Opportunities and barriers to building evidence-based practice skills in the clinical setting via mobile technology

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Introduction
Evidence-based practice (EBP) implementation leads to high-quality, high value care and is an expectation for practicing nurses. Curricular integration of EBP concepts is heavily researched in didactic settings, and less in the clinical environment. The portability of mobile devices creates possibilities for students to apply steps of the EBP process at the bedside. This project describes how curriculum mapping and a research project on BSN student iPads use helped with evaluating didactic and clinical curricular integration of EBP.

Methods
Curricular Assessment:
- Biennial review of all 4 semesters in BSN Program
- Assessment of EBP integration across didactic and clinical courses
- Map course assignments and activities to EBP SLOs
- Integrate technology to foster EBP competency

EBP & Information Literacy Assessment:
- Sequential, mixed-methods study
- IRB Approved
- Two cohorts of second semester nursing students

Survey:
- Demographics
- Mobile Technology Experience
- Clinical Environment Resource Assessment
- Modified EBP Work Environment Scale (Pryse, McDaniel, Schafer, 2014)

Semi-structured Interviews:
Student self-assessment of EBP competency attainment

Course Sequence

Semester 1
- Clinical Apps 1:
  - Pathophysiology & Pharmacology
  - Health Assessment
  - Nursing Foundations

Semester 2
- Clinical Apps 2:
  - Women’s Health
  - Psych-Mental Health
  - Art & Science of Nursing

Semester 3
- Population-Centered Health in the Community
- Child Health
- Clinical Applications 3
- Nursing Inquiry & Research

Semester 4
- Transition to Practice
- Capstone
- Nursing Informatics

*Denotes a linked clinical course

Curricular Findings
The Undergraduate Curriculum Committee found that, although scholarship is a SLO that is linked to each course through a focused objective, comprehensive content mapping did not identify clear course activities, readings, lectures, or assessments in first and second semester courses.

Student Survey & Interview Findings
118 survey participants; 12 interviews

Mobile Technology Findings
54% iPad usage

Barriers:
- Computer availability
- EHR documentation issues
- Distraction perception
- Concerns for theft

Conclusions
Curricular Changes: Scaffolding core EBP competencies
- Nursing Foundations, Nursing Inquiry & Research

Exemplar: Nursing Foundations, semester 1 level
Didactic course re-design; team-based learning activities
- Delineating EBP and Research
- Introduction to search and appraisal methods
- Linking Nursing Foundations purposefully with clinical experiences
- Clinical Applications 1 clinical
- Integration of EBP concepts in patient plan of care

Implications
Nursing Education
- Importance of scaffolding of EBP Competencies across the curriculum
- Digital natives still need guidance in navigating use of mobile technologies in clinical settings