Evidence-based Practice in Healthcare: Implications for Nursing Education

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Objectives

Upon completion of this learning activity, participants will:

• Discuss the role of EBP in healthcare today

• Discuss the importance of integrating EBP into educational programs at all levels.

• Discuss tools to structure EBP integration into nursing curricula at all levels.
Adoption of the Patient Protection and Affordable Care Act changed U.S. Healthcare

Patient Protection and Affordable Care Act, Retrieved 3/30/18; Neiderman et al. 2011.
# EXHIBIT ES-1. OVERALL RANKING

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<tr>
<th>Country</th>
<th>AUS</th>
<th>CAN</th>
<th>FRA</th>
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<tr>
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<tr>
<td>Health Expenditures/Per Capita, 2011**</td>
<td>$3,800</td>
<td>$4,522</td>
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</table>

Notes: * includes this. ** Expenditures shown in $US PPP (purchasing power parity); Australian $ data are from 2010. Source: Calculated by The Commonwealth Fund based on 2011 International Health Policy Survey of Sicker Adults; 2012 International Health Policy Survey of Primary Care Physicians; 2013 International Health Policy Survey; Commonwealth Fund National Scorecard 2011; World Health Organization; and Organization for Economic Cooperation and Development, OECD Health Data, 2013 (Paris: OECD, Nov. 2013).

U.S. Healthcare is struggling
Unintended medical errors claim 440,000 people a year in the U.S.
EBP helps us get to The Institute of Medicine’s Quadruple Aim in Healthcare

EBP is an expectation in U.S. Healthcare!!

Accreditation Standards...Education Standards...Professional Organizations...Practice Guidelines...Policy
The Establishment of Evidence-based Practice Competencies for Practicing Registered Nurses and Advanced Practice Nurses in Real-World Clinical Settings: Proficiencies to Improve Healthcare Quality, Reliability, Patient Outcomes, and Costs

Bernadette Mazurek Melnyk, RN, PhD, CRNP FAANP, FNAP, FANN
Lynn Gallagher-Ford, RN, PhD, DPFNAP, NE-BC
Lisa English Long, RN, MSN, CNS
Ellen Fineout-Overholt, RN, PhD, FAAN

EBP Competencies:

- First 13 for all practicing registered nurses
- Last 10 for advanced practice nurses
Competency = Knowledge + Skills + Attitudes
First National EBP Competency Study in U.S. Nurses

Aims:
• Describe the state of EBP competency in nurses across the U.S.
• Determine important factors associated with EBP competency

Methods/Sample:
• Surveyed 2,344 nurses from 19 hospitals/healthcare
• Mean age = 44.5 years
• 92% female
• 85% non-Hispanic White
• 58% had a bachelor’s degree
• 69.2% worked in a Magnet organization

State of Self-reported EBP Competencies by Nurses Across the United States (N = 2075)
EBP must become an integral part of nursing curricula.
Choose an EBP model

Melnyk & Fineout-Overholt’s Advancing Research and Clinical practice through Close collaboration (ARCC) Model

© Melnyk & Fineout-Overholt, 2005
The EBP Competencies guide integration into curricula

EBP Competencies for all Practicing Registered Professional Nurses

• Searches for external evidence
• Participates in the critical appraisal
• Collects practice data

EBP Competencies for Advanced Practice Nurses

• Systematically conducts and exhaustive search
• Critically appraises relevant pre-appraised evidence
• Generates internal evidence through outcomes management
• **Mentors others in evidence-based decision making**
• **Leads transdisciplinary teams**
Commitment to Excellence:

- Safe and Quality care
- Improved outcomes
- Patient Experience
- Lower healthcare costs
- Improved clinician outcomes
We can’t teach what we do not know AND clinicians can’t implement what they don’t know
Meaningful integration of EBP into academic programs is key
The time has come for EBP integration!!

ready. set. go!
References


Integrating Evidence-based Practice as a Way of Thinking in an Undergraduate Curriculum

Wendy Bowles PhD, RN, CPNP
Assistant Dean for Baccalaureate Programs
Objectives

• Identify evidence-based pedagogies for teaching and learning evidence-based practice
• Discuss teaching evidence-based practice as a way of thinking about clinical-decision making
• Synthesize how evidence-based practice may be integrated throughout curriculum.
Pedagogy of Teaching EBP

- Pedagogy
- Competencies
- EB teaching strategy
Pedagogy and Epistemological Approaches

• EB teaching strategies vs. Teaching EBP
• A way of *Being* and *Thinking* with student
  – Constructivism
  – Social Learning Theory
• Synthesis
  – Higher level of thinking
  – Builds on lower levels (knowledge/comprehension)
Competency-based Frameworks

• Pedagogy and competency-based
• Competency
  – Framework (Melnyk et al, 2014)
  – Structure
• Teaching using framework
  – What is EB teaching
  – How does literature relate to teaching that competency
Literature Review

• Pedagogical strategies to teach bachelor students evidence-based practice (Aglen, 2016)
  – Systematic Review
  – Students struggle with translation of EBP to practice – faculty need to focus on transfer of knowledge as relates to practice. (“real” work of nurses)

• Developing information literacy (IL) skills in pre-registration nurses (Brettle & Raynor, 2013)
  – RCT
  – Author recommends to incorporate IL throughout curriculum become competent in integrating EBP.
Literature Review (con’t)

• EBP teaching practice (EBTP) in nursing ed: Faculty Perspectives and Practices (Kalb et al, 2015)
  – Descriptive / Quantitative
  – Faculty value EBP, but need administrator support along with workload time for development

• Knowledge and Competency of Nursing Faculty Regarding EBP (Orta et. al, 2016)
  – Descriptive / Quantitative
  – Intervention increased competency, but not knowledge (Faculty knowledge was similar to students beginning EBP)
Curricular Integration

• Outcome competency measurements for EBP throughout curriculum
• Integrate EB teaching strategies that create active learning
• Students learn how and when to find evidence at various stages in the curriculum
EBP as a way of THINKING

Knowledge ➔ Decision

How ➔ EBP
Student Perspectives
References


Framework for Integrating Evidence-based Practice (EBP) in an Undergraduate Curriculum

Amy Jauch, MSN, RN, CNE
Framework Overview

• Site Specific
  – Adapted for use in undergraduate nursing programs

• Faculty Driven
  – Where and how integrated
Framework Components

Steps of EBP

<table>
<thead>
<tr>
<th>STEP 0:</th>
<th>Cultivate a spirit of inquiry along with and EBP culture and environment</th>
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</thead>
<tbody>
<tr>
<td>STEP 1:</td>
<td>Ask the PICO(T) question</td>
</tr>
<tr>
<td>STEP 2:</td>
<td>Search for the best evidence</td>
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<tr>
<td>STEP 3:</td>
<td>Critically appraise the evidence</td>
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<tr>
<td>STEP 4:</td>
<td>Integrate the evidence with clinical expertise and patient preferences to make the best clinical decision</td>
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<tr>
<td>STEP 5:</td>
<td>Evaluate the outcome(s) of the EBP practice change</td>
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<tr>
<td>STEP 6:</td>
<td>Disseminate the outcome(s)</td>
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</tbody>
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(Melnyk & Fineout-Overholt, 2015)
Framework Components

EBP Competencies for Practicing Registered Professional Nurses

1. Questions clinical practices for the purpose of improving the quality of care.
2. Describes clinical problems using internal evidence.
3. Participates in the formulation of clinical questions using PICOT format.
4. Searches for external evidence to answer focused clinical questions.
5. Participates in critical appraisal of preappraised evidence.
6. Participates in critical appraisal of published research studies to determine their strength and applicability to clinical practice.
7. Participates in the evaluation and synthesis of a body of evidence gathered to determine its strength and applicability to clinical practice.

(Melnyk, Gallagher-Ford, Long, & Fineout-Overholt, 2014)
<table>
<thead>
<tr>
<th>Framework Components</th>
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<tbody>
<tr>
<td><strong>EBP Competencies for Practicing Registered Professional Nurses</strong></td>
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</tbody>
</table>

8. Collects practice data systematically as internal evidence for clinical decision making in the care of individuals, groups, and populations.

9. Integrates evidence gathered from external and internal sources in order to plan evidence-based practice changes.

10. Implements practice changes based on evidence and clinical expertise and patient preferences to improve care processes and patient outcomes.

11. Evaluates outcomes of evidence-based decisions and practices changes for individuals, groups, and populations to determine best practices.

12. Disseminates best practices supported by evidence to improve quality of care and patient outcomes.

13. Participates in strategies to sustain an evidence-based practice culture.

(Melnyk et al., 2014)
Alignment of EBP Steps and Competencies

**Step 0:** Cultivate a Spirit of Inquiry
- EBP Competencies 1, 2

**Step 1:** Ask the PICO(T) Question
- EBP Competency 3
Alignment of EBP Steps and Competencies

**Step 2:** Search for the best evidence  
- EBP Competencies 4, 5, 6

**Step 3:** Critically appraise the evidence  
- EBP Competencies 5, 6, 7
Alignment of EBP Steps and Competencies

**Step 4:** Integrate the evidence with clinical expertise & patient preferences to make the best clinical decision

- EBP Competencies 8, 9, & 10

**Step 5:** Evaluate the outcome(s) of the EBP practice change

- EBP Competency 11
Alignment of EBP Steps and Competencies

**Step 6:** Disseminate the outcome(s)

- EBP Competency 12

**EBP Competency 13:** Participates in strategies to sustain an evidence-based practice culture.
Curriculum Integration Example

Integrated through theory, clinical, and lab experiences.

1st Course, Semester, or Quarter
- Introduction to all steps of EBP
- EBP Step 0
- EBP Step 1

2nd Course, Semester, or Quarter
- EBP Step 2
- EBP Step 3
- EBP Step 4

3rd Course, Semester, or Quarter
- EBP Step 5
- EBP Step 6

4th & Subsequent Courses, Semesters, or Quarters
- Continue to use and evaluate all steps of EBP

The Ohio State University
College of Nursing

Transforming health, Transforming lives
Evaluation of EBP Competencies

**Step 0: Cultivate Spirit of Inquiry**

| EBP Competencies 1 & 2 | Write clinical inquiry summary paragraph |

**Step 1: Ask the PICO(T) Question**

| EBP Competency 3 | Develop a PICOT question to search the literature |
Evaluation of EBP Competencies

**Step 2:** Search for the best evidence

EBP Competencies 4, 5, 6  |  Summary table of evidence found, including search strategies

**Step 3:** Critically appraise the evidence

EBP competencies 5, 6, 7  |  Complete critical appraisal forms
### Evaluation of EBP Competencies

#### Step 4: Integrate the evidence with clinical expertise & patient preferences to make the best clinical decision

| EBP Competencies 8, 9, 10 | Proposes practice change using evidence-based decision making |

#### Step 5: Evaluate the outcome(s) of the EBP practice change

| EBP Competency 11 | Describes metrics used to evaluate the outcome of the practice change |
Evaluation of EBP Competencies

**Step 6:** Disseminate the outcome(s)

| EBP Competency 12 | Poster presentation about the practice change |

Participates in strategies to sustain an EBP culture

| EBP Competency 13 | Observation of knowledge, skills, and attitudes when completing EBP related assignments |
References
