One Conversation Led to Another:
A journey of discovery about discharge readiness

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Marquette University College of Nursing
Compelling clinical questions

What nurses do (independently or in interprofessional teams) to make a difference in:

- Patient experience of care
- Health Outcomes
- Cost of care
My own compelling question

- Do hospital based nurses have an impact on patient outcomes after hospital discharge?
Searching for the compelling clinical question
The forest: At the beginning

- Managed care – LOS and adverse outcomes of short stay
The forest: Now

- Affordable care
  - Care transitions
  - Readmission avoidance
My tree

- Readiness for Discharge
Patients are discharged from the hospital in an intermediate rather than later stage of recovery.

(Korttila, 1991)
Why study readiness for discharge - now?

- More than 35 million discharges annually from acute care hospitals.

- 65% are discharged to home

- Readmission rates range from 8 to 15% in the 1st 30 days after discharge; 20% for age 65+

- Opportunities for process and outcome improvements

- Readmissions are costly
Readiness for Hospital Discharge

- An everyday practice concept
- An infrequently measured concept
- A journey of discovery
  - The concept
  - Its predictors and outcomes
Implementation as a Standard of Nursing Practice

Health Team Communication about Discharge

Patient    Nurse    Physician
Predictors  Outcomes  Staffing  Cost-Benefit
Quality of teaching  Scales  Post-discharge
New mothers  Adult med-surg  Parents/children

Discharge readiness
Where to start:
Early Conversations about OB Discharge:

- What are the predictors and outcomes of early OB discharge in our patient population?
  - Who is going home early?
  - Are they ready to go home?
  - What problems are associated with early OB discharge
Our first study

- Socio-demographics
- Readiness for discharge
- Maternal-Neonatal Problems
- Maternal-Neonatal Utilization

LOS
Who were likely to go home early?

- Younger, non-white, lower SES, multiparas, not living with FOB, Medicaid
- Mothers with lower self-reported readiness went home earlier.

**Conclusion:** Mother’s perception of readiness was not a factor influencing discharge decisions.
Reframing the conversation

- Socio-demographics
- Maternal-Neonatal Problems
- Maternal-Neonatal Utilization

Readiness for discharge
Reframing the conversation

Parity +
Marital Status +
Education -
Black +

Readiness for discharge

Maternal physical problems
Maternal psychosocial problems

- Unscheduled maternal pp visits
- Calls to OB and ped providers
Length of Stay after Vaginal Birth:
Discharge Factors and Readiness

STUDY BACKGROUND

The present study was designed to examine the relationship between sociodemographic characteristics, obstetric factors, and readiness for discharge of women who had vaginal births in a hospital setting. The study aimed to identify factors that influence the length of stay and readiness for discharge, with the ultimate goal of optimizing patient care and hospital resources.

Study Design

A retrospective chart review of women who delivered vaginally in a hospital setting over a 6-month period was conducted. Data were collected on sociodemographic characteristics, obstetric outcomes, and discharge readiness. The primary outcome measure was the length of hospital stay, and the secondary outcome was readiness for discharge, assessed using a validated scale.

RESULTS

The study found that older age, nulliparity, and a longer duration of labor were associated with a longer length of stay. However, factors such as educational attainment and income level did not significantly impact the length of stay. Additionally, women who reported higher levels of social support and had more favorable attitudes towards discharge were more likely to be ready for discharge.

DISCUSSION

The results suggest that targeted interventions could be developed to improve readiness for discharge among vulnerable populations. Further research is needed to validate these findings and explore additional factors that may influence discharge readiness.

CONCLUSION

This study highlights the importance of considering sociodemographic factors and social support in the context of discharge readiness. Hospital policies and protocols should be developed to support women in their transition from hospital to home, ensuring a smooth and safe recovery.

Keywords: Vaginal Birth, Length of Stay, Readiness for Discharge, Sociodemographic Factors.
New compelling questions:

- Does nursing care make a difference in patient readiness for discharge after birth?

  Is discharge readiness associated with subsequent post-discharge outcomes?

- How should we measure discharge readiness going forward?
Framing Discharge Readiness Research

Hospital  →  Home

Discharge Transition

Nursing Processes  →  Patient Outcome
And one conversation led to another……

- Postpartum Mothers
- Adult Med-Surg
- Parents of Hospitalized Children
GOING HOME: Predictors and outcomes of readiness for hospital discharge

- Postpartum Mothers
- Adult Medical-Surgical Patients
- Parents of Hospitalized Children
Study Model

Hospitalization

Patient Characteristics

Discharge

Readiness for Hospital Discharge

- Nursing Practices: Discharge Teaching
- Care Coordination

Post-Discharge

Coping (difficulty)

Use of post-discharge support and services
Developing tools to study the discharge transition

- Readiness for Hospital Discharge
- Quality of Discharge Teaching Scale
- Care Coordination
- Post-Discharge Coping Difficulty
What we know about readiness for discharge

- **Dimensions**
  - Physical stability
  - Functional ability
  - Ability, preparation, competence to manage self-care at home
  - Psychosocial factors (coping)
  - Education and information about what to expect
  - Availability of social support
  - Access to healthcare system and community resources

- **Who’s perspective?**
How do we know patients are ready for discharge?

- **Physician**
  - Clinical criteria
  - Medical necessity for continuation of hospitalization

- **Nurse**
  - Discharge preparation – knowledge and skills

- **Patient**
  - Readiness for self management

- **Family**
  - Family readiness to assume care responsibility
Dimensions of Patient’s Perception of Readiness for Hospital Discharge

- Physical stability and functional ability
- Preparation and competence in self-care
- Perceived coping ability
- Availability of social support and access to health system and community resources
## RHDS Items

<table>
<thead>
<tr>
<th>Personal Status</th>
<th>Knowledge:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physically ready</td>
<td>Caring for yourself</td>
</tr>
<tr>
<td>Energy</td>
<td>Personal needs</td>
</tr>
<tr>
<td>Emotionally ready</td>
<td>Medical needs</td>
</tr>
<tr>
<td>Physically able</td>
<td>Restrictions</td>
</tr>
<tr>
<td></td>
<td>Problems to watch for</td>
</tr>
<tr>
<td></td>
<td>Who and when to call</td>
</tr>
<tr>
<td></td>
<td>What happens next</td>
</tr>
<tr>
<td></td>
<td>Community info and services</td>
</tr>
</tbody>
</table>

### Perceived Coping Ability

<table>
<thead>
<tr>
<th>Expected Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handle demands at home</td>
</tr>
<tr>
<td>Perform personal care</td>
</tr>
<tr>
<td>Perform medical care</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Emotional support</td>
</tr>
<tr>
<td>Help with personal care</td>
</tr>
<tr>
<td>Help with household activities</td>
</tr>
<tr>
<td>Help with medical care</td>
</tr>
</tbody>
</table>
Quality of Discharge Teaching:
A nursing process measure

- Content amount
- Content delivery
Content needed/received

- Personal care expectations and needs for self and child
- Medical care needs
- Practice with care/treatments skills
- Who and when to call for problems or concerns
- Emotions and emotional adjustment
- Family received information on mother/child care
Skill in delivering patient education

- Answer specific questions and concerns
- Listen to concerns
- Sensitive to personal beliefs and values
- “The way” the nurse presents information
- Info provided in a way patient can understand
- Check to make sure patient understands
- Provide consistent information
- Provide at times that are good for patient
- Provide at times good for family members
- Promote confidence in ability to care for self
- Promote confidence in knowing what to do in emergency
- Decrease anxiety about going home
# Sample

<table>
<thead>
<tr>
<th></th>
<th>Enrolled</th>
<th>Complete Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postpartum</td>
<td>141</td>
<td>118 (84%)</td>
</tr>
<tr>
<td>Adult</td>
<td>147</td>
<td>120 (82%)</td>
</tr>
<tr>
<td>Parents</td>
<td>135</td>
<td>113 (84%)</td>
</tr>
<tr>
<td>Total</td>
<td>432</td>
<td>351 (83%)</td>
</tr>
</tbody>
</table>
Findings

- The trajectory of influence
  Discharge teaching → readiness for discharge → post-discharge coping → utilization

- Quality of DC teaching explains 1/3 of variance in readiness for discharge
  - ‘Delivery’ of teaching had a much stronger association with discharge readiness than ‘content’

- Adult med-surg patient:
  - readiness → readmission
Perceived Readiness for Hospital Discharge in Adult Medical-Surgical Patients

Marianne E. Weiss, DNSc, RN; Linda B. Piacentine, RN, MS, ACNP; Lina Arana, MS, RN, ACNP; Lisa Loken, MSN, RN, RNC; Janice Ancona, MSN, RN; Joanne Archer, MSN, APNP, BC-ADM; Susan Gresser, APRN, BC, APNP, SUE BAIRD HOLMES, MS, RN, OCN; Sally Toman, MSN, RN, CWOCN, CNS; Anne Toy, MS, BSN; Teri Vega-Stromberg, MSN, RN, ACHPN, ADN.

Purpose: The purpose of the study was to assess the psychometric properties of a 23-item instrument, the Psychometric Properties of the Readiness for Hospital Discharge Scale (PHDS), in a sample of adult medical-surgical patients. The study aimed to evaluate the reliability and validity of the instrument.

Readiness for Discharge in Parents of Hospitalized Children

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Norah Louise Johnson, MSN, PhD(c), RN, CPNP
Shelly Malin, PhD, RN
Teresa Jerojk, BSN, RN
Cecilia Lang, MSN, CPNP
Eileen Sherburne, MSN, APRN, FNP

Predictors and Outcomes of Postpartum Mothers’ Perceptions of Readiness for Discharge after Birth

Marie E. Weiss and Lisa Loken

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Marianne E. Weiss, RN, DNSc, Marquette University College of Nursing

ABSTRACT

Parental preparation for a child’s discharge from the hospital sets the stage for a successful postdischarge experience. The study examined the relationship between parental perceptions of readiness for discharge and the outcomes of discharge. The results indicated that parental readiness was positively associated with discharge satisfaction and decreased readmission rates. Further research is needed to develop interventions to enhance parental readiness and improve discharge outcomes.

JOGNN: JOURNAL OF OBSTETRICAL, GYNECOLOGICAL, AND NEONATAL NURSING
Next....
And one conversation led to another......

Readiness for Discharge

Costs

Unit –level Nurse Staffing
A quality and cost analysis of nurse practice predictors of readiness for hospital discharge and post-discharge outcomes

Funded by: Robert Wood Johnson Foundation
Interdisciplinary Nursing Quality Research Initiative
Conceptual Model

Structure
- Nurse Staffing

Process
- Discharge Preparation

Outcomes
- Readiness for Discharge
- ED Visits and Readmissions
New Contributions

- Moved staffing outcomes research to the unit level from hospital aggregate level

- Path modeling of structure (staffing), nursing process (DC teaching) and Outcomes (Readiness and readmission)

- Longitudinal analysis: hospital to home

- Post-discharge measures of nursing outcome (Readmission and ED use 30 d post-discharge)
Sampling

- 16 nursing units at 4 hospitals within a single health care system
- Goal = 110 per unit =1760 (Actual = 1892)
- Criteria
  - Adult 18+
  - Discharged home or to assisted living
  - No home hospice
  - English or Spanish speaking
## Results: Staffing and QDTS

<table>
<thead>
<tr>
<th></th>
<th>QDTS 'Delivery'</th>
<th></th>
<th></th>
<th>QDTS 'Content Received'</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>95% CI</td>
<td>P&gt;</td>
<td>z</td>
<td></td>
</tr>
<tr>
<td>RHDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QDTS Delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QDTS Received</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RNHPPD</td>
<td>0.27*</td>
<td>0.13</td>
<td>0.01</td>
<td>0.53</td>
<td>0.04</td>
<td>-0.05</td>
</tr>
<tr>
<td>non-RNHPPD</td>
<td>0.04</td>
<td>0.08</td>
<td>-0.12</td>
<td>0.20</td>
<td>0.60</td>
<td>-0.03</td>
</tr>
<tr>
<td>RNOT</td>
<td>-0.16</td>
<td>0.09</td>
<td>-0.34</td>
<td>0.01</td>
<td>0.07</td>
<td>-0.17</td>
</tr>
<tr>
<td>non-RNOT</td>
<td>-0.03</td>
<td>0.09</td>
<td>-0.20</td>
<td>0.14</td>
<td>0.76</td>
<td>0.10</td>
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</table>
Results: Staffing, QDTs and RHDS

<table>
<thead>
<tr>
<th></th>
<th>RHDS</th>
<th></th>
<th>95% CI</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>Lower</td>
<td>Upper</td>
</tr>
<tr>
<td>RHDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QDTs Delivery</td>
<td>0.35***</td>
<td>0.02</td>
<td>0.30</td>
<td>0.40</td>
</tr>
<tr>
<td>QDTs Received</td>
<td>0.07***</td>
<td>0.02</td>
<td>0.03</td>
<td>0.11</td>
</tr>
<tr>
<td>RNHPPD</td>
<td>-0.08</td>
<td>0.08</td>
<td>-0.24</td>
<td>0.09</td>
</tr>
<tr>
<td>non-RNHPPD</td>
<td>0.05</td>
<td>0.05</td>
<td>-0.05</td>
<td>0.15</td>
</tr>
<tr>
<td>RNOT</td>
<td>0.00</td>
<td>0.05</td>
<td>-0.10</td>
<td>0.11</td>
</tr>
<tr>
<td>non-RNOT</td>
<td>-0.06</td>
<td>0.05</td>
<td>-0.17</td>
<td>0.04</td>
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</tbody>
</table>
## Results: Staffing, QDTS, RHDS and Post-Discharge Utilization

<table>
<thead>
<tr>
<th></th>
<th>Emergency Department</th>
<th></th>
<th>Readmission</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OR</td>
<td>SE</td>
<td>95% CI Lower</td>
</tr>
<tr>
<td>RHDS</td>
<td>0.76</td>
<td>0.11</td>
<td>0.57</td>
</tr>
<tr>
<td>QDTS Delivery</td>
<td>1.11</td>
<td>0.13</td>
<td>0.88</td>
</tr>
<tr>
<td>QDTS Received</td>
<td>0.99</td>
<td>0.08</td>
<td>0.84</td>
</tr>
<tr>
<td>RN non-overtime #</td>
<td>1.73</td>
<td>0.74</td>
<td>0.75</td>
</tr>
<tr>
<td>non-RN non-overtime #</td>
<td>1.20</td>
<td>0.41</td>
<td>0.61</td>
</tr>
<tr>
<td>RN overtime #</td>
<td>1.70</td>
<td>0.44</td>
<td>1.02</td>
</tr>
<tr>
<td>non-RN overtime #</td>
<td>0.78</td>
<td>0.21</td>
<td>0.46</td>
</tr>
<tr>
<td>Pseudo R-squared</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
Our study results

Staffing \((↑ RN hrs, ↓ RN overtime hrs,)\)

Structure

↑ Quality of Discharge Teaching

Process

↑ Readiness for Hospital Discharge

Outcome

↓ Readmissions & ↓ ED visits

Outcome
THE BOTTOM LINE
Cost Analysis: Unplanned/related readmissions & ED

Hospital ‘Costs’
per hospitalized patient

- RN staffing
  .75 HPPD =
  $145.74
- Loss of revenue from readmission
  $52.18

Payer Savings
per hospitalized patient

- Readmission
  $607.51
THE BOTTOM LINE

Net savings

Hospital ‘Costs’

\[ \uparrow \text{RN staffing} \]

Loss of revenue from readmission

Payer Savings

\[ \downarrow \text{Readmission} \]

$409.59 (per pt.)

Reinvestment
THE BOTTOM LINE

Net savings

Hospital ‘Costs’

↑ RN staffing

Loss of revenue from readmission

Payer Savings

↓ Readmission

$11.6M (for 16 m-s units)

Reinvestment
Important Conclusions

1. Linked unit level nurse staffing to patient outcomes beyond discharge

2. Proposed significant return on investment from increased nurse staffing in emerging payment models

3. Established the trajectory of influence from staffing through quality of discharge teaching and readiness for discharge to post-discharge utilization

4. Recommendation: Implement discharge teaching evaluation and discharge readiness as standard nursing practices.
And one conversation led to another…

*Who Knows Best?*
Nurse and Patient Perceptions of Discharge Readiness as Predictors of Post-Discharge Utilization
Study within a study

- 162 adult med-surg patients and their discharging
- Association of PT-RHDS to RN-RHDS
- PT-RHDS and RN-RHDS as predictors of post-discharge utilization (Readmission + ED within 30 d.)
Association and Agreement

- Correlations between PT-RHDS & RN-RHDS
  - 0.15 (p=.06) for total scale
  - 0.12 to 0.32 for subscales
Logistic Regression: PT-RHDS and RN-RHDS as predictors of readmission/ED visits

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE B</th>
<th>P</th>
<th>Odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RHDS (Patient)</td>
<td>-0.15</td>
<td>0.21</td>
<td>0.47</td>
<td>0.86</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td></td>
<td></td>
<td>0.08</td>
</tr>
<tr>
<td><strong>Model 2:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RNRHDS (Nurse)</td>
<td>-0.53*</td>
<td>0.25</td>
<td>0.03</td>
<td>0.59</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td></td>
<td></td>
<td>0.11</td>
</tr>
<tr>
<td><strong>Model 3:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RHDS (Patient)</td>
<td>-0.09</td>
<td>0.24</td>
<td>0.70</td>
<td>0.91</td>
</tr>
<tr>
<td>RNRHDS (Nurse)</td>
<td>-0.51*</td>
<td>0.26</td>
<td>0.05</td>
<td>0.60</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td></td>
<td></td>
<td>0.11</td>
</tr>
</tbody>
</table>

% Readmission/ED Visit  0.16

Note: The errors are corrected for clustering at the unit level. The models include unit level and hospital level fixed effects (not reported in the table).
*p < .05. **p < .01. ***p < .001.
RNRHDS:
Sensitivity, Specificity, PPV, NPV
What we learned

- Nurses rate patient readiness for discharge higher than patients.
- Readiness for discharge assessed by nurses is more predictive of readmission/ED than patient self-assessment.
- Positive predictive values suggest RNRHDS could be useful as a screening tool for patients at risk for adverse post-discharge occurrences.
Quality and Adverse Events

Quality and Cost Analysis of Nurse Staffing, Discharge Preparation, and Postdischarge Utilization

Marianne E. Weiss, Olga Yakusheva, and Kathleen L. Bobay

Objectives. To determine the impact of unit-level nurse staffing on quality of discharge teaching, patient perception of discharge readiness, and postdischarge readmission and emergency department (ED) visits, and cost-benefit of adjustments to unit nurse staffing.

Data Sources. Patient questionnaires, electronic medical records, and administrative data for 1,892 medical-surgical patients from 16 nursing units within four acute care hospitals between January and July 2008.

Design. Nested panel data with hospital and unit-level fixed effects and patient and unit-level control variables.

Data Collection/Extraction. Registered nurse (RN) staffing was recorded monthly in hours-per-patient-day. Patient questionnaires were completed before discharge. Thirty-day readmission and ED use with reimbursement data were obtained by cross-referencing medical record data with insurance claims.

Higher RN nonovertime staffing increased odds of readmission (OR = 1.70; RN staffing increased odds of ED visit (OR = 1.85).
One conversation led to another….

We can’t use this if you don’t shorten the scale!!

RNs  Researchers  Administrators
# RHDS Scale Statistics

<table>
<thead>
<tr>
<th>Scale</th>
<th>Max score</th>
<th>Mean</th>
<th>SD</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT-RHDS/SF</td>
<td>80</td>
<td>67.6</td>
<td>10.9</td>
<td>.80</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(item mean=8.5/10)</td>
</tr>
<tr>
<td>RN-RHDS/SF</td>
<td>80</td>
<td>67.7</td>
<td>9.6</td>
<td>.81</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(item mean=8.5/10)</td>
</tr>
</tbody>
</table>
Association and Agreement

- Correlations between RHDS & RNRHDS
  - 0.32 (p<.01)

- Agreement using cutoff score of <7 item mean
  - Agree ready: 76.0%
  - Agree not ready: 3.5%
  - Disagree- patient ready, nurse not ready: 9.1%
  - Disagree- patient not ready, nurse ready: 11.4%
Logistic Regression: PT-RHDS and RN-RHDS as predictors of readmission/ED visits

<table>
<thead>
<tr>
<th></th>
<th>Readmission Odds ratio (p value)</th>
<th>ED Visit Odds ratio (p value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT-RHDS/SF</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>RN-RHDS/SF</td>
<td>.53  (p=.02)</td>
<td>NS</td>
</tr>
</tbody>
</table>

Model includes controls for patient characteristics, diagnosis, unit, LOS, discharge coordination, home health, meds at discharge

**Interpretation:** A 1 point decrease in the RN-RHDS item mean score increases the likelihood of readmission by 47%.
Cut off score for low readiness

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Unadjusted Models</th>
<th></th>
<th>Adjusted Models</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ED</td>
<td>R</td>
<td>ED</td>
</tr>
<tr>
<td>RN-RHDS/SF categories</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(8 - 8.9)</td>
<td>0.691</td>
<td>2.118</td>
<td>0.925</td>
</tr>
<tr>
<td></td>
<td>(0.654)</td>
<td>(0.364)</td>
<td>(0.920)</td>
</tr>
<tr>
<td>(7 - 7.9)</td>
<td>1.044</td>
<td>1.398</td>
<td>2.162</td>
</tr>
<tr>
<td></td>
<td>(0.960)</td>
<td>(0.645)</td>
<td>(0.337)</td>
</tr>
<tr>
<td>(&lt; 7)</td>
<td>0.137*</td>
<td>6.293**</td>
<td>0.092</td>
</tr>
<tr>
<td></td>
<td>(0.081)</td>
<td>(0.030)</td>
<td>(0.271)</td>
</tr>
<tr>
<td>Patient controls &amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of stay (days)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.212*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.092)</td>
</tr>
<tr>
<td>4+ Discharge meds*</td>
<td></td>
<td></td>
<td>5.408**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.010)</td>
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</table>

P value in parentheses, *** p<0.01, ** p<0.05, * p<0.1.
Validation of Patient and Nurse Short Forms of the Readiness for Hospital Discharge Scale and Their Relationship to Return to the Hospital

Marianne E. Weiss, Linda L. Costa, Olga Yakusheva, and Kathleen L. Bobay

Objective. To validate patient and nurse short forms for discharge readiness assessment and their associations with 30-day readmissions and emergency department (ED) visits.

Data Sources/Study Setting. A total of 254 adult medical-surgical patients and their discharging nurses from an Eastern US tertiary hospital between May and November, 2011.

Study Design. Prospective longitudinal design, multinomial logistic regression analysis.

Data Collection/Extraction Methods. Nurses and patients independently completed an eight-item Readiness for Hospital Discharge Scale on the day of discharge. Patient characteristics, readmissions, and ED visits were electronically abstracted.

Principal Findings. Nurse assessment of low discharge readiness was associated with a six- to nine-fold increase in readmission risk. Patient self-assessment was not associated with readmission; neither was associated with ED visits.

Conclusions. Nurse discharge readiness assessment should be added to existing strategies for identifying readmission risk.

Key Words. Discharge readiness, readmissions, emergency visits
Implementation as a Standard of Nursing Practice

Health Team Communication about Discharge

Patient  Nurse  Physician

Predictors  Outcomes  Staffing  Cost-Benefit

Quality of teaching  Scales  Post-discharge

New mothers  Adult med-surg  Parents/children

Discharge readiness
Our ongoing studies

- **CARS: Communicating about Readiness** (Opper and Weiss, Co-PIs)

- **Family Self-Management Discharge Preparation Intervention.** (RHDS – parent) (Weiss and Sawin, Co-Pis)

- **Cross – validation of long and short forms of RN- RHDS** (CGEAN: Bobay PI)

- **READI Study: Implementation of Discharge Readiness Assessment as a Standard Nursing Practice for Hospital Discharge** (Weiss, PI)
CAR STUDY

Communication About Readiness for Discharge
The CAR Team

- Kristi Opper, MSN, RN,
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- David Huebner, BSN,RN
- Andrea Melenchuk, BSN, RN, CMSRN
- Dan Gamache, BSN, RN
- Nicole Ladwig, BSN, RN, CMSRN
- Kristi Copeland, BSN,RN,CMSRN
- Katie Kiolbasa, BSN, RN, CCRN
- Jessica Schaeffer, ADN, RN
- Pamela Scherff, MSN, RN, NE-BC
CAR Study Design

- **Baseline assessments**: RHDS-PT, RN, MD; patterns of discharge communication; RN-MD collaboration

- **Intervention**: TeamSTEPPS approach to improving Health Communication

- **Outcome assessment**: RHDS- PT, RN. MD; patterns of discharge communication; RN-MD collaboration
Preliminary Results:

- Correlation among Patient, RN and MD regarding discharge readiness

<table>
<thead>
<tr>
<th></th>
<th>RN</th>
<th>MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>.13</td>
<td>.14</td>
</tr>
<tr>
<td>RN</td>
<td></td>
<td>.10</td>
</tr>
</tbody>
</table>

- Score of <7 out of 10 = Not ready
  - Patients: 17%  RNs: 23%  MDs: 13%

- Agreement between Patients, RNs, and MDs

<table>
<thead>
<tr>
<th></th>
<th>PT-RN</th>
<th>PT-MD</th>
<th>RN-MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree- not ready</td>
<td>6.1%</td>
<td>3.1%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Disagree</td>
<td>28.3%</td>
<td>24.0%</td>
<td>26.7%</td>
</tr>
<tr>
<td>Agree-ready</td>
<td>65.7%</td>
<td>73.0%</td>
<td>68.2%</td>
</tr>
</tbody>
</table>
READI

Readiness Evaluation And Discharge Intervention:

Implementation as a Standard Practice for Hospital Discharge

Funding: American Nurse Credentialing Center
READI: Significance

- From observation to intervention
- Determine the contribution of nurse assessment of discharge readiness to readmission
- Translation of evidence into practice protocol.
Approach: The READI Study

- Investigates 3 protocols of discharge readiness assessment
  - RHDS by the nurse
  - RHDS by the nurse, informed by patient perspective
  - RHDS by the nurse + informed by patient with requisite to act on low readiness scores

- Outcome variables: Readmission / ED visits
# Approach: Design

<table>
<thead>
<tr>
<th>Study Units</th>
<th>Steps</th>
<th>Baseline</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation</td>
<td>Baseline</td>
<td>RN-RHDS</td>
<td>RN-RHDS</td>
<td>RN-RHDS</td>
<td>RN-RHDS</td>
</tr>
<tr>
<td>Control</td>
<td>Concurrent control</td>
<td>Concurrent control</td>
<td>Concurrent control</td>
<td>Concurrent control</td>
<td>Concurrent control</td>
</tr>
</tbody>
</table>

- **Steps**: 4 months
- **Baseline**: RN-RHDS
- **Step 1**: RN-RHDS + PT-RHDS
- **Step 2**: RN-RHDS + PT-RHDS + NIAF
- **Step 3**: RN-RHDS + PT-RHDS + NIAF

*MARQUETTE UNIVERSITY*

*Be The Difference.*
Sample and Timeline

- 35 Magnet Hospitals
- Begins July 1, 2014
Our Lessons Learned about Building a Program of Clinical Research

- Plant a tree
- Talk
- Listen
- Collaborate - build a team
Researching Nursing Practice

‘where the organization meets the patient’