pilot unit between February 1, 2013 and March 1, 2013
  - Excluded surgical patients

- Nurses on the pilot unit
  - Total of 30 full-time RNs
  - 23 out 30 completed the survey (77%)
Project Results: Evaluation

• Outcome measures
  – Number of falls
    • Pre project – 2
    • Post project – 1
  – Fall rate
    • Pre project – 2.5 falls per 1000 patient days
    • Post project – 1.2 falls per 1000 patient days
  – Nurse survey
## Survey Results

<table>
<thead>
<tr>
<th>Question</th>
<th>Completely disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Completely agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you receive sufficient education on the use of the adapted algorithm?</td>
<td>0%</td>
<td>8.7%</td>
<td>8.7%</td>
<td>60.9%</td>
<td>21.7%</td>
</tr>
<tr>
<td>Do you feel the TUG test is simple to perform?</td>
<td>0%</td>
<td>0%</td>
<td>4.3%</td>
<td>52.2%</td>
<td>43.5%</td>
</tr>
<tr>
<td>Do you feel the adapted algorithm is a beneficial tool?</td>
<td>4.3%</td>
<td>4.3%</td>
<td>17.4%</td>
<td>47.8%</td>
<td>26.1%</td>
</tr>
<tr>
<td>Did you have difficulty following the adapted algorithm?</td>
<td>17.4%</td>
<td>65.2%</td>
<td>8.7%</td>
<td>8.7%</td>
<td>0%</td>
</tr>
<tr>
<td>Are you comfortable answering any questions the patient may have about preventing falls both in the hospital and at home?</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>60.9%</td>
<td>39.1%</td>
</tr>
</tbody>
</table>
Questions and Comments

Jeffrey Williams, DNP, RN, CCRN, CCNS
Texas Woman’s University
Dallas, TX 75235
jwilliams57@twu.edu