

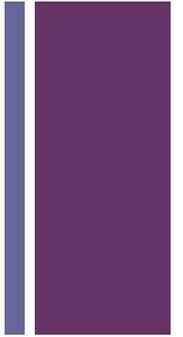


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Nursing Students' Perceptions of Patient Safety

+ Purpose of the Study

- To examine the perceptions baccalaureate nursing students have about their knowledge, skills and attitudes regarding patient safety.
- To examine the effects of QSEN strategies on students' patient safety knowledge, skills, and attitudes.



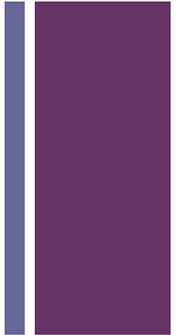
+ Problem Statement

- Maintaining patient safety is one of the most critical issues 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.
- Difficulty in “ADDING” new material to an already overloaded curriculum.





Background and Significance



- Institute of Medicine (1999, 2001, 2003)
 - History of Patient Safety
 - Patient Safety Culture
- Quality and Safety Education for Nurses (QSEN) (2007)
- Institute of Medicine *Future of Nursing* (2010)

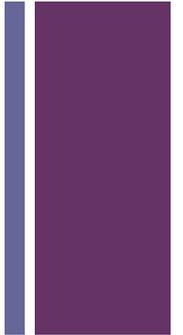
+ Literature Review

Safety in Medical Education

- Madigosky et al. (2006)
- Varkey et al. (2009)
- Van Geest & Cummins (2003)

Safety in Nursing Education

- Smith et al. (2007)
- Cronenwett et al. (2007)
- Schnall et al. (2008)
- Dycus & McKeon (2009)
- Sullivan et al. (2009)



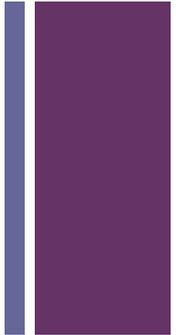
+ Relationship to QSEN – Curry College

QSEN pilot school since 2007

- One of 15 pilot schools chosen nationwide
- Initial infusion of 10 teaching strategies throughout the undergraduate curriculum

Doctoral study compared Curry with 4 private non-QSEN schools in MA

Need to evaluate success of curriculum infusion -Second year of data collection at Curry College





Curry College QSEN Strategies

1. “Level of Evidence” designations incorporated into each clinical course (class and clinical) when clinical studies are discussed (EBP).
2. Developed a modified PowerPoint presentation of *When Things Go Wrong: Responding to Adverse Events* to integrate into several nursing courses (S, QI).
3. Adopted practice partner (BIDMC) resources (e.g., adverse event flow sheets) as teaching tools in selected nursing courses (S, QI).



4. Developed resource cards for medication rights, SBAR, Rapid Response Team triggers (S).
5. Designated one clinical conference on quality improvement projects in the assigned care setting in each clinical rotation (QI).
6. Revised the Critical Objectives for Clinical Evaluation (S, PCC).
7. Developed clinical assignments to assist students in identification of potential unsafe nursing practices including “work arounds” (S).



8. With the practice partner, facilitated student participation in quality assurance projects (or committees) as part of senior precepted clinical practicum (QI).
9. Encouraged clinical participation in a Root Cause Analysis experience (QI, S).
10. Incorporated *First, Do No Harm*, Josie King video and *Lewis Blackman* into several courses (S, QI, PCC).

+ Study Purpose

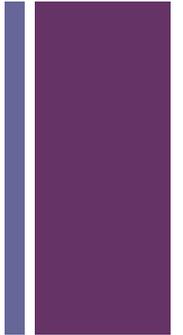
- To evaluate the success of the infusion of focused patient safety education in a baccalaureate curriculum, as perceived by students.
- To describe the relationship of various demographic factors to students' perception of their patient safety knowledge, skills and attitudes.



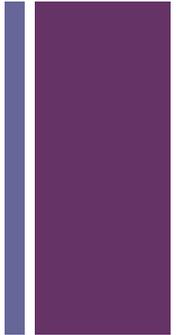
+ Research Questions

- In what courses do students perceive that safety principles are emphasized?
- Do students report that safety competencies are sufficiently infused into the nursing curriculum?
- Do Curry College students demonstrate positive Knowledge, Skills and Attitudes about patient safety, as measured by a patient safety assessment scale?
- What factors most correlate with student scores on the patient safety assessment?
- Is there a difference between sophomore, junior, and senior students in their perception of patient safety Knowledge, Skills and Attitudes?

+ Methodology

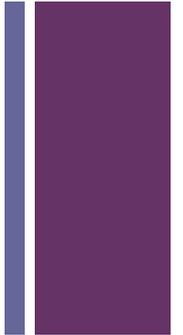


- Quantitative non-experimental, descriptive design
- Sample
 - 229 Sophomore, Junior and Senior baccalaureate nursing students
 - 2011 – 92 students
 - 2012 – 137 students



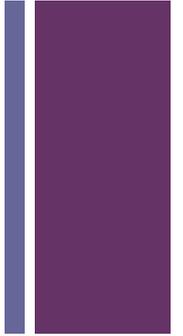
■ Procedure (2011)

- Patient safety scale constructed – modified from Schnall et al. (2008) and Chenot (2010) (both previously modified from Madigosky et al. , 2006)
- Three subscales measuring Knowledge, Attitudes, and Skills (K,S,A)
- Validity and reliability of scales described previously
- Because of possible lack of programmatic exposure to skills, subscale was changed from assessing competence to assessing confidence (Bandura, 1994)



■ Procedure 2012

- Attitude scale problematic for reliability
 - revised to exclude items of “best care” and “physicians should be the health care professionals to report”
 - Items appeared unclear
 - Slightly improved reliability
- New attitude scale constructed and tested

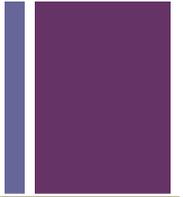


■ Procedure 2011 and 2012

- Spring semester - E-mail requesting study participation sent to all students enrolled in nursing courses, beginning with Adult Medical/Surgical Nursing 1
- Link provided to Survey Monkey
- Voluntary participation, anonymity assured
- One month given to respond
- Reminder after 2 weeks and again several days before the study closed



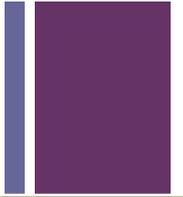
Results – Sample Characteristics



	2011	2012
Number (return rate)	92 students (38%)	137 students (50%)
Class (percent of sample)	Seniors 28 (30%)	Seniors 57 (40%)
	Juniors 29 (32%)	Juniors 50 (37%)
	Sophomores 34 (37%)	Sophomores 29 (21%)
Mean age	21 years	22 years
Gender	Female 88	Female 121
	Male 2	Male 13 *
	Missing 2	Missing 3
Mean years in program	2.5 years	2.3 years
Mean weekly hours worked in health care (excluding clinical)	7.8 hrs (51% report none)	8.4 hrs (50% report none)
Mean years worked	1.2 years	1.4 years



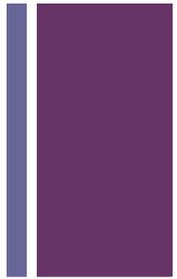
Curriculum Evaluation – Clinical



	2011	2012
Introduction to Nursing	94%	89%
Medical/Surgical Adult 1	74%	90%
Children	94%	93%
Maternity	91%	79%
Mental Health	93%	79%
Community	88%	82%
Medical/Surgical Adult 2	100%	97%
Synthesis	75%	81%



Curriculum Evaluation – Non-Clinical



	2011	2012
Contemporary Topics	32%	74%
Nursing Research	37%	39%
Other Courses Mentioned Care of Older Adult Health Assessment Pharmacology Pathophysiology		
Sufficiency of safety taught overall – “My nursing program provided sufficient education on patient safety (1=Strongly Disagree; 5 = Strongly Agree)	Mean 4.3 Agree	Mean 4.5 Strongly Agree



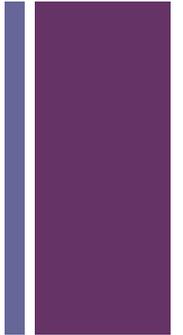
Perceptions of Patient Safety*

	2011	2012
Mean total scale	3.9 (SD .37)	3.9 (SD .39)
Mean Knowledge	3.9 (SD .65)	4 (SD .71)
Mean Skill (Confidence)	3.8 (SD .55)	4 (SD .68)
Mean Attitudes	4 (SD .33)	4 (SD .28)
Error Detection and Reporting		
Observed error during clinical	26% Yes	34% Yes
Report error using incident report	7.6% Yes	6.2% Yes
Ever disclosed error	18.5% Yes	22% Yes

* Scores from 1 to 5, with a higher score being more positive

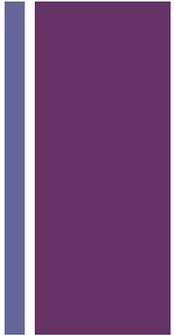
+ Significant Correlations

- Significant Correlations (2011 and 2012 mean scores)
 - Total scale/weekly hours worked ($r = .16, p < .05$)
 - Knowledge/age ($r = -.14, p < .05$)
 - Knowledge/ weekly hours worked ($r = .23, p < .01$)
 - Skill/weekly hours worked ($r = .14, p < .05$)
 - Skill/how long worked ($r = .15, p < .05$)
 - No significant correlations with attitudes





Comparisons

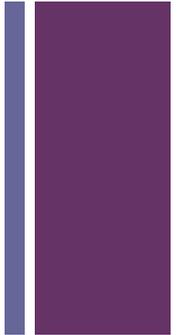


- Comparisons of mean patient safety scores according to class

	2011 Survey	2012 Survey
Total Scale	No significant difference, expected progression (Sr > Jr > Soph)	No significant difference Jr* < Sr & Soph
Knowledge	F = 6.3, p = .003 Sr > Soph p = .004 Jr > Soph p = .03	F = 4.3, p = .02 Sr > Jr p = .02 Soph > Jr (not significant)
Skill	No significant difference, expected progression	No significant difference Sr > Jr but < Soph Jr < Sr and Soph
Attitude	Not significant Sr < both Jr and Soph	Not significant Sr < both Jr and Soph Jr > both Sr and Soph

* First class of new curriculum

+ Effectiveness of the Scale (n=229)



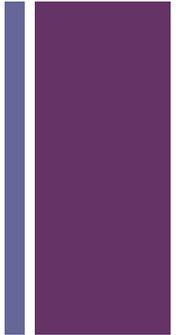
■ Reliability (Alpha)

■ Overall scale	.85
■ Knowledge	.87
■ Skill	.87
■ Attitude	.48

■ Redeveloped attitude scale .63

■ Reliability of attitude scale needs improvement

+ Implications for Nursing



■ Practice

- Students identify clinical experience impacts KSAs of patient safety
- Need for greater clinical exposure

■ Research

- Reliable measure of student perceptions of KSAs

■ Education

- Feasible teaching strategies that can be incorporated into curricula