Proactive RN Behavior – A Determinant in Improving Patient Safety

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Background and Significance

Patient Safety

- The IOM report, “Crossing the Quality Chasm”, suggests that the attributes that contribute to safety cultures in High Reliability Organizations (HROs) are appropriate for adoption in Healthcare Systems.
  - Frontline employee decision making to respond and mitigate potential safety issues has been identified as one of the defining characteristics of safety cultures in HROs (Weick & Sutcliffe, 2001).

Patient Safety

- The cognitive work of nursing and its contribution to patient safety in regards to monitoring and early detection of issues in the clinical setting is undisputed (Redman, 2008).
- Significant variability has been demonstrated in how nurses respond to time-sensitive safety situations and what is unknown are the variables influence an RN to take action in those situations (Thompson).

Responding to Potential Safety Situations

- In one of her classic publications, Benner describes decisions faced by nurses and states that nurses manage rapidly changing patient situations when physicians are not present or readily available by weighing different options based on their assessment of the situation, “but this skill area is not formally acknowledged or well studied”

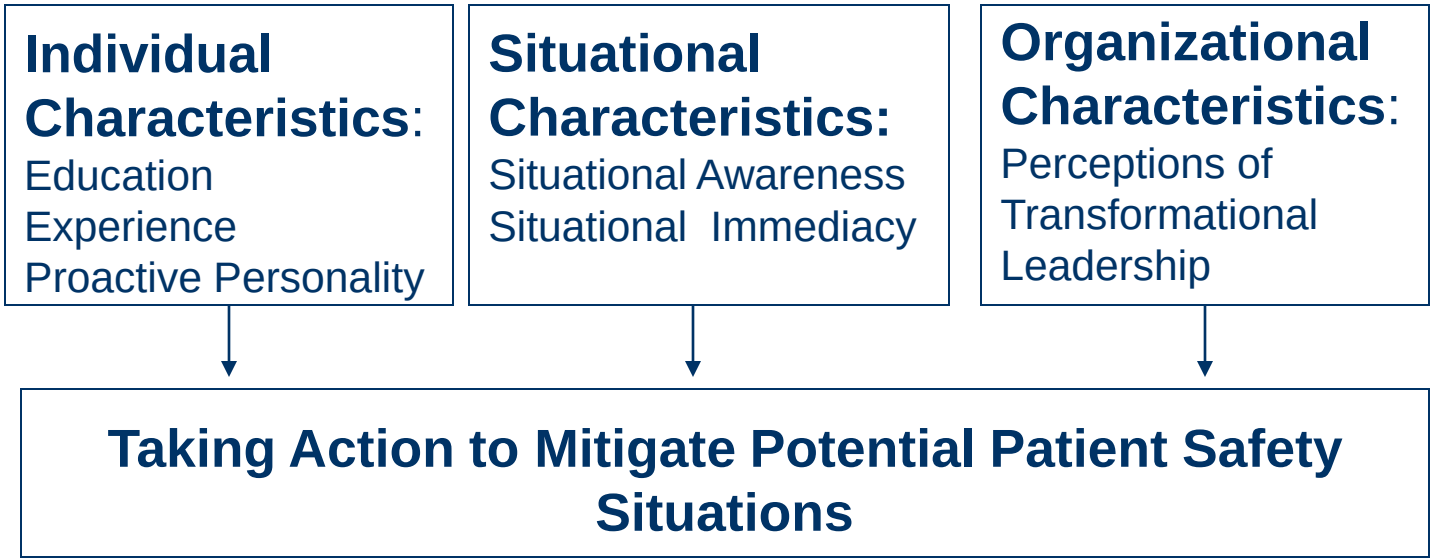
(Benner et al., 1999, p. 168).

Statement of Purpose

- The purpose of this inquiry was to examine the determinants that influence a RN to take action within their scope of practice in situations that pose an imminent safety risk for patients.

Conceptual Framework

Research Model: Responding to Patient Safety Situations



Conceptual Definitions: Individual Characteristics

- Education
  - *Level of training* received in preparation to assume particular job roles (Thompson, 1967)
- Experience
  - *Amount of time* an employee has spent in a particular employment field (Thompson, 1967)
- Proactive Personality
  - An individual's predisposition for increased *tolerance for risk* and *initiative oriented behavior* (Bateman & Crant, 1993)

Conceptual Definition: Situational Characteristics

- Situational Awareness
  - Perception of the *context* in which details of the situation differ from expectations and the way in which these details affect the "big picture" (Weick, 2010).
- Situational Immediacy
  - Perception that an *action is needed imminently* in order to avoid an untoward consequence (Roberts, 1990).

Conceptual Definition: Organizational Characteristics

- Perceptions of Transformational Leadership
  - Leadership support characterized by *shared decision making, mutual goal setting and employee empowerment* (Bass & Avolio, 1994).

Conceptual Definition: Taking Action to Mitigate Potential Patient Safety Situations

- The *power to act* according to one's own judgment or choice when an action is needed in response to an evolving situation
  - considered vital to the practice of professionals who encounter stressful circumstances that require effective and timely responses (Buckholtz, Amason, & Rutherford, 1999).

Research Methods

Research Methods

- Design: cross-sectional correlational
- Sample & setting: participants were recruited from the VCU Health System using a population of nurses who had been employed on the same medical-surgical patient care unit for the period of at least 1 year
  - Power Analysis = sample size of 91 for medium effect size

Research Methods (cont.)

- Data Sources: Data for this study were obtained using an electronic questionnaire survey tool (Redcap)
  - **Population of nurses eligible to participate in the study were notified by electronic email that they may receive an invitation to participate in the study. Advertisements were also placed on the nursing units. Nurses selected to participate in the study were notified by electronic email. The initial screen of the questionnaire contained all elements of informed consent and the nurse acknowledged confidentially that he/she agreed to participate. Reminder emails to complete the study were sent 2 weeks after the initial email notification.**

Research Methods (cont.)

- Discretionary Decision Making
  - Three Clinical Vignettes were used to measure the dependent variable. The vignettes were developed using the expertise of two clinical nurse specialists at VCUHS. The vignettes were pilot tested with RNs who would not be eligible for the larger study. The vignettes represented situations that the RNs may encounter in their practice in which a patient is at risk for a patient safety event unless an intervention is initiated. There were three options for the RN could select any of the options. If the RN selected any one of the options that required direct action, then they were classified as a “RN who would take action to mitigate a potential patient safety issue.

Research Methods (cont.)

- Measurement of variables:
  - Education and Experience
    - Investigator developed demographics questionnaire
  - Proactive Personality
    - Proactive Personality Scale (Bateman & Crant, 1993).
  - Situational awareness
    - Visual Analogue Scale
  - Situational Immediacy
    - Control Variable—all situations depicted in the vignettes required immediate intervention
  - Perceptions of Transformational Leadership
    - Multifactor Leadership Questionnaire (Bass & Avolio, 1994).

Research Methods

- Data Analysis:
  - Descriptive statistics to describe the sample and characterize the model variables
  - Instrument Reliability (Cronbach's alpha)
  - Logistic Regression

Findings

Findings: *Response rate*

- 503 RNs met the inclusion criteria and were invited to participate in the study
- A total of 136 participants responded to the electronic survey
- Of the returned questionnaires, 15 were excluded because of missing data
- Final sample size was 111
- Seventy-three participants indicated they would take action to mitigate a potential safety event (65.8%)

Findings: *Sample demographics*

- Education:
  - BSN preparation = 75%
  - Non-BSN = 25%
- Years of experience:
  - 1 – 2 years = 12%
  - 3 – 5 years = 18%
  - 6 – 10 years = 14%
  - 11 – 19 years = 32%
  - > 19 years = 24%

Findings: *Instrument Reliability*

- Alpha Coefficient for *Proactive Personality Scale* = 0.92
- Alpha Coefficient for Mulitfactor Leadership Questionnaire = 0.95

Test of Significance

- The final research model was significant at the 95% confidence level $p = 0.050$

Pseudo R^2 statistic

- Cox and Snell = 0.723

Odds Ratio

- Proactive Personality
  - OR=1.91

Summary of Findings

- High prevalence of respondents who would take action to mitigate a potential patient safety issue
- Significant research model at the 95% confidence level
- Only one predictor variable – proactive RN behavior
- Total predictive power of the final model was very high
- This measure of proactive behavior is not simply a personality trait but a characteristic that can be cultivated in the work environment by developing competency, communication and co-worker trust.

Discussion of Findings

Antecedents of Proactive Behavior

- Personality Predisposition
- Job Autonomy
- Co-Worker Trust
- Supportive Supervision

Developing Proactive Work Behaviors

- Transitioning Care at the Bedside (TCAB) (job autonomy)
- Don’t always provide solutions, provide opportunities for self-thought by simply listening and asking questions (job autonomy)
- Focus on team and benefits to team as a whole (co-worker trust)
- Develop transparent peer review processes (co-worker trust)

Be Creative

- Forward all emails and communication about positive interactions with your staff to the whole team (co-worker trust)
- Allow for time in your staff meetings to mitigate gossip, alibies and rumors (co-worker trust)
- Being questioned is not the same thing as being challenged (supportive supervision)
- Celebrate all accomplishments (supportive supervision).

Stay Creative

- Allow for failure, celebrate it, learn from it and use it in your interaction with staff. Staff don't fail without being proactive.
- Understand that accountability with about ability or motivation. First assess their ability, then their motivation. Everyone is motivated differently.