An Evidence-Based Practice (EBP) Pilot Project: Taking EBP to the Bedside

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Joni M. Brady, MSN, RN, CAPA

Funded by 2013 Inova Research Center Seed Grant
“Findings from studies have indicated the multiple benefits of delivering evidence-based practice (EBP), including a higher quality of care, improved reliability (i.e., safety), enhanced patient outcomes, and reduced healthcare costs.”

**BUT …**

“It is still not consistently implemented by clinicians in healthcare settings”

**WHY?**

Barriers

- What is our model?
- How, When?
- Lack of knowledge and skills
- Peer resistance
- Lack of access to resources
- Lack of EBP mentor
- Lack of time

The story …

- Assessment
- Seed Grant
- Education Program
- Research Study
- Quality Improvement
Acknowledgements

Funding provided by an Inova Research Center Seed Grant

Inova Health Sciences Librarians ~ Melinda Byrns, MS, MLS

Paula R. Graling, DNP, RN, CNS, CNOR, FAAN – Inova Fairfax Medical Campus

Candice J. Sullivan, PhD, RN-BC, RNC-OB, C-EFM - Inova Learning Network

Kate Sullivan – Inova Edelman Center for Nursing

Renee Milligan, PhD, CRNP, FAAN

Inova Nursing Research and EBP Council Co-Investigators
  • Christine Althoff, MSN, RN, AOCNS
  • Suzy Fehr, PhD, RN, NE-BC
  • Mary Gibbons, MSN, RN, NE-BC
  • Sara Phillippe, DNP, MSHCA, RN, NE-BC
  • Debra Stanger, MSN, RN, NE-BC

Inova Hospital Pilot Units
  • Alexandria: TWIG Unit 28
  • Fairfax: Orthopaedic Unit
  • Fair Oaks: Medical Unit
  • Loudoun: Medical/Surgical Unit
  • Mount Vernon: Surgical Unit
EBP involves …

• Systematic problem solving
• Integration of best evidence, clinical proficiency
• Clinical decision-making, expertise
• Patient preferences, values
  • patient experience
• Available assets, cost effectiveness
• Interprofessional collaboration

... every health care delivery system
Problems are appropriate for EBP projects when results lead to improvements in patient health, organization of systems or education

(Poe & White, 2010)
"Evaluation of an Education with Mentoring Program for Multihospital System Implementation of a Nursing Evidence-Based Practice (EBP) Model"

(Deborah & Dang, 2012, Appendix A)
Sponsor: Inova Health System
Mentor: Mary Ann Friesen, PhD, RN, CPHQ

Review performed; established need for formal EBP nursing model

- Johns Hopkins Nursing EBP Model (JHNEBPM) selected
  - obtained permission to use model
- 5-hospital JHNEBPM pilot implementation study protocol developed
  - Collaborative education with mentoring program deliverables assigned to doctoral nursing student/sub-investigator
  - Project timeline: October 2013 - May 2014
  - IRB approved by Inova, GMU
Project goals and objectives

- Evaluate effectiveness of formal education with mentoring program
  - Obtain before and after measures
    - EBP-Beliefs Scale
    - EBP-Implementation Scale
      (Melnyk, Fineout-Overholt & Mays, 2008)

- Conduct focus groups

- Analyze program outcomes
  - Didactic program participant evaluations
  - Quantitative and qualitative analyses
Literature review findings

- EBP improves health care outcomes, reduces variations in care and supports Affordable Care Act goals, but requires more dedicated support by health care executives.
- Need exists to support RNs research and EBP educational preparation.
- Little evidence to support optimal methods for developing acute care RN EBP skills needed to sustain its application and enculturation.
  - education, mentoring shown to advance nurses’ EBP beliefs and implementation
  - positive attitude, organizational culture, resource allocation are identified facilitators

(Aitken, Hackwood, Crouch, Clayton, West et al., 2011; Davidson & Brown, 2014; Melnyk, Gallagher-Ford, Troseth, & Wyngarden, 2014; Mitchell, 2013)
Provision of EBP nursing facilitators must occur to achieve a sustained evidence driven clinical practice.

EBP professional development strategies across all levels of nursing foster the subsequent adoption of patient centered, outcomes oriented practices.

- Positive linkage shown in nurse intent to stay, peer respect, interprofessional relationships and teamwork

(Aitken, Hackwood, Crouch, Clayton, West et al., 2011; Davidson & Brown, 2014; Melnyk, Gallagher-Ford, Troseth, & Wyngarden, 2014; Mitchell, 2013)
Figure 1. Flow diagram of included and excluded studies

55 Citations Identified by Literature Search

38 Non-Research Manuscripts Excluded

17 Potentially Relevant Research Studies Identified and Screened for Inclusion (no Level I evidence found)

13 Studies Excluded
- 2 Academic Partnerships
- 2 Outpatient Setting
- 5 Education Intervention
- 3 Mentoring Intervention
- 1 Barriers to EBP Implementation

4 Studies Included in the Review
Education with mentoring
Best evidence

• Subsequent to education and mentoring interventions, even when statistically significant results were not found, clinical nurses reported feeling empowered to find and apply the research knowledge needed to implement new and improved patient care practices.

• EBP education programming coupled with direct experienced clinician mentorship reportedly resulted in better patient outcomes, improved teamwork/nurse engagement.

(Balakas, Sparks, Steurer, & Bryant, 2013; Hauck, Winsett, & Kuric, 2013; Neville & Horbatt, 2008; Wallen et al., 2010)
Education with mentoring
Best evidence

- Studies involving a clinical RN’s problem identification followed by mentored steps for conducting an EBP implementation project were largely successful in achieving the goal of validating or changing practice together with the incorporation of patient preferences and values.

- RNs reported a strong desire to confirm that they provided care rooted in best practice.

(Balakas, Sparks, Steurer, & Bryant, 2013; Hauck, Winsett, & Kuric, 2013; Neville & Horbatt, 2008; Wallen et al., 2010)
Green, Jeffs, Huett et al. (2014) designed 6-month hospital based EBP Academy program

- Didactic sessions combined with clinical mentor support
- Goal to develop practicing nurses into new EBP mentors
  - results pointed to a need for more in depth education on evidence appraisal with increased opportunities for time spent with a mentor

**Implications for nursing:**

Replication of an EBP nursing academy type of program would provide the structure needed to address known barriers to clinical evidence translation, has the potential to sustain EBP implementation within an acute care hospital setting, and holds promise for guiding future evidence translation research.
### Program design
#### Theoretical underpinnings

<table>
<thead>
<tr>
<th>Theory</th>
<th>Rationale</th>
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</table>
| **Lewin’s Theory of Planned Change (LTPC)** | 3 stages inform nursing EBP model implementation process:  
- Unfreezing - recognize a problem or need for change; identify barriers/facilitators; motivate, plan and prepare for new innovation;  
- Moving or transitioning - engage participants in strategic innovation action plan  
- Refreezing - sustain the successful innovation |

(Colquhoun et al., 2010; Greenhalgh, MacFarlane, Bate, & Kyriakidou, 2004; Shirey, 2013; Zaccagnini & White, 2013)
Program design
Theoretical underpinnings

<table>
<thead>
<tr>
<th>Theory</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rogers’ Diffusion of Innovations (DOI) Theory</td>
<td>- Prevalent in knowledge translation research</td>
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<tr>
<td></td>
<td>- Explains how an innovative idea becomes immersed within a particular setting</td>
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<td></td>
<td>- Applicable to acute care hospital nursing practice arena</td>
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<td></td>
<td>- Decision progresses through stages that mirror steps in JHNEBPM implementation project:</td>
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<tr>
<td></td>
<td>Knowledge – increasing participant awareness of the innovation’s existence</td>
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<td>Persuasion – information provided influences formation of an opinion regarding the innovation</td>
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<tr>
<td></td>
<td>Decision – the observed activities lead to a decision regarding the innovation’s adoption</td>
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<tr>
<td></td>
<td>Implementation - the innovation is activated</td>
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<td></td>
<td>Confirmation – specific measures are taken to confirm the decision to adopt or abandon the innovation</td>
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(Colquhoun et al., 2010; Greenhalgh et al., 2004; Shirey, 2013; Zaccagnini & White, 2013)
Education with Mentoring Program Deliverables

✓ **Resource Web site**: open access for all Inova nurses

✓ **8-hour didactic program with course syllabus**
  ▪ content delivered by Inova EBP nursing experts, doctoral nursing student, medical librarian
  ▪ obtained approval for 7 continuing education contact hours
  ▪ provided pilot unit copy of the JHNEBPM text book

✓ **Mentored biweekly literature review phone calls to rank evidence**

✓ **Mentored face-to-face synthesis of evidence meeting with project planning discussion**

✓ **8 weekly electronic EBP Bulletins to educate pilot unit nurses**

✓ **EBP educational kick-off event held for nurses’ on each pilot unit**
  ▪ Provided EBP resource book to supplement unit QI pilot project
  ▪ educate, promote transition to clinical EBP project next steps
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<tbody>
<tr>
<td>Education program outline planning meeting</td>
<td>Speaker review/approval of draft program content outline</td>
<td>PPP slide compilation and editing</td>
<td>Syllabus content development</td>
<td>Syllabus finalized, printed</td>
<td>4/3/14 Synthesis of Evidence Meeting (1200-1400) Meet face-to-face at Cambridge Court</td>
<td>EBP 15 minute staff education session held at each Hospital Pilot Unit during Nurses’ Week</td>
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<tr>
<td>Advertising materials planning</td>
<td>Speaker Bio forms and PowerPoint Presentation (PPP) slides requested</td>
<td>Syllabus content development</td>
<td>Finalize PPP compilation – sent for faculty review/ approval</td>
<td>2/14/14 Class postponed - severe winter weather</td>
<td>Dr. Friesen to plan date for hospital unit EBP project discussion meeting</td>
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<tr>
<td>PICO question framed to guide literature search</td>
<td>Librarian’s extensive literature search produced 49 related abstracts</td>
<td>17 full-text articles independently reviewed by 2 EBP Experts</td>
<td>Order students’ JHNEBPM text</td>
<td>2/21/14 Education Program (0800-1615) + videotaping</td>
<td>Weekly EBP Bulletin distributed</td>
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<tr>
<td>Medical Librarian consulted to perform literature search</td>
<td>Abstracts independently reviewed by 3 EBP experts with consensus achieved</td>
<td>Consensus achieved on final list of 8 articles/pieces of evidence to be reviewed and ranked by EBP experts and students</td>
<td>Program advertising disseminated to hospital pilot units</td>
<td>Evaluation results compiled/reported by ILN</td>
<td>4/3/14 #2</td>
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<tr>
<td></td>
<td>17 relevant abstracts requested for full-text review</td>
<td>Collaborate with Medical Library: Inovanet webpage build to house all EBP course content/support instruction</td>
<td>Inova Learning Network (ILN) continuing education (CE) application packet submission</td>
<td>ILN approved application: 7 CEs to be awarded to participants</td>
<td>3/10/14 #3</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Literature Review Group Phone Calls:</td>
<td>Literature Review Group Phone Call</td>
<td>3/14/14 #4</td>
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<td>- Participants advance review/rate 2 articles then discuss/consensus rank during call</td>
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<td>3/27/14 #5</td>
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<td>- 2/27/14</td>
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<td>Schedule follow-up group face-to-face meeting</td>
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<td>Weekly EBP Bulletin distributed</td>
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<td>2/28/14 #1</td>
<td>2/28/14 #1</td>
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Resource Web site created

Source: http://inovanet.net.inova.org/?id=2370&sid=1

Hyperlinks provided:
- Classroom presentation slides, reference list
- Recommended readings
- PICO question development worksheet
- JHNEBPM worksheets, literature review tools
- 8 articles assigned for review and ranking
- EBP Bulletins
Inova Nursing EBP Resource Web site

Information literacy support hyperlinks provided:

- Video tutorials
- RefWorks
- PubMed and CINAHL database searches
- PICO question developed for pilot unit EBP project
- Assigned manuscripts for review and ranking
  - Followed by mentored review and ranking conference call sessions

Source: http://inovanet.net.inova.org/?id=2370&sid=1
Didactic program developed

Application of the Johns Hopkins Nursing Evidence-Based Practice Model
February 14, 2014

Objectives
Upon completion of this session participants will be able to:
1. Distinguish between nursing research, evidence-based practice, and quality improvement projects.
2. List the components of a researchable practice question (PICO).
3. Locate evidence related to a practice question using the Internet and electronic databases.
4. Rank research and non-research evidence using the Johns Hopkins Nursing Evidence-Based Practice Model's appraisal tools.
5. Describe the steps for evidence translation into practice based on synthesis of the best available evidence.

Program Schedule

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<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>0745</td>
<td>Registration</td>
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<tr>
<td>0800 - 0830</td>
<td>Nursing Research, Evidence Based Practice, and Quality Improvement</td>
<td>Joni Brady, MSN, RN, CAPA</td>
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<tr>
<td>0830 - 0900</td>
<td>EBP's Relationship to Healthcare Organization Priorities and Clinical Outcomes</td>
<td>Dr. Mary Ann Friesen</td>
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<tr>
<td>0900 - 1000</td>
<td>Practice Question, Evidence-Translation (PET); PICO Question Development</td>
<td>Dr. Paula Graing</td>
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<tr>
<td>1000 - 1015</td>
<td>Break</td>
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<tr>
<td>1015 - 1115</td>
<td>Internet and Electronic Database Searches</td>
<td>Melinda Byrns, ME, MLS</td>
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<tr>
<td>1115 - 1215</td>
<td>Levels of Evidence, Quality Rating Scales, Evidence Summatory Table</td>
<td>Dr. Paula Graing</td>
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<tr>
<td>1215 - 1245</td>
<td>Lunch (provided)</td>
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<tr>
<td>1245 - 1445</td>
<td>Application of Quality Rating Scales: Ranking Evidence (Group Practice Session)</td>
<td>P. Graing, J. Brady</td>
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<tr>
<td>1445 - 1500</td>
<td>Break</td>
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<tr>
<td>1500 - 1600</td>
<td>Exemplar: Steps to Implementing Evidence Based Change in Practice</td>
<td>P. Graing, J. Brady</td>
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<tr>
<td>1600 - 1615</td>
<td>Closing Comments, Evaluations</td>
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INOVA
Join the future of health
Didactic program faculty

Mary Ann Friesen, PhD, RN, CPHQ
Mary Ann is Inova’s Nursing Research Coordinator and Chair of the Nursing Research and Evidence Based Practice Council. With over 30 years of nursing/patient education, performance improvement, publishing and consulting experience, she also holds a Certified Professional in Healthcare Quality (CPHQ) credential. Mary Ann served as the Principal investigator for the Picker Institute Always Events® Challenge Grant and is Principal Investigator for several other studies at Inova.

Paula R. Graling, DNP, RN, CNS, CNOR, FAAN
Paula, a perioperative nurse for 31 years, is the Department of Surgery Clinical Nurse Specialist at Inova Fairfax Hospital. She served on the Board of the Association of periOperative Registered Nurses (AORN) and was its President from 2006-2007. Paula is a 2013 American Academy of Nursing Fellow who received her BSN (1982) and MSN (1996) from George Mason University and a Doctorate of Nursing Practice (2010) at Johns Hopkins University.

Course Faculty

Melinda Byrns, MS, MLS
Melinda is a medical librarian at Inova Health Sciences Library who develops and delivers training for healthcare professionals on medical literature databases, health literacy, consumer health, RefWorks, Microsoft Office products, medical images and copyright, and statistics resources. She manages all aspects of the hospital system’s patient education video-on-demand and serves as a Northern Virginia Hospital Alliance’s disaster preparedness program point person. Melinda holds Master’s Degrees in both Library Science and Entomology.

Joni M. Brady, MSN, RN, CAPA
Joni Brady is a Doctor of Nursing Practice in Administration student at George Mason University. She is currently employed at Inova Alexandria Hospital with extensive pain management and peri-anesthesia care experience as a clinician, educator, manager and researcher. Joni obtained peri-anesthesia nursing board certification in 1999, and has published numerous peri-anesthesia articles and book chapters. She currently serves as Secretary for the American Society of PeriAnesthesia Nurses Board of Directors.

Join the future of health
Search for evidence

PICO RELATED SEARCH TERMS USED
For adult medical/surgical patients, will an interactive education strategy related to medications result in improved patient perceptions/outcomes as measured by HCAHPS medications questions?

ROUND 1 RESULTS
Independent 2 person review with consensus achieved on full text articles to be considered

ROUND 2 RESULTS
Independent 3 person review with consensus achieved on final article list to be reviewed and ranked by EBP Team

FINAL LIST OF ARTICLES
Review, rank articles most closely related to the PICO question
Literature search explained
Evidence review methodology

Employed use of established JHNEBPM tools

- Appraisal of Research Evidence
- Appraisal of Non-Research Evidence

(Dearholt & Dang, 2010, Appendix E & F)

Group practice sessions were conducted during the didactic program
Classroom instruction program
Evaluation results (n=21)

How well did the program meet the following educational objectives?

The participant will be able to distinguish between nursing research, evidence based practice, and quality improvement projects.

☐ Achieved in Full = 18  ☐ Partially Achieved = 3  ☐ Not Achieved

The participant will be able to list the components of a researchable practice question (PICO).

☐ Achieved in Full = 21  ☐ Partially Achieved  ☐ Not Achieved

The participant will be able to locate evidence related to a practice question using the Internet and electronic databases.

☐ Achieved in Full = 19  ☐ Partially Achieved = 2  ☐ Not Achieved

The participant will be able to rank research and non-research evidence using the Johns Hopkins Nursing Evidence-Based Practice Model’s appraisal tools.

☐ Achieved in Full = 13  ☐ Partially Achieved = 7  ☐ Not Achieved

1 person did not answer the question

The participant will be able to describe the steps for evidence translation into practice based on synthesis of the best available evidence.

☐ Achieved in Full = 14  ☐ Partially Achieved = 6  ☐ Not Achieved

1 person did not answer the question
Syllabus outlined the next steps

**February 2014**
- Class held on 2/14/14
- 2/20/14 at 1500 Conference call
- Share EBP Bulletins with staff

**March**
- Complete article review s, put results on Appendix G (Individual Summary Table)
- Share EBP Bulletins

**April**
- Early April: regroup to discuss Appendix G findings, determine if consensus opinion reached
- Work with staff on pilot study EBP Bulletins

**April – June**
- Work with staff on pilot study EBP Bulletins
Ranking the evidence

Literature review group phone calls held

2 pre-assigned articles ranked per call
- 2/27/14
- 3/7/14
- 2/14/14
- 3/27/14

JHNEBPM Bulletins
Distributed electronically to educate unit staff during evidence review period
- 2/28/14 - 4/21/14

Mentored face-to-face synthesis of evidence with project planning meeting
- 4/3/14

Appendix G: Individual Evidence Summary Tool

<table>
<thead>
<tr>
<th>Article</th>
<th>Author / Year</th>
<th>Evidence Type</th>
<th>Sample, Sample Size and Setting</th>
<th>Limitations</th>
<th>Study Findings that Help Answer the EBP Question</th>
<th>Evidence Level and Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ahmed &amp; Wragg (2013)</td>
<td>Quality Improvement</td>
<td>405-bed suburban Midwestern for-profit tertiary care facility's neuro-medical unit</td>
<td>Only performed on one unit; inclusion criteria/patients eligible for survey must (a) ≥ 18 years at time of hospital admission</td>
<td>A teach-book method used to review/reinforce medication side-effect education may increase patient satisfaction and support nurses' assessment if gaps in patient's knowledge exist</td>
<td>SB</td>
</tr>
</tbody>
</table>

(Dearholt & Dang, 2012, Appendix G)
Consensus achieved; determined that the evidence was consistent and of good quality; therefore, a pilot project would be appropriate to pursue.
What is Evidence-Based Practice (EBP)?

Evidence-based practice (EBP) is “a problem-solving approach that integrates a systematic search for and critical appraisal of the most relevant evidence (may or may not be research based) to answer a clinical, education, or administrative question.” (Shirey et al, 2011, p. 61)

How does EBP differ from Quality Improvement and Research?

**Quality Improvement**

“Data-driven systematic approach by which individuals work together to improve specific internal systems, processes, costs, productivity, and quality outcomes within an organization.”

- Incorporates existing knowledge into process improvement activities
- Improves work-flow processes to enhance efficiencies and quality
- May address clinical/administrative/education problems
- Least rigorous, provides for lowest level of evidence

**Research**

“A scientific process that validates and refines existing knowledge and generates new knowledge that directly and indirectly influences nursing practice or health systems.”

- Research studies develop new knowledge that is generalizable (i.e., applicable) to a particular patient population or other clinical process or phenomenon under investigation
- Reinforces existing knowledge through the replication of a previous research study

Nurses seeking to establish an evidence-based practice (EBP) must first identify the issue of concern. This will help to shape a researchable question.

**Goals of EBP include**

- Improved patient interventions and quality outcomes
- Cost-effective care
- Reduced variations/consistency in nursing care delivery
- More efficient and effective decision-making
- Interprofessional practice: collaboration among practice groups

**Possible Problem Sources**

**Knowledge Focused**

- A new practice process emerges in the workplace
- New learning occurs from professional conference attendance or while reading current nursing or healthcare journals
- A philosophy of care promotes inquiry

**Problem Focused**

- Quality improvement issue has been identified
- Risk management data, patient safety driven
- Financial or outcomes benchmarking variances
- Recognition of a concerning clinical practice issue or trend
The 5 steps for evidence-based practice (EBP) implementation:

1. Ask a clinical question in the PICO format
2. Collect the most relevant and best evidence
3. Critically appraise the evidence
4. Integrate the best evidence with one’s clinical expertise, available resources, and patient preferences and values
5. After the decision is made to proceed, conduct a pilot project using the new practice/change in practice and then evaluate outcome(s) of interest

Elements of a PICO Question

- **P** Population, patient or problem
- **I** Intervention
- **C** Comparison (intervention or standard of care: comparisons are an optional component)
- **O** Outcome
- **T** Timeframe (may include timeframe as an optional component)

**PICO question formatting example:**

In *p* (the patient population/problem of interest), how effective is *i* (the intervention) versus *c* (the comparison) in obtaining *o* (the outcome)?
The Health Sciences Library makes your nursing research & practice life easier!

Our devoted librarians will:

- Work with you to develop a research topic, clinical question, and literature search strategies
- Help you navigate medical databases to find the best, most relevant research on your topic of interest
- Give you tools to organize and evaluate your research (e.g., RefWorks)
- Be amazingly helpful at every step of your research journey

Ask a Librarian
Find us on InovaNet
From home: www.inova.org/library
(703)776-3357 or e-mail library@inova.org
Once a comprehensive database search for evidence is completed using PICO question related keywords, all items retrieved are independently reviewed for applicability by at least two experienced EBP project leaders. Only the articles most closely related to the question of interest are selected by consensus opinion for review and ranking. A final full text list is then used by the EBP Team for review and ranking to identify the best available evidence to answer the PICO question.

**PICO Question**
- Identify keywords
- Librarian performs database search
- List of relevant abstracts generated, sent to EBP Leader

**EBP Leaders perform independent review of all abstracts retrieved**
- Review abstracts to narrow articles to those most relevant to patient population and question of interest
- Eliminate those that do not support the PICO question
- Compare/discuss opinion
- Consensus list sent to Librarian with request or full text article retrieval

**EBP Leaders perform independent review of full text articles requested**
- Review all articles to narrow down to those most relevant to patient population and question of interest
- Compare/discuss opinion
- Achieve consensus

**Final List compiled for EBP Team review**
- Full text articles given to EBP Team members for independent review and ranking
  - When insufficient evidence is found to address the PICO question, a gap is identified and informs the need for formal nursing research in the area of interest

**Individual Evidence Summary Table**
EBP Team members use JHNEBPM ranking tools to compile a summary table for EBP Team group comparison and consensus
Levels of Evidence

The ability to incorporate evidence-based nursing into clinical care requires a basic understanding of the main research designs underlying the published evidence.

Some research designs provide the strongest level of evidence based on their inherent characteristics.

While ideally the highest levels of evidence are desired to answer a PICO question, multiple randomized clinical trials (RCT) are frequently unavailable to guide nursing clinical practice decisions.

Lower levels of evidence are cautiously considered to guide clinical decision-making and often help to identify a need for more research to answer the question.
Evidence Synthesis and Recommendations

The second phase of the JHNEBPM PET process involves the search for, appraisal of, and synthesis of best available evidence.

- Once EBP Team members complete the Individual Evidence Summary Table, team members collectively discuss each piece of evidence to achieve a consensus rating.
- Team then numerically sums the sources of evidence that answer the PICO question, with totals recorded on the Synthesis and Recommendation Tool.

Relevant findings that answer the practice question are summarized for each level of evidence (i.e., Level I - Level V).

- Overall quality rating is determined and recorded for each level of evidence.

- Finally, through an objective and subjective consensus process, the EBP Team discusses and determines the overall strength and quality of the collected body of evidence by considering:
  - Level, quality, and consistency of findings across all pieces of evidence reviewed.
  - Applicability to population and setting.

Recommendations for practice change are based on evidence synthesis as follows:

- Strong, compelling evidence, consistent results
- Good evidence, consistent results
- Good evidence, conflicting results
- Insufficient or absent evidence

Evidence Translation

In this phase of the EBP process, recommendations identified in the evidence phase are evaluated for transferability (applicability) to the desired practice setting. If sufficient higher level evidence exists and the EBP Team agrees that it is appropriate to proceed, several steps follow:

- Determine fit, feasibility and appropriateness of recommendations for translation path
- Create an action plan
- Secure resources and stakeholder support needed to implement plan
- Implement an action plan (pilot project)
- Collect data, evaluate impact on/progress toward outcome(s) of interest
- Report outcomes to stakeholders
- Identify next steps
  - revise plan, or implement on wider scale if appropriate
- Disseminate findings
  - Internally; externally to advance body of evidence

(Poe & White, 2010, pp. 145-157)

**Evidence-Based Practice**
(Adapted from Dearholt & Dang, 2010, p. 4)

**The art of nursing recognizes that patients are active participants in their health care choices**
- Health is a quality of life best described by the person involved; allow for and respect patient autonomy
- Patient experience is a core component of a patient-centered approach to care
  - framed by personal, religious, cultural beliefs

**In order to incorporate patient preferences into evidence-based clinical decision making**
- Apply relevant evidence to care delivery
- Present best evidence treatment options to patient
- Give time for clarification, consideration of options
- Consider patient’s expressed concerns and preferences when planning care

(Poe & White, 2010, p. 139)
Unit pilot project kick-off event visits

Inova Mount Vernon Hospital Pilot Unit

Inova Alexandria Hospital Pilot Unit

PRACTICE QUESTION

Step 1: Recruit interprofessional team
Step 2: Develop and refine the EBP question
Step 3: Define the scope of the EBP question and identify stakeholders
Step 4: Determine responsibility for project leadership
Step 5: Schedule team meetings

EVIDENCE

Step 6: Conduct internal and external search for evidence
Step 7: Appraise the level and quality of each piece of evidence
Step 8: Summarize the individual evidence
Step 9: Synthesize overall strength and quality of evidence
Step 10: Develop recommendations for change based on evidence synthesis
  - Strong compelling evidence, consistent results
  - Good evidence, consistent results
  - Good evidence, conflicting results
  - Insufficient or absent evidence

TRANSLATION

Step 11: Determine fit, feasibility, and appropriateness of recommendation(s) for translation path
Step 12: Create action plan
Step 13: Secure support and resources to implement action plan
Step 14: Implement action plan
Step 15: Evaluate outcomes
Step 16: Report outcomes to stakeholders
Step 17: Identify next steps
Step 18: Disseminate findings

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Evidence–Based Practice Beliefs Scale (EBPB): The scale includes 16 items on a 5-point Likert scale with items ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores are indicative of more positive beliefs, lower scores represent less positive beliefs about EBP (Melnyk et al., 2008).

Example - “I believe that EBP results in the best clinical care for patients”

Scores increased for 11/16 items
Quantitative Research
Survey EBP- Intervention

- Evidence-Based Practice Implementation Scale (EBPI): This scale is designed to identify the frequency of use of EBP behaviors. The scale includes 18 items on 5-point frequency scale asking how often in the past 8 weeks he or she has performed an EBP activity; the scale ranges from 0 (0 times) to 4 (greater than 8 times).

- The higher score indicates higher frequency of EBP activity (Melnyk & Fineout-Overholt, 2003; Melnyk et al., 2008).

- Example “Promoted the use of EBP to my colleagues”

- Scores increased for 16/18 items
Qualitative Research

The focus groups provided rich data in terms learning more about the implementation of EBP on the pilot units and illustrating the successes and the challenges in implementing an Evidence Based Program.
Five themes emerged from the data.

- Learning and Applying EBP
- Achieving Success and Improvement
- Simplifying the Process
- Sustaining and Reinforcing Change
- Encountering Challenges and Barriers
Learning and Applying EBP

*That was my first time ranking and rating literature.*

Achieving Success and Improvement

*Better understanding from the patient. I had a patient who had CHF for years. And when I explained his medication, he said, “That’s the first time anybody ever told me that. I didn’t know why I was taking this medication.”*
Simplifying the Process

They want something easy that is going to help them do their job. Not something complicated.

Sustaining and Reinforcing Change

As long as we make this part of our daily practice I think it will be kept up.

Encountering Challenges and Barriers

But if you don’t use it, you are going to lose that skill.
What did we learn from this project

- Education Program
- Research Study
- Quality Improvement
References


Thank you!

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Questions?
EBP implementation
An important goal for nursing

http://www.youtube.com/watch?v=QUW0Q8tXVUc&feature=youtube