Team Reflexivity and Patient Falls: Implications for Training

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Inpatient Falls

- Inpatient falls remain a common, costly, and serious adverse event in all hospitals (Healey & Scobie, 2007)

- Hospitals implement fall risk reduction programs to minimize the incidence of inpatient falls

- What fall risk reduction program structures and processes lead to reduced numbers of falls?
Teams as an Accountability Structure for Fall Risk Reduction

- Structure of healthcare is the primary determinant of the quality of care a system can offer *(Donabedian, 2003)*
  - Use of teams

- Decreasing fall risk requires a team approach *(Sulla & McMyler, 2007)*

- Interprofessional teams in which all members played an active role in fall risk reduction were successful in sustaining decreases in fall rates *(Barker, Kamar, Morton, & Berlowitz, 2009; Gowdy & Godfrey, 2003; Szumlas, Groszek, Kitt, Payson, & Stack, 2004; von Renteln-Kruse & Krause, 2007)*
Team Reflexivity and Fall Risk Reduction

- Reflexivity refers to “the extent to which group members overtly reflect upon the group’s objectives, strategies and processes, and adapt them to current or anticipated circumstances” (West, 1996, p. 559)


- Reflexivity has not been studied in the context of fall risk reduction

- Teams can facilitate and benefit from organizational learning (Senge, 1990)

  - Integration of multidisciplinary evidence and perspectives
Research Questions

1: To what extent are teams used to implement fall risk reduction programs?

2: Is the use of a fall risk reduction team associated with reduced total fall and injurious fall rates?

3: What team activities are associated with reduced total fall and injurious fall rates?
   a: Integration of multidisciplinary evidence to support fall risk reduction
   b: Reflection on fall data and rates, the reliability of processes to reduce falls, the causes of inpatient falls, and the success of fall risk reduction policies
Sample and Methodology

- Invited 83 general community hospitals in the central U.S. to participate in a hospital fall risk assessment survey
  - Response rate of 73.29% (60 of 83 hospitals)

- Target survey recipient was the person most knowledgeable about fall risk reduction within the hospital
  - Registered nurses who were often quality improvement coordinators, patient safety officers, risk managers, or managers of performance improvement
Accountability Structure

Does your hospital have an individual or team who is accountable for implementing your fall risk reduction program?

- Yes, an individual
- Yes, a team
- No, neither an individual nor a team
Integrate Multidisciplinary Evidence

- Our fall risk reduction team integrates evidence from multiple disciplines (e.g., medicine, nursing, physical therapy, pharmacy) to continually improve fall risk reduction efforts.
  - 1 to 5 frequency scale
  - Coded to represent always/frequently vs. sometimes/rarely/never
Team Reflexivity

- Please indicate the activities performed by your fall risk reduction team:
  1. Collect data regarding fall risk reduction program outcomes
  2. Analyze data regarding fall risk reduction program outcomes
  3. Modify fall risk reduction policies and procedures based on outcomes data
  4. Conduct or participate in individual root cause analyses of injurious falls

- Team reflexivity coded as present if the target recipient responded “Yes” to all four of these questions
Fall Rates

- Quantified risk of a fall associated with exposure to hospitalization
  - Incidence rate of **total** falls per 1000 patient days
    - Assisted, unassisted, injurious
  - Incidence rate of **injurious** falls per 1000 patient days
    - Minor, moderate, major injuries, and death
Accountability Structure for Fall Risk Reduction and Fall Rate Outcomes

<table>
<thead>
<tr>
<th>No one (n = 13)</th>
<th>Individual (n = 13)</th>
<th>Team (n = 34)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Falls per 1000 Patient Days</td>
<td>Injurious Falls per 1000 Patient Days</td>
<td></td>
</tr>
<tr>
<td>8.1</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>5.3&lt;sup&gt;t&lt;/sup&gt;</td>
<td>1.1**</td>
<td></td>
</tr>
<tr>
<td>5.2&lt;sup&gt;t&lt;/sup&gt;</td>
<td>1.2**</td>
<td></td>
</tr>
</tbody>
</table>

<sup>t</sup>p < .10, **p < .01
Integration of Multidisciplinary Evidence and Fall Rate Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Total Falls per 1000 Patient Days</th>
<th>Injurious Falls per 1000 Patient Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes/Rarely/Never</td>
<td>6.8</td>
<td>4.8*</td>
</tr>
<tr>
<td>Always/Frequently</td>
<td>2.2</td>
<td>1.0**</td>
</tr>
</tbody>
</table>

- Sometimes/Rarely/Never Integrate Multidisciplinary Evidence (n = 32)
- Always/Frequently Integrate Multidisciplinary Evidence (n = 27)

*p < .05, **p < .01
Reflexivity and Fall Rate Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Total Falls per 1000 Patient Days</th>
<th>Injurious Falls per 1000 Patient Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, Team Does Not Reflect (n = 37)</td>
<td>6.5</td>
<td><strong>2.1</strong></td>
</tr>
<tr>
<td>Yes, Team Reflects (n = 23)</td>
<td><strong>4.7</strong></td>
<td><strong>0.9</strong></td>
</tr>
</tbody>
</table>

\( ^t p < .10, ^* p < .01 \)
Takeaway Points

- Hospitals in which nobody was accountable for falls had injury rates three times greater than those in which an individual or team was accountable for fall risk reduction.

- Hospitals in which teams integrated evidence from multiple disciplines had lower total and injurious fall rates than those that did not integrate evidence.

- Hospitals in which teams engaged in reflexivity had injury rates half that of those in which teams did not engage in reflexive behaviors.
Strengths and Limitations

- Self-reported survey design with single respondent per hospital
  - Baseline survey to establish the use, or not, of teams
  - Not able to assess team perceptions of reflexivity or integration of interdisciplinary evidence

- Contextual assessment of reflexivity
- Standardized measure of fall outcomes
Training Implications

- Support the formation of fall risk reduction teams
- Establishing education and training programs to develop and encourage the use of reflexive skills and activities

When teams reflect on outcome data, and the policies and procedures that produced those outcomes, they are more likely to learn from errors and mistakes and adapt their actions to minimize future risks (De Dreu, 2002)
Training Implications

- Establishment and modification of fall prevention policies
- Collection of fall data
  - Accuracy and completeness of fall reports
- Analysis of fall data
  - Individual and aggregate root-cause analysis
  - Post-fall huddle
- Interdisciplinary team communication
  - Information sharing and understanding to improve the quality of team reflexivity
Thank you!