Senior Nursing Students’ Perceptions of Patient Safety

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Problem Statement

• Patient safety is the most publicized issue facing the U.S. Healthcare system.
• Nurses are indispensable in providing safe patient care
• Nursing education must be focused on patient safety competencies
• Improvements in nursing education are critical to ensure safe patient care
Background & Significance

- History of Patient Safety
- Patient Safety Culture
- Quality & Safety in Nursing Education (2007)
The purpose of this investigation is to examine the perceptions of senior baccalaureate nursing students about their attitudes, skills and knowledge regarding patient safety.
Research Questions

• Q1-What are the perceptions of senior nursing students of their attitudes, skills and knowledge regarding patient safety?

• Q2-What is the relationship between demographic factors and students’ attitudes, skills and knowledge about patient safety?

• Q3-What is the effect of demographic factors on students’ perception of attitudes, skills and knowledge?
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Safety in Medical Education
- Madigosky et al. (2006)
- Varkey et al. (2009)

Safety in Nursing Education
- Smith et al. (2007)
- Cronenwett et al. (2007)
- Schnall et al. (2008)
- Dycus & McKeon (2009)
- Sullivan et al. (2009)
Theoretical/Conceptual Framework


Concrete experience
Reflective observation
Abstract Conceptualization
Active experimentation
• Convenience sample
• Senior baccalaureate nursing students
• In final semester of program
• 4 private colleges in Massachusetts
METHODOLOGY

• Quantitative non-experimental, descriptive design
• Patient Safety Attitudes, Skills and Knowledge Scale (PS-ASK) Schnall et al., 2008
  – 26 item, 5 point Likert scale
  – Content validity was established with a panel of content experts
  – PCA to determine validity of subscales
PS-ASK Instrument

- Attitudes
  - Error detection
  - Time Investment
  - Creating a culture of safety

- Skills
  - Error Analysis
  - Decision support/Technology
  - Threats to Patient safety

- Knowledge
Demographic Data

- Age
- Gender
- Race
- Graduation month
- Experience working in health care outside of clinical courses
- Years in clinical courses
- Adequacy of nursing program in providing patient safety education
Data Collection

• Faculty coordinating the senior course were asked to facilitate email distribution
  – Email SurveyMonkey link
  – Letter explaining the study

• January through March 2010
Demographic findings

N = 61

- 100% female
- Ethnicity
  - White 57 (93.4%)
  - Black 1 (1.6%)
  - Other 3 (5.0%)
- Age
  - 20-23 = 52 (85.2%)
  - 24-30 = 6 (9.8%)
  - 31-36 = 3 (5.0%)
Health care experience exclusive of nursing program

- 0 years - 17 (27.9%)
- 1-2 years - 27 (44.3%)
- 3-4 years - 10 (16.4%)
- 5-6 years - 7 (11.5%)
• Years in clinical courses
  – 1 = 5 (8.2%)
  – 2 = 21 (34.4%)
  – 3 = 20 (32.8%)
  – 4 = 13 (21.3%)
  – 5 = 2 (3.3%)
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• Graduation date
  – May 2010 100%

• How well did nursing program provide patient safety education
  • In a specific course 4 (6.6%)
  • Integrated throughout curriculum
    57 (93.4 %)
• **Q 1. Perceptions of Patient Safety Attitudes, Skills and Knowledge**

• *The first research question is directed at examining the perceptions of senior nursing students regarding their attitudes, skills, and knowledge of patient safety.*
• **Patient safety attitudes;** Error Detection, Time Investment and Creating a Culture of Safety
  – Participants in this study demonstrated a mean of 3.97 ($SD=0.29$), which suggests that participants had a positive overall attitude towards patient safety.

• **Patient safety skills;** Error Analysis, Decision Support/Technology, and Threats to Patient Safety.
  – Participants in this study demonstrated a mean of 2.64 ($SD=0.56$), which suggests that the participants perceived themselves as “somewhat competent” in providing safe patient care.

• **Patient safety knowledge.**
  – Participants in this study demonstrated a mean of 2.78 ($SD=0.38$), which suggests that the participants perceived themselves as “somewhat knowledgeable”.
Q 2. Relationship of Demographic Factors with Patient Safety Attitudes, Skills and Knowledge
   - The results indicate that health care experience outside of clinical education significantly and positively correlates with the PS-ASK mean ($r = .304; p = .02$).

Q 3. Effects of Demographic Factors on Patient Safety Attitudes, Skills, and Knowledge
   - As with the correlation analysis, regression analysis demonstrated work in a health care setting outside of the nursing program as a significant predictor of patient safety attitudes, skills, and knowledge ($p = .024$). There were no other variables that significantly predicted the dependent variable.

• **Health care experience exclusive of nursing program was the only positive predictor of patient safety attitudes, skills & knowledge**
Findings

• Homogenous sample
• Positive overall attitude towards patient safety
• Perceived as somewhat competent & somewhat knowledgeable
• Healthcare experience outside of nursing program had a positive correlation to PS-ASK mean score
Implications for Nursing Practice

- Assure that nursing professionals are prepared to provide safe patient care
- Practice needs to guide education
- Faculty need to be prepared to function in highly technological environment
Implications for Nursing Education

• Baseline for evaluating curricula and students’ perceptions of patient safety
• Need to incorporate Error analysis/Quality improvement content into curricular
• Increase/encourage students to seek additional experience in health care setting
Implications for Nursing Research

- Expand study to other settings and larger populations
- Improvements to the PS-ASK instrument, Attitudes subscale
- Begin evaluation of student ASKs - Patient Safety
- Development of a comprehensive tool for assessment and evaluation
Theoretical Implications

- Kolb’s (1984) experiential learning is supported by the results of this study in that participants’ experience in health care settings outside of the nursing program was a significant predictor of positive patient safety attitudes, skills and knowledge.
Limitations

– Small sample size
– Low response rate (29%)
– Self-reporting feature of tool
– Timing of study
– Potential researcher bias
– Lacks Generalizability
– PS-ASK instrument
Conclusion

• Timely evaluation of nursing students perceptions of ASKs
• Little evidence that nursing programs provide students with attitudes, skills and knowledge needed to practice safely
• Recent publications in Nursing Outlook supports findings (Sullivan, 2009).
• Limited research in the area
• Instrument development needed to further evaluate students’ ASKs
Next Steps

• Tool revisions
• Replicate study with Curry seniors and compare the groups
  – Study underway Spring 2011 (sophomores, juniors and seniors)
• Pre & Post evaluations