Assessing EBP Competency, Beliefs, Knowledge and teaching in Nursing Faculty: A National Study

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I have no conflicts of interest to declare surrounding this presentation.

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Background and Significance
Let’s establish common ground
Evidence-Based Practice

A paradigm and lifelong problem-solving approach to clinical decision making that involves the conscientious use of the best available evidence with one’s own clinical expertise and patient values and preferences to improve outcomes for individuals, groups, communities and systems.

Melnyk, B. M. & Fineout-Overholt, 2015
“Best available evidence” includes:

External Evidence—information housed within national and global databases & reputable websites that track and report data national benchmark data (i.e. CDC, WHO, AHRQ, NDNQI, etc.)
“Best available evidence” also includes clinical expertise where internal evidence exists

Internal evidence—data generated and collected from within your organization that reflects organizational performance in key areas and/or the state of patient and population health.
Evidence-based Practice
not evidence-only practice
• EBP is EVERYWHERE

• The way healthcare does business

• It’s evolving

• Not just for patient care

• Leads to quality, safety, best outcomes for all!
So much confusion around EBP

…and understandably so!
EBP: The “new kid on the block”

- **1856**: Nursing research
- **1966**: Quality Improvement gets its start
- **1996**: Evidence-based Practice arrives; Nursing models for EBP created
- **2009**:
There are different approaches to EBP across healthcare professions!
Which model should we use?
Permission granted to be confused!!
EBP is THE WORD!!

Reimbursement…Accreditation…Magnet…Essentials of Education…Clinical Practice Guidelines…Policy
“Improving outcomes through EBP” is a global theme!!
LET US PAUSE FOR A PUBLIC SERVICE ANNOUNCEMENT!!

The Quadruple Aim in Healthcare

- Better Outcomes
- Improved Clinician Experience
- Lower Costs
- Improved Patient Experience
From practice based on tradition to evidence-based practice!!
CURRENT STATE OF EBP COMPETENCY IN NURSES AND ORGANIZATIONS: CRITICAL IMPLICATIONS FOR IMPROVING OUTCOMES

Worldviews in Evidence-based Nursing, Jan 2018

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Faculty cannot teach what they themselves don’t know
The first national study on EBP in nursing academics!!!
National Study on EBP Competency, Beliefs, Knowledge and Integration in Nursing Academics: a Mixed Methods Study: Preliminary Results

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This study was deemed “exempt research” by the Institutional Review Board of The Ohio State University

Study ID 2017E0693
Purpose of the study:
The purposes of this study was to determine the current state of EBP amongst nursing faculty across the United States in regards to:
- EBP Beliefs
- Knowledge
- Competency
- Integration into educational programs
Research questions included:

• How do nursing faculty perceive their EBP competency?
• How does that perception align with their EBP knowledge?
• What are nursing faculty teaching as EBP?
Methods:
Cross-sectional, descriptive study

- Valid and reliable surveys used:
  - EBP Beliefs Scale
  - EBP Knowledge Acquisition Questionaire (EBP-KAQ)
  - EBP Competency Scale

In addition, demographic questions and open-ended questions around Integration into educational programs from Melnyk, 2008 study were also included.
Surveys distributed through:

Round 1: The QSEN Story

Round 2: Faculty
Accessed through the
American Association of
Colleges of Nursing Deans
and Directors
QSEN stands for “Quality and Safety Education in Nursing”

- Housed at Case Western Reserve University, Cleveland OH, USA

- QSEN Core Competencies include:
  - Patient-Centered Care
  - Teamwork & Collaboration
  - Evidence Based Practice
  - Quality Improvement
  - Safety
  - Informatics
Data Analysis:
• Quantitative Data
  • Descriptive statistics
  • Structural Equation Analysis

• Qualitative Analysis done to identify themes:
  • Responses aligned with the seven steps of EBP according to Melnyk & Fineout-Overholt (2015)
  • Coding done through consensus
Who are the U.S. Nursing Faculty?

- **Age**
  - (Mean 56.1 yrs)
  - <45
  - 45-54
  - 55-64
  - >64

- **Highest Level of Education**
  - Associates
  - Bachelors
  - Masters
  - DNP
  - PhD
  - Other

- **Years of Teaching**
  - <5 yrs
  - 5-9 yrs
  - 10-19 yrs
  - 20+ yrs

- **Academic Program teaching in**
  - Undergrad
  - Masters
  - DNP
  - PhD
Self-reported EBP Competencies by Level of Education (All Nurses vs Academics)

**EBP Competency**

- Questions clinical practices for quality improvement
- Describes clinical problems using internal evidence
- Searches for external evidence for clinical questions
- Implements changes to improve care
- Strategies to sustain an EBP culture
- Disseminates best practice evidences
- Collects data as internal evidence
- Evaluates outcomes
- Integrates external/internal evidences
- Communicates best evidence
- Implements strategies to sustain an EBP culture
- Critical appraisal of evidence
- Measures processes/outcomes of clinical decisions
- Evaluation and synthesis of evidence
- Critical appraisal of published research
- Formulates clinical questions using PICO(T) format
- Mentors others
- Generates external evidence
- Integrates a body of external evidence
- Systematically search for external evidence
- Formulates evidence-based policies/procedures
- Critically appraises pre-appraised evidence/studies
- Generates internal evidence
- Leads trans-disciplinary teams

**Level of Education**

- All
- Bachelor
- Master

**Strength Levels**

- Strongest
- Competent
- Highly Competent

**Not Competent**

- PhD
- DNP
EBP Knowledge Acquisition Questionnaire (EBP-KAQ)

- 38 items
- Multiple choice and true/false
- Valid and reliable
- Measures very fundamental EBP knowledge
Sample Questions on the EBP Knowledge Acquisition Questionnaire

2. EBP is:

  o a) An analytical approach to answering a research question. (1)

  o b) A problem-solving approach to case management. (2)

  o c) A problem-solving approach to the delivery of health care. (3)

  o d) An analytical approach to quality improvement. (4)

  o e) I don’t know. (5)

Special thank you to Drs. Daryl Spurlock and Amy Wonder who contributed to the creation of the EBP-KAQ
Mean Scores and Standard Deviations on Knowledge Test by Highest Level of Instructors' Education

<table>
<thead>
<tr>
<th>Highest Level of Education</th>
<th>Associate/Bachelor's/Other</th>
<th>Masters</th>
<th>DNP</th>
<th>PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Score</td>
<td>25.4</td>
<td>24.6</td>
<td>29.9</td>
<td>29</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>6.8</td>
<td>5.1</td>
<td>4.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>
Disconnect between faculty’s self-perceived EBP competence and EBP knowledge

10 point scale

- **A**: 100%-90%
- **B**: 89%-80%
- **C**: 79%-70%
- **D**: 69%-60%
- **F**: >60%

7 point scale

- **A**: 100%-93%
- **B**: 92%-85%
- **C**: 84%-77%
- **D**: 76%-69%
- **F**: >69%
Qualitative data based on the Melnyk & Fineout-Overholt Seven Steps of EBP

<table>
<thead>
<tr>
<th>Step 0:</th>
<th>Cultivate a Spirit of Inquiry &amp; EBP Culture</th>
</tr>
</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>
</tr>
<tr>
<td>Step 3:</td>
<td>Critically Appraise the Evidence</td>
</tr>
<tr>
<td>Step 4:</td>
<td>Integrate the Evidence with Your Clinical Expertise and Patient Preferences to Make the Best Clinical Decision</td>
</tr>
<tr>
<td>Step 5:</td>
<td>Evaluate the Outcome(s) of the EBP Practice Change</td>
</tr>
<tr>
<td>Step 6:</td>
<td>Disseminate the Outcome(s)</td>
</tr>
</tbody>
</table>
Let’s compare: QSEN vs General Population of faculty
“If you teach in a program, please provide an example of EBP assignments that you require of your baccalaureate students”

Round 1

Bachelor's Degree n = 69
- 69% Doing quality improvement
- 25% EBP Steps Identified from description of exemplar
- 6% Unable to identify steps from description of exemplar

Round 2

Bachelor's Degree n = 85
- 69% Doing quality improvement
- 26% EBP steps identified from description of exemplar
- 5% Unable to identify steps from description of exemplar
"If you teach in a program, please provide an example of EBP assignments that you require of your baccalaureate students"
“If you teach in a master’s program, please give an example of EBP assignments that you require of your master's students”
“If you teach in a master’s program, please give an example of EBP assignments that you require of your master's students”
“If you teach in a Doctor of Nursing Practice (DNP) program, please give an example of EBP assignments that you require of your DNP students.”
“If you teach in a Doctor of Nursing Practice (DNP) program, please give an example of EBP assignments that you require of your DNP students”
Final data analysis including:

- Further quantitative analysis
- Qualitative analysis of additional questions around barriers and facilitators to EBP integration and support needed to make EBP integration a reality

Manuscript submission!!
Discussion/Conclusions

• Currently, the faculty workforce in the U.S. is very experienced.
• Many factors Disconnect between faculty’s self-perceived EBP knowledge and competency
• Opportunities exist to diffuse confusion between EBP, Research and Quality Improvement
• Faculty must take advantage of development opportunities that provide appropriate EBP education to get blurring between EBP and research is needed
Limitations

- Distribution method
- Response rate
- Length of the survey
- Competing priorities for statistical analysis support
Recommendations

• Opportunities for faculty development around EBP and EBP integration that dispels the confusion between and blending of language around EBP, research and Quality Improvement (QI)
• Faculty must take advantage of development opportunities that provide appropriate, intentional EBP
• Additional research is indicated
You’re invited !!!!!

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