CAPSTONE COURSE REDESIGN: CREATING COLLABORATIVE PARTNERSHIPS FOR QUALITY AND SAFE HEALTHCARE

QSEN NATIONAL CONFERENCE INNOVATION TO TRANSFORMATION
MAY 30 - JUNE 1, 2012

Ellen Moore, DNP, RN, FNP-BC
Gail Wegner, DNP, RN, PMHCNS-BC
Purdue University Calumet School of Nursing
Hammond, IN 46323
AIM:

- To provide a blueprint for transforming a traditional preceptor-driven prelicensure practicum into an innovative experiential learning capstone course that focuses on EBP and QSEN competency application.

- To provide direction for collaborative partnership development.
OVERVIEW OF PRESENTATION

• Rationale for redesigning course
• Frameworks that guided redesign
• Engaging community partnerships
• Team driven EBP projects
• Types of projects
• Dissemination of projects
• Lessons learned
RATIONALE FOR COURSE REDESIGN

1. Call for educational transformation
2. Increase in BSN enrollment
3. Complexities of nursing practice
4. Competition for clinical sites
5. Enriching preceptor experiences
6. EBP knowledge transfer and utilization
7. QSEN integration
8. Experiential learning

The need for balance!
TRANSFORMING THE CAPSTONE COURSE FRAMEWORKS USED

NSEE

AACN
- The Essentials of Baccalaureate Education for Professional Nursing Practice (AACN, 2008)

IOM

QSEN
- QSEN competencies-teamwork and collaboration, evidence-based practice, quality improvement, safety (2007)
CAPSTONE COURSE IN NURSING

- Engage in activities that promote the importance of nursing and professional nursing roles in creating change in health care environments.
- Design an evidence based practice project that assists individuals, families, groups, or the community meet basic human needs and promote quality of life.
- Disseminate knowledge relevant to nursing in a complex health care environment.
- Demonstrate accountability to the nursing code of ethics and legal standards of practice.
Held several meetings with clinical agency partners: nursing administrators, staff educators, advisory committees, etc.

- Discussed course proposal
- Reviewed roles and responsibilities of students, faculty and clinical agency
- Explained type of projects that were needed and process for obtaining projects

Obtained stakeholder buy in!!!!!
EBP CAPSTONE PROJECT GOALS

- Communicate and collaborate with healthcare professionals to improve patient outcomes through EBP and QSEN competency development.

- Disseminate knowledge to address future sustainability of EBP implementation projects.

- Expand competencies of BSN grads as future EBP champions.
HOW PROJECTS ARE SELECTED

• Request form sent to healthcare agencies two months prior to start of semester
• Agencies identify projects and activities that are currently impacting organization (usually quality improvement and safety initiatives)
• First day of class students form teams and choose up to 5 projects from final project list
• Course coordinators assign projects
THE COURSE BLUEPRINT OVER 16 WEEKS!

- **Week 1** *Course Overview and Project Start-Up*
  Finalize teams; Prioritize project selection; Assign EBP faculty mentor; Meet with project director

- **Week 2** *Project Analysis*
  Project management principle review; EBP review; PICO question; Database search mentor/library scientist; RAPID Appraisal; Teamwork and collaboration; Status reports; Guided reflection via journaling

- **Week 3** *Project Design*
  Engaging in self-directed study; Journal club guidelines; RAPID Critical Appraisal
THE COURSE BLUEPRINT OVER 16 WEEKS!

- **Week 4 Project Design**
  Engaging in self-directed study; Journal club; Faculty EBP Mentor meetings

- **Week 5 Project Design/Intervention Development**
  Applying new knowledge to the problem and peer feedback; Critical appraisal evidence tables/Narrative summary

- **Week 6 Intervention Development**
  Poster presentation review; Journal #2; Team discussions; EBP Plan for implementation: Plan for evaluation
THE COURSE BLUEPRINT OVER 16 WEEKS!

• Week 7 *Intervention Development*; Finalize presentations and posters; peer/EBP/Project Director feedback

• Week 8 *Summarizing and Integrating learning; EBP Showcase and Post-Project Review*; Final reflective journal; EBP Capstone paper (final with SafeAssign)
COURSE ACTIVITIES:

- Literature review and appraisal
- Developing plan for implementation
- Developing plan to evaluate the implementation
- Creating the poster
- Writing the abstract
- SafeAssign requirement
- Completing the final paper
- EBP Showcase
COURSE ACTIVITIES:

• Team meetings
• Weekly with Faculty EBP mentor
• Every 2-4 weeks with Project director
• Student team
• Peer Evaluation of components of EBP paper
• Reflective journals
• Project specified components
EXAMPLES OF PROJECTS

- Developing an adult diaper free facility
- Enhance handoff communication
- Increase physician compliance to hand washing
- Develop and implement plan for a stroke prevention unit
- Develop CAUTI protocol
EXAMPLES OF PROJECTS

• Infection Control Issues
• Fall Prevention Protocols
• Implementation of Hourly Rounds
• Alcohol Withdrawal Protocol for ICU
• Policy/protocol for horizontal violence
• Condition H evidence review/implementation
NOW TO WHAT WE HAVE LEARNED
LESSONS LEARNED: REVISIT WRITING AND EBP LITERACY SKILLS RELATED TO PICO QUESTION, KEYWORDS, AND SEARCHING
<table>
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<th>Description</th>
<th>Strength</th>
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<tr>
<td>I</td>
<td>Evidence from a systematic review or meta-analysis of all relevant randomized controlled trials (RCTs), or evidence-based clinical practice guidelines based on systematic reviews of RCTs</td>
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<td>II</td>
<td>Evidence from at least one well-designed RCT</td>
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<td>III</td>
<td>Evidence from well-designed controlled trials without randomization</td>
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<td>IV</td>
<td>Evidence from well-designed case-control and cohort studies</td>
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<td>V</td>
<td>Evidence from systematic reviews of descriptive and qualitative studies</td>
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<td>VI</td>
<td>Evidence from a single descriptive or qualitative study</td>
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<td>VII</td>
<td>Evidence from the opinion of authorities and/or reports of expert committees</td>
<td>Weakest</td>
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LESSON LEARNED: THE IMPORTANCE OF WEEKLY STATUS REPORTS

- Keep current on work being completed on project
- Barriers and Facilitators for EBP project design
- No substitute for face-to-face contact with project team members!!!
- Keeping everyone on the same page!

- PAPER TRAIL ON A REGULAR BASIS!!!
LESSONS LEARNED: COMMUNICATION

- Communication among teams and agencies—problem solving and conflict negotiation
- Time management and “emergency management” among students and agencies
- Student accountability for poster development and Academic Showcase
- Keeping faculty on same page

Each team was very different!
LESSONS LEARNED: COURSE REVISIONS

- Design project proposals sometimes may take a different direction — manage scope
- Attend to EBP barriers and facilitators
- Importance of student-centered ownership and active participation throughout EBP project with ExL and QSEN reinforcement
LESSONS LEARNED: HANDBOOK DEVELOPMENT

Written Responsibilities:

1. Student
2. Clinical Agency Project Director
3. EBP Faculty Mentor
LESSONS LEARNED: DON’T ASSUME STUDENTS KNOW QSEN COMPETENCIES

• Reinforce selected competencies: teamwork and collaboration; evidence – base practice; patient safety; and quality improvement

• Emphasis on knowledge development, secondary emphasis development of skills and attitudes
OTHER LESSONS LEARNED

- Must start projects selection early
- Must start project design and implementation early
- Must start planning showcase early
- Must start celebrating success early
WHERE WE ARE NOW: EBP PROJECT TEMPLATE

- Abstract
- Introduction—purpose/aim; PICO
- Literature Review--keywords, databases, inclusion/exclusion, critical appraisal table, summary narrative
- Decision for Practice Change
WHERE WE ARE NOW: EBP PROJECT TEMPLATE

- Plan for Evaluation—outcome measurement
- Results/Conclusion/Implications
- References
- Appendix
- Plan for Implementation—stakeholders, organizational fit, barriers/facilitators, resources, timetable
OUR RESOURCES

• Experienced faculty, librarian scientist. good communication, active problem-solving, and “working together”
• Experienced project directors
• Students positive with EBP capstone project outcomes (once it is done!)
• Administrative support and costs associated with poster production and Showcase of EBP projects
PROJECTS FOUR YEARS LATER

- 105 projects completed (May, 2012)
- 25 healthcare organizations partners
- Undergraduate Research Grants and Awards
- Local and State involvement and recognition
- NLN Accreditation recognition as strength
- Students obtaining entry level BSN positions based Capstone competencies
EARLY PROJECT: CAUTI PREVENTION
EARLY PROJECT: FAMILY PRESENCE DURING CARDIOPULMONARY RESUSCITATION
LATER PROJECT: CREATING A BRIEF-FREE COMMUNITY
CREATING EVIDENCE-BASED ISOLATION SIGNAGE
JILLIAN KUKLA, B.A., DAVID LUKOMSKI, B.A., KERRIE TOLLERUD, B.A., JULIEANN VANVUREN, B.A.
Purdue University Calumet School of Nursing

Abstract

Standardizing signage and education materials will simultaneously increase compliance of staff members using personal protective equipment appropriately and decrease the rate of nosocomial infections as well as community-acquired infections. The scope of our project was creating evidence-based isolation signage that is based on the original product presented by Saint Anthony Memorial Hospital. Our literature review showed the original product and other isolation signs available did not follow health literacy research involving public literacy level, appropriate font size for older adults, and clear pictures. We worked with the original product to produce evidence-based signs.

Introduction

• Isolation refers to the separation of people who have a specific infectious illness from those who are healthy, as well as restriction of their movement, to stop the spread of the illness
• Today, isolation is a standard procedure used for patients with tuberculosis and certain other infectious diseases (Siegel, Rhinehart, Jackson, & Chiarello, 2007)
• Standardizing signage and education materials will simultaneously increase compliance of staff members using personal protective equipment appropriately and decrease the rate of nosocomial infections as well as community-acquired infections.
• The scope of our project was creating evidence-based isolation signage that is based on the original product presented by Saint Anthony Memorial Hospital.

Methods

• Our literature review showed the original product and other isolation signs available did not follow health literacy research involving public literacy level, appropriate font size for older adults, and clear pictures.
• We worked with the original product to produce evidence-based signs.
• We also needed to incorporate Spanish into the signs in a way that was simple to read and understand.
• The new signs had North Carolina isolation sign colors, which were the first color standards used and were incorporated by Washington State for their isolation sign standards, so we continued to use those colors so that the new signs will follow those standards already in place.
• The new sign layout uses appropriate isolation precautions that are stated in a fifth grade literacy level.
• The text is 14 point font or larger and is clearly read in black text against a white background.
• The silhouettes are also clearly visible as black print on white paper against a white background.
• The text is 14 point font or larger and is clearly read in black text against a white background.
• The new signage is not ready, at its current status, to be put up into Indiana hospitals.
• What we did complete is a product that, if used as the base by which future work is done, will protect patients, staff, and visitors of the hospitals of the state of Indiana.
• The signs can assist with lowering infection rates because the instructions are easily understood.
• The first recommendation for future work is to have the Spanish on the signs viewed by a professional translator.
• Another recommendation is to have the signs evaluated in the community. This process could also be completed for the appropriateness of the Spanish translations.
• A final recommendation would be for the CDC to create isolation signs for our nationality.

Results

The new sign layout uses appropriate isolation precautions that are stated in a fifth grade literacy level.

The text is 14 point font or larger and is clearly read in black text against a white background.

The silhouettes are also clearly visible as black print on white paper and can work as standalone identifiers as to what actions are necessary.

Conclusion

• The new signage is not ready, at its current status, to be put up into Indiana hospitals.
• What we did complete is a product that, if used as the base by which future work is done, will protect patients, staff, and visitors of the hospitals of the state of Indiana.
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Acknowledgements

Faculty Preceptor: Ellen Moore, RN, MNHS, SNP-BC
Project Director: Janene Gumz-Pulaski, RN, BSN, MBA, CIC
Saint Anthony Memorial Hospital
Dr. Peggy S. Gerard, DWSc, RN, Dolores Huffman, PhD, RN
Atom Groom Design

References

List available upon request

Abstract

• The book “Health Literacy in Primary Care: A Clinician’s Guide” became the guide book for the creation of the new signage, providing information for proper implementation of signs and information in the appropriate literacy level (Mayer & Villaire, 2007).
• “Promoting Health Care Equity: Is Health Literacy a Missing Link?” has very clear and concise definitions of health literacy and outlines how health affects different racial groups and different levels of education (Hansan-Wynia & Wolf, 2010).
• “Health Literacy: The Gap Between Physicians and Patients” presents statistics showing the gap between the education of staff and patients. They thoroughly cover the concepts of the impact, the assessment, and the addressing of health literacy problems and offer suggestions for assisting with patients of lower health literacy and potential sources for further information for physicians with concerns (Safer & Keenan, 2005).
• The Centers for Disease Control and Prevention (CDC) has created and updated isolation guidelines. Isolation precautions come from these CDC guidelines, and these guidelines are used in creating isolation signage (Siegel, Rhinehart, Jackson, & Chiarello, 2007).
• North Carolina becoming the “first state to have a ‘voluntary’ unification color scheme for isolation signage” (Hoffman, 2007).
• Our research shows that there are plenty of isolation signs other than North Carolina’s. With all of the different signs available, there is a variety of designs used involving different content, colors, pictures, and phrases.

Methods

• Our literature review showed the original product and other isolation signs available did not follow health literacy research involving public literacy level, appropriate font size for older adults, and clear pictures.
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Fall Rate Reduction Strategies in the Hospitalized Adult Medical-Surgical Population
Alyssa Homan, Justin Homan, and Amy Miles
Baccalaureate Capstone Students, School of Nursing, Purdue University Calumet

Introduction
Fall rates are important quality indicators in any healthcare facility. The personal cost of a fall in the hospital setting can include:
- extended hospital stays
- physical injuries
- anxiety
- decrements to an individual’s expected outcomes (Institute for Clinical Systems Improvement, 2010)
- One in three individuals over the age of 65 and one in two individuals over the age of 80 are expected to suffer from a fall annually (The Joanne Briggs Institute, 2010).
- The annual cost of all fall injuries is expected to reach $34.9 billion by the year 2020 (Centers for Disease Control and Prevention, 2011).

PICO Question
In hospitalized adult medical-surgical patients how does implementing evidence-based practice interventions compared to the host facility’s current practices of bed alarm use, fall indicators at the door, and hourly rounding by hospital staff help to reduce the occurrence of falls?

Literature Review and Appraisal
- Databases Searched:
  - Cochrane Library, CINAHL, JBI Connect, Medline, ScienceDirect, and the Wiley Online Library
- Keywords: “adult,” “medical surgical,” “accidental fall,” “falls,” “fall prevention program,” and “program development”
- Inclusion Criteria:
  - English-language literature published from 2007 to present

Level of Evidence/Sources

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From Meehan & Fount O’Keeffe, 2010

Synthesis of Evidence

Common Themes
- Precipitating Factors
  - Delirium, impulsivity, or any other cognitive impairment that limits one’s ability to perform activities of daily living
  - Supported by 3 studies

- Environmental Factors
  - Use of vinyl flooring, night lights, bed rails, regular tiling, answering call lights rapidly, treating delirium, and clearing a path to the bedside commode/bathroom
  - Supported by 4 studies

- Barriers to Fall Prevention Implementation
  - Patient status upon admission, patient status change over time, ability of patient to follow directions, lack of resources/manpower, level of staff education, lack of fidelity to fall prevention initiatives by health care professionals
  - Supported by 4 studies

Evidence-Based Fall Prevention Strategies
- Fall Risk Assessment
  - Should be conducted regularly to note change in patient status
  - Interventions should correlate with patient risk
  - Supported by 4 studies

- Fall Risk Identification Measures
  - Could include: door markers, wristbands, fall risk alert cards
  - Supported by 4 studies

- Multidisciplinary, Multifactorial Fall Prevention Strategies
  - The culmination of multiple interventions and professions to prevent falls
  - Supported by 2 studies

- Patient/Family Education
  - Occurrence of fall prevention and reduction is more likely when all involved in the care of a patient are educated on preventative strategies
  - Supported by 2 studies

- Hourly Rounding
  - Hourly face-to-face interaction with patient alternated by nursing staff and assistive personnel
  - Supported by 2 studies

Recommendations
- Staggered shift change with walking handoff between incoming and outgoing nursing personnel
- Stringent observation of fall prevention program implementation by all stakeholders
- Patient/family education about fall prevention
  - Including educational material (See section below)
- Measures to increase staff fidelity such as quarterly educational reminders
- A continuation of current evidence-based hospital practices
  - Fall indicators, fall risk assessment, bed alarm use, hourly rounding

Conclusions
In order to systematically address the issue of fall prevention in the acute care setting, higher-level research should be conducted. The ultimate goal of this research should be to add congruent and generalizable evidence to the current body of knowledge.

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LOOKING TOWARDS THE FUTURE

We thank all of our Capstone students and healthcare partners who were actively involved in preparing for the challenges that lie ahead.

We embrace a learning organization culture that supports innovation…and…it has been an exciting ExL experience that will continue to grow!
CONTACT INFORMATION

• Ellen Moore: emoore@purduecal.edu
• Gail D. Wegner: gail.wegner@purduecal.edu