RE-EXAMINATION OF THE PSYCHOMETRIC PROPERTIES OF THE NURSES’ PERCEPTION OF PATIENT ROUNDEDING SCALE (NPPRS)

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RE-EMERGENCE OF THE PRACTICE OF PATIENT ROUNDING

• Hourly rounds, defined as the “intentional checking on patients at regular intervals”, (Halm, 2009, p. 581) has re-emerged as a standard practice initiative.

• Literature is highly supportive of patient rounding as a appropriate, safe, useful practice, yielding nurse and patient benefits.
LITERATURE REVIEW SUBSTANTIATED:

- Decreased Call lights
- Decreased Falls
- Increased levels of patient satisfaction
- Hospital satisfaction associated with nursing
- Key: Excellence in Care is based on nursing presence: Perceived Availability and Visibility.
- Quality Care = Effective communication, kindness, availability, pain management, making time for patients, responding to patient needs, and reduced uncertainty (about nurse returning).
LITERATURE REVIEW: ROUNDING AND NURSING

• Patient satisfaction = Nurses Satisfaction

• Evidence supports than Rounding enhances work environment- improved patient care management and achievement of greater work efficiency.

• Summary: While previous studies provided evidence describing protocol & outcomes, far fewer have explored nurses perceptions of patient rounding.
ISSUES OF ROUNDDING:

Halm (2009) acknowledged hourly rounding as being controversial/challenges:

1. Formal Scripting (autonomy)
2. Adequate Skill Mix
3. Patient Acuity
4. Documentation Demands
METHODOLOGY

• Initiated in 2010.
• Impetus: Need to engage staff in the conduct of nursing research.
• Initial consultation with advanced practice nurses to identify areas of need/concern.
• Staff recognized mandatory practice without assessment.
METHODOLOGY (CONTINUED)

• IRB approved
• Convenience sample of RN’s on 5 units
• Full, part time and per diem nurses eligible
• Demographic & NPPRS distributed
• 150 questionnaires distributed (49 = 33% response rate)
• Anonymous responses/dropbox
DEVELOPMENT OF THE NURSES’ PERCEPTION OF PATIENT ROUNding SCALE

- Searched the literature/Formulated initial items.
- Face validity established.
- Content validity established by panel of experts.
- Conducted pilot study.
- Analyzed data; calculated reliability.
NURSES’ PERCEPTION OF PATIENT ROUNding SCALE

• A 42 item scale in 5 point likert format to assess nurses’ perception of hourly rounding.

• Communication = “Rounding is a practice that facilitates improved verbal and nonverbal communication between nurses and patients”.

• Nurse Benefits = “Rounding is a constructive use of nurses’ time”.

• Patient Benefits = “Rounding reduces patient and family uncertainty about their illness”.

• Qualitative items = Suggestions/recommendations/identification of patient issues influencing rounding.
NPPRS: CRONBACH’S ALPHA RELIABILITY COEFFICIENTS

- Subscale: Communication = .83
- Subscale: Patient Benefits = .87
- Subscale: Nurse Benefits = .73
- NPPRS Total = .92
RESULTS: OVERALL FAVORABLE PERCEPTIONS REGARDING THE PRACTICE OF ROUNDING

Total Rounding \( (X = 171, \ SD = 10.63) \)
Possible score 42 - 210

Communication \( (X = 64.4, \ SD = 3.84) \)
Possible score 15 - 80

Nurse Benefits \( (X = 29.5, \ SD = 5.08) \)
Possible score 8 - 40

Patient Benefits \( (X = 38.57, \ SD = 4.42) \)
Possible score 9 - 45
KEY FINDINGS OF PILOT:

- Nurses perceived greater benefits for patients than themselves.
- Qualitative responses consistent with literature identifying issues.
- Nurses use autonomous assessment to determine patient needs.
- Increased documentation takes away from patients.
- Skill mix varies (PCT’s).
- Patient Acuity remains paramount.
VALIDATION OF THE NPPRS: PURPOSE

- Explore nurses’ perception of the practice of hourly patient rounding.
- Examine the influence of nurses’ shift and hours worked on nurses’ perception of patient rounding.
- Provide additional psychometric support for the NPPRS.
LITERATURE REVIEW:

• According to Studer (2008), a pioneer in the resurgence of the concept of hourly rounding, successful rounding requires the cooperation of all staff along with the practice of consistent leadership rounds.

• Meade et al. (2006) conducted a national, quasi-experimental nonequivalent group design research project in which 22 medical, surgical, and medical-surgical units participated, using the 4 Ps and scripting in conducting hourly rounds.

• Rounding is an intervention completed by nurses and ancillary staff, and supported by nursing leadership.
LITERATURE: EFFECTIVE WAYS TO REINFORCE ROUNDELING INITIATIVES

1. Leadership Support
2. Staff Champions
3. Educational Support
4. Hardwiring the use of an Hourly Rounding Protocol
LITERATURE REVIEW:
NURSING PERCEPTIONS

• Neville et al. (2012) conducted a descriptive pilot study using the NPPRS. Rounding was perceived to be a benefit to patients and families, nurses identified less benefit to their professional practice.

• Oleni et al. (2004) evaluated nursing care at night from nurses’ and patient perspectives; identified that patients’ daytime and nighttime needs are not identical.

  **Nursing care at night has unique aspects that are not a feature of daytime nursing care.**

  **No studies investigated hours or shift worked**

  **Hours Worked = 8, 12 or combined hours**

  **Shift = days, evenings or nights**
METHOD:

- A descriptive exploratory design.
- The newly developed tool, the NPPRS, a 42 item scale in 5 point Likert format, and demographic information sheet was used.
  - 3 open ended questions (definition, influence of shift, and nurse leadership) were posed.
- Convenience sample of anonymous nurse participants (n=76) from 5 medical-surgical units at a large magnet institution with 2 sites participated in this study.
## Results: Demographics

<table>
<thead>
<tr>
<th></th>
<th>Site 1</th>
<th>Site 2</th>
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<tbody>
<tr>
<td>N = 76</td>
<td></td>
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</tr>
<tr>
<td>Full Time</td>
<td>34</td>
<td>26</td>
</tr>
<tr>
<td>Part-Time</td>
<td>06</td>
<td>06</td>
</tr>
<tr>
<td>Per Diem</td>
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<td>02</td>
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<td>00</td>
<td>01</td>
</tr>
<tr>
<td>12 Hour</td>
<td>09</td>
<td>18</td>
</tr>
<tr>
<td>8 Hour</td>
<td>31</td>
<td>14</td>
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<tr>
<td>Combined</td>
<td>01</td>
<td>03</td>
</tr>
<tr>
<td>7AM - 3PM</td>
<td>13</td>
<td>06</td>
</tr>
<tr>
<td>3PM - 11PM</td>
<td>11</td>
<td>04</td>
</tr>
<tr>
<td>11PM - 7AM</td>
<td>07</td>
<td>03</td>
</tr>
<tr>
<td>7AM - 7PM</td>
<td>04</td>
<td>11</td>
</tr>
<tr>
<td>7PM - 7AM</td>
<td>05</td>
<td>07</td>
</tr>
<tr>
<td>Combined</td>
<td>01</td>
<td>04</td>
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### ALPHA COEFFICIENTS FOR THE NPPRS AND SUBSCALES

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cronbach’s Alpha</th>
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<tbody>
<tr>
<td>Total Scale</td>
<td>.91</td>
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<tr>
<td>Subscale: Communication</td>
<td>.79</td>
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<tr>
<td>Subscale: Nurse Benefits</td>
<td>.84</td>
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<tr>
<td>Subscale: Patients Benefits</td>
<td>.85</td>
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</table>
# Results: NPPRS and Subscales

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
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<tbody>
<tr>
<td>Total Scale</td>
<td>154.34</td>
<td>17.36</td>
<td>42 - 210</td>
</tr>
<tr>
<td>Subscale: Nurse Benefits</td>
<td>34.85</td>
<td>6.56</td>
<td>8 - 40</td>
</tr>
<tr>
<td>Subscale: Communication</td>
<td>62.19</td>
<td>6.46</td>
<td>16 - 80</td>
</tr>
</tbody>
</table>
RESULTS

• There were no statistically significant differences among total rounding, patient benefits, communication, and nurses working day shift with nursing leaders versus working evenings or nights with less nurse leaders.

• However, nurse benefits was a significant variable.
### RESULTS

#### Mean Scores and SD for Nurse Benefits by Hourly Workload

<table>
<thead>
<tr>
<th>Hourly Workload</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
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<tr>
<td>7AM - 7PM</td>
<td>15</td>
<td>33.86</td>
<td>6.89</td>
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<tr>
<td>7PM - 7 AM</td>
<td>12</td>
<td>33.16</td>
<td>7.60</td>
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<tr>
<td>7AM - 3PM</td>
<td>19</td>
<td>36.52</td>
<td>6.51</td>
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<tr>
<td>3PM - 11PM</td>
<td>15</td>
<td>36.00</td>
<td>4.14</td>
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<tr>
<td>11PM - 7AM</td>
<td>10</td>
<td>37.00</td>
<td>5.73</td>
</tr>
<tr>
<td>Combined Shifts</td>
<td>5</td>
<td>27.60</td>
<td>6.87</td>
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</table>
## Results

### Analysis of Variance for Nurse Benefits by Hourly Workload

<table>
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<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
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<tbody>
<tr>
<td>Nurse Benefit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between</td>
<td>142.83</td>
<td>1</td>
<td>142.83</td>
<td>3.76</td>
<td>0.05</td>
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<tr>
<td>Within</td>
<td>2615.64</td>
<td>69</td>
<td>37.90</td>
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</tr>
<tr>
<td>Total</td>
<td>2758.47</td>
<td>70</td>
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</table>

Findings: Any 8 hour workload had higher nurse benefits than 12 or combined 8 & 12 workloads
## Comparison of Means and Standard Deviations of Pilot and Replication

<table>
<thead>
<tr>
<th></th>
<th>Pilot</th>
<th>Replication</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Neville, Lake, Paul, LeMunyon, &amp; Whitmore</td>
<td>Neville, DiBona, &amp; Mahler,</td>
</tr>
<tr>
<td>Total Scale</td>
<td>( X = 159.62 \ (18.2) )</td>
<td>( X = 154.34 \ (17.37) )</td>
</tr>
<tr>
<td>Communication</td>
<td>( X = 64.40 \ (3.84) )</td>
<td>( X = 62.19 \ (6.46) )</td>
</tr>
<tr>
<td>Nurse Benefit</td>
<td>( X = 27.83 \ (5.03) )</td>
<td>( X = 34.85 \ (6.56) )</td>
</tr>
<tr>
<td>Patient Benefits</td>
<td>( X = 36.54 \ (5.06) )</td>
<td>( X = 29.93 \ (4.42) )</td>
</tr>
</tbody>
</table>
QUALITATIVE ANALYSIS

• Thematic Analysis revealed that leadership support was instrumental to the practice of rounding.

“Nursing Leadership are the ones who initiated the rounding and the tool for documentation. They are very supportive.”

• Nurse responsibilities vary based on shift and each shift possesses unique challenges:
  • Day Shift Nurses present in rooms.
  • Evening Shift busy with admissions & discharges.
  • Night Shift patients are sleeping.

• This potentially explains the difference in patient benefit scores between the pilot and present study.
DISCUSSION

Demographic data provided in this study enhances the knowledge regarding nurses’ perceptions of patient rounding, examining:

- **Hourly Workload & Shift**

  Nurse leadership was highly evident on all shifts which may have contributed to the lack of significance.

- Nurse participants perceived rounding to be more beneficial to their practice than to their patients, possibly due to:

  - **Variety of Shifts Worked by Nurse Participants**

- Statistically Significant Difference found between:
  
  - **Hourly Workload and the Nurse Benefits Subscale**
DISCUSSION

- Nurse participants in this study identified challenges in the practice of rounding, reflecting similar challenges identified by Halm (2009):
  - Scripting, Autonomy, Adequate Support Staff, Patient Acuity, and Documentation Demands.
- Leadership support for the practice of rounding was highly evident.
- Implications for further studies:
  - Creation of rounding protocols for various shifts and hourly workloads.
  - Further exploration of challenges to effective rounding practices.
  - Use of NPPRS in more diverse practice settings.
CONCLUSIONS:

- Challenges to the practice of patient rounding remain. Evidence was provided supporting the positive impact of strong leadership in sustaining nurses’ practice of rounding.

- Additional investigations provide further psychometric support for the use of the NPPRS with similar descriptive statistics and reliability coefficients obtained.
ADOPTION OF THE NPPRS

• Publications/presentations yielded national interest from:
  • Nurse leaders evaluating their important role.
  • Nurses determining best rounding protocols.
  • Doctoral students implementing EBP projects and conducting research investigations examining factors related to optimal rounding and efficacy of nurse designed interventions.
  • Example: Examination of the impact of hourly rounding on Always Events.
INTERNATIONAL INVESTIGATIONS USING THE NPPRS ©(Neville, 2010)

Patient Rounding

- United States
- Korea
- Sweden
- Australia
- Scotland
- China
- Turkey
- China
- Scotland
- Australia
- Scotland
- United States

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