Building EBP and Wellness Cultures: A Necessity for Healthcare Quality & Safety

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THE Ohio State University
EBP Equals the Quadruple Aim in Healthcare

- Enhances the patient experience (includes quality)
- Improves population health
- Decreases costs
- Improves the work life of healthcare providers
In God We Trust,
Everyone Else Must
Bring Data!
The State of U.S. Healthcare and Health

- There are more than 250,000 unintended patient deaths per year from medical errors (3rd leading cause of death)
- Patients only receive about 55% of the care that they should when entering the healthcare system
- Poor quality healthcare costs the United States about 720 billion dollars every year
- The U.S. healthcare system could reduce its healthcare spending by 30% if patients receive EBP
- One in 2 Americans has a chronic condition and 1 in 4 have multiple chronic conditions
- One in 4 Americans, including children, have a mental health disorder
- Nurses have higher rates of chronic disease than physicians
What Will the Last 10 Years of YOUR Life Look Like?
Every day, we make behavioral choices that influence our health and wellness outcomes
Based on Evidence
What Do We Know?

People who have the following behaviors have 66% less diabetes, 45% less heart disease; 45% less back pain, 93% less depression, and 74% less stress

• **Physical activity**- 30 minutes 5 days per week
• **Healthy eating**- 5 fruits and vegetables per day
• **No smoking**
• **Alcohol in moderation**- 1 drink per day for women, 2 drinks per day for men
Hot Off the Press:
Medication Errors & Nurses’ Health

Proportion of nurses having medical errors in the last 5 years

% having medical errors

- Physical Health
- Mental Health
- BMI
- Total Cholesterol
- PHQ-2
- GAD-2
- PSS-4
- ProQOL

Low
High
Kaylin’s Story:
Australian Dream Trip Turned Nightmare

The Merging of Science and Art: EBP within a Context of Caring & EBP Culture and Environment Results in the Highest Quality of Patient Care

Context of Caring

- Research Evidence & Evidence-based Theories
- Clinical Expertise and Evidence from assessment of the patient’s history and condition as well as healthcare resources
- Patient Preferences and Values

Clinical Decision-making

EBP Culture & Environment

Quality Patient Outcomes

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Acting on the Evidence

• Strength of the Evidence + Quality of the Evidence = Confidence to Act!
Annual Guide to Clinical Preventive Services

- Evidence-based gold standard recommendations adapted for a pocket-sized book
- Formatted for clinicians to consult for clinical guidance in their daily practice
- Recommendations are presented in an indexed, easy-to-use format with at-a-glance charts
Patient Outcomes With and Without Evidence-Based Practice

![Bar chart showing outcomes comparison between traditional and evidence-based practice.]
The So What Factor in an Era of Healthcare Reform

- Conducting research and EBP projects with high impact potential to positively change healthcare systems, reduce costs and improve outcomes for patients and their families.

- Key questions when embarking on a research study or an EBP project:

  **So what** will be the end outcome of the study or EBP project once it is completed?

  **So what** difference will the study or EBP project make in improving healthcare quality, costs or patient outcomes?
Why Must We Accelerate EBP?

Despite an aggressive research movement, the majority of findings from research often are not integrated into practice to improve outcomes.

The gap between the translation of research into practice and policy is huge; it often takes decades to translate research findings into practice and policy.
COPE (Creating Opportunities for Parent Empowerment): An Evidence-Based Program to Improve Outcomes in Critically Ill/Hospitalized Young Children, LBW Premature Infants & Parents

FUNDING FOR THIS WORK BY THE NATIONAL INSTITUTE OF NURSING RESEARCH
R01#05077
NR05077-04S1
A 4 Day Shorter Length of Stay (LOS) for COPE Preterms Resulted in Cost Savings of $5000 per infant; 8 Day Shorter LOS for Preterms < 32 Weeks

*p < .05
Why Must We Accelerate EBP?

Practices routed in tradition are often outdated and do not lead to the best patient outcomes

- Daily changing of IV dressings
- Mayonnaise for head lice
- Sugar paste for pressure ulcers
- Albuterol delivery with nebulizers
- Checking placement of NG tubes with air
- Vital signs every 2 or 4 hours
- 12 Hour Shifts for Nurses
Why Must We Accelerate EBP?

- Tongue Patch for Weight Loss
The Steps of EBP

Step 0: Cultivate a Spirit of Inquiry & EBP Culture
Step 1: Ask the PICO(T) Question
Step 2: Search for the Best Evidence
Step 3: Critically Appraise the Evidence
Step 4: Integrate the Evidence with Your Clinical Expertise and Patient Preferences to Make the Best Clinical Decision
Step 5: Evaluate the Outcome(s) of the EBP Practice Change
Step 6: Disseminate the Outcome(s)
The EBP Process

Clinical Inquiry

Formulate a Searchable, Answerable Question (PICOT)

Search for the Best Evidence

Rapid Critical Appraisal, Evaluation, and Synthesis of Evidence

Integrate the Evidence with Clinical Expertise and Patient Preference(s)

Generate Evidence
- Internal: QI
- External: Research

Evaluate Outcomes based on Evidence

Disseminate the Outcome(s)

© Melnyk, Fineout-Overholt 2010
A Critical Step in EBP: The PICO(T) Question

Ask the burning clinical question in *PICO(T)* format

Patient population

Intervention or Interest area

Comparison intervention or group

Outcome

Time

In *adults with depression* (*P*), how does *CBT* (*I*) versus *interpersonal therapy* (*C*) affect *depressive symptoms* (*O*) *3 months after treatment* (*T*)?
Levels of Evidence

- Systematic review or meta-analysis of all relevant randomized controlled trials (RCTs),
- Evidence-based clinical practice guidelines based on systematic reviews of RCTs
- Evidence obtained from at least one well-designed RCT
- Evidence obtained from well-designed controlled trials without randomization and from well-designed case-control and cohort studies
- Evidence from systematic reviews of descriptive and qualitative studies
- Evidence from a single descriptive or qualitative study
- Evidence from the opinion of authorities and/or reports of expert committees

Usefulness for Cause & Effect Decision Making
Levels of... Chocolate

"Inspirational quotes are fine, but you’ll motivate more people with chocolate."

Modified from Julia Sollenberger, University of Rochester
Why Measure the Outcomes of EBP?

Outcomes reflect IMPACT!

**EBP’s effect on patients**
- Physiologic (complication reduction; health improvement)
- Psychosocial (quality of life; depressive and anxiety symptoms; patient satisfaction with care)
- Functional improvement

**EBP’s effect on the health system**
- Decreased cost, length of stay, rehospitalizations
- Nursing retention / job satisfaction
- Interdisciplinary collaboration
Findings from our EBP Survey with U.S. Nurses

Melnyk et al., 2012, JONA

- Over 1000 randomly sampled nurses from the American Nurses Association

- The more years in practice, the less nurses were interested in and felt it was important to gain more knowledge and skills in EBP
<table>
<thead>
<tr>
<th>Statement</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBP is consistently implemented in my healthcare system</td>
<td>53.6</td>
</tr>
<tr>
<td>My colleagues consistently implement EBP with their patients</td>
<td>34.5</td>
</tr>
<tr>
<td>Findings from research studies are consistently implemented in my institution to improve patient outcomes</td>
<td>46.4</td>
</tr>
<tr>
<td>EBP mentors are available in my healthcare system to help me with EBP</td>
<td>32.5</td>
</tr>
<tr>
<td>It is important for me to receive more education and skills building in EBP</td>
<td>76.2</td>
</tr>
</tbody>
</table>
## The One Thing That Prevents You From Implementing EBP

<table>
<thead>
<tr>
<th>Factor</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Time</td>
<td>151</td>
</tr>
<tr>
<td>2. Organizational culture, including policies and procedures, politics, and a philosophy of “that is the way we have always done it here.”</td>
<td>123</td>
</tr>
<tr>
<td>3. Lack of EBP knowledge/education</td>
<td>61</td>
</tr>
<tr>
<td>4. Lack of access to evidence/information</td>
<td>55</td>
</tr>
<tr>
<td><strong>5. Manager/leader resistance</strong></td>
<td>51</td>
</tr>
<tr>
<td>6. Workload/staffing, including patient ratios</td>
<td>48</td>
</tr>
<tr>
<td>7. Nursing (staff) resistance</td>
<td>46</td>
</tr>
<tr>
<td>8. Physician resistance</td>
<td>34</td>
</tr>
<tr>
<td>9. Budget/payors</td>
<td>24</td>
</tr>
<tr>
<td>10. Lack of resources</td>
<td>20</td>
</tr>
</tbody>
</table>
The National Chief Nurse Survey
Melnyk et al., 2016, Worldviews on Evidence-based Nursing

- 93% currently in the CNO role
- Ages ranged from 32-68 (M= 55 years)
- Years in practice ranged from 8-47 (M=31 years)
- Years as a CNO ranged from <1- 32 (M= 9 years)
- 92% female; 94% White
- 6% bachelor’s degree; 69% master’s degree;
- 8% PhD prepared; 10% DNP prepared
- 45 States and DC represented
- 18% work in Magnet facilities
- 55% reported having clinical ladder systems
- 47% had no ongoing nursing research projects
EBP Priorities

How much do you believe implementation of EBP improves quality & patient outcomes?
CNOs EBP Beliefs

I am sure about how to measure the outcomes of services provided to patients

1 = Strongly Disagree
2 = Neither Agree/Disagree
3 = Strongly Agree

Percentage distribution: 5% Strongly Disagree, 25% Neither Agree/Disagree, 30% Strongly Agree.
Organizational Readiness

In your organization, to what extent is there a critical mass of nurses who have strong EBP knowledge & skills?
As a CNO/CNE, what are the top priorities that you are currently focused on in your role?
### Organization Related Questions

<table>
<thead>
<tr>
<th>What % of your annual operating budget do you spend on building and sustaining EBP in your organization?</th>
<th>Frequency</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>41</td>
<td>15%</td>
</tr>
<tr>
<td>1 to 10</td>
<td>162</td>
<td>59%</td>
</tr>
<tr>
<td>11 to 25</td>
<td>49</td>
<td>18%</td>
</tr>
<tr>
<td>26 to 50</td>
<td>15</td>
<td>5%</td>
</tr>
<tr>
<td>51 to 100</td>
<td>6</td>
<td>2%</td>
</tr>
</tbody>
</table>
Performance Metrics

NDNQI Metrics

- Falls
- Falls with Injury
- Pressure Ulcers
- Pressure Ulcers (Stage 2 and above)
- Restraints
- Nursing Care Hours
- RN Education
- RN Certification

Legend:
- Below benchmark
- At benchmark
- Exceeding benchmark
Catheter Associated Urinary Tract Infections
Pressure Ulcers (Stage 3 and 4)
Vascular Catheter Associated Infections
Falls and Trauma
Manifestations of Poor Glycemic Control

Performance Metrics
Core Measures

- Below National Rate
- Same as National Rate
- Above National Rate
Creating a Culture and Environment to Sustain EBP

What Works

Remember,
Culture Eats Strategy!
The only person that likes a change is a baby with a wet diaper!
An Essential Element Required for a Successful Change to System-wide EBP

A Vision with Specific Written Goals

We must begin with the end in mind
SHOCK!

“You are asking me to implement EBP on top of everything else that I do?”
Stressed!
Change Fatigue
Critical Components of an EBP Culture

A Philosophy, Mission and Commitment to EBP:
• there must be commitment to advance EBP across the organization as evidenced in orientation, clinical ladders, evaluations

A Spirit of Inquiry:
• health professionals are encouraged to continuously ask questions, review and analyze practices to improve patient outcomes

EBP Mentors:
• who have in depth knowledge and skills in EBP, mentoring others, and overcoming barriers to individual and organizational change
Critical Components of an EBP Culture

Administrative Role
Modeling and Support:
• leaders who value and model EBP as well as provide the needed resources to sustain it

Infrastructure:
• tools and resources that enhance EBP across the organization; computers for searching, up to date data bases, library resources

Recognition:
• individuals and units are rewarded regularly for EBP
EBP Competencies for Practicing Nurses and Advanced Practice Nurses

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, CNPN/PMHNP, FAANP, FNAP, FANN
Lynn Gallagher-Ford, RN, PhD, DPFNAP, NE-BC
Lisa English Long, RN, MSN, CNS
Ellen Fineout-Overholt, RN, PhD, FAAN

2014
Return on Investment with EBP

• It is critical to establish ROI with EBP
• ROI helps with sustainability of EBP
• We must measure quality indicators
Melnyk & Fineout-Overholt’s ARCC (Advancing Research and Clinical practice through close Collaboration) Model

Potential Strengths
- Philosophy of EBP (paradigm is system-wide)
- Presence of EBP Mentors & Champions
- Administrative Support

↑ Clinicians’ Beliefs About the Value of EBP & Ability to Implement the EBP Process *

↑ EBP Implementation*+

↑ Nurse Satisfaction
↑ Cohesion
↓ Intent to Leave
↓ Turnover

Assessment of Organizational Culture & Readiness for EBP*

Identification of Strengths & Major Barriers to EBP Implementation

Development & Use of EBP Mentors

Implementation of ARCC Strategies

Interactive EBP Skills Building

EBP Rounds & Journal Clubs

Decreased Hospital Costs

Improved Patient Outcomes

* Scale Developed
+ Based on the EBP Paradigm & using the EBP process

Potential Barriers
- Lack of EBP Mentors & Champions
- Inadequate EBP Knowledge & Skills
- Lack of EBP Valuing

© Melnyk & Fineout-Overholt, 2005
Evidence to Support ARCC

- **Study #1**: Descriptive correlational study with 160 nurses
- **Study #2**: A psychometric study of the EBP beliefs and EBP implementation scales with 360 nurses
- **Study #3**: A randomized controlled pilot study with 47 nurses in the VNS
- **Study #4**: A quasi-experimental study with 159 nurses in a clinical research medical center environment
- **Study #5**: A pre-experimental study with 52 clinicians at WHHS
Outcomes of Implementing the ARCC Model at Washington Hospital Healthcare System

- Early ambulation in the ICU resulted in a reduction in ventilator days from 11.6 to 8.9 days and no VAP
- Pressure ulcer rates were reduced from 6.07% to .62% on a medical-surgical unit
- Education of CHF patients led to a 14.7% reduction in hospital readmissions
- 75% of parents perceived the overall quality of care as excellent after implementation of family centered care compared to 22.2% pre-implementation

(In press, *Worldviews on Evidence-based Nursing*)
The simple provision of resources and dissemination of information alone will not lead to uptake of EBP.

A multi-component active strategy is necessary, including behavior and organizational culture change strategies.
Coming Soon

- The Helene Fuld Health Trust National Institute for Evidence-based Practice in Nursing & Healthcare at The Ohio State College of Nursing

- Submit an application for the first National EBP Challenge

- First National Summit on Transforming Healthcare through EBP: October 18-20, 2017, Columbus
EBP is in the DNA of every practicing clinician and educator

100% of healthcare decisions are evidence-based

Reimbursement is only provided for EBP

There is no time lag between the generation of research findings and their implementation in practice to improve care and outcomes
What Will It Take to Achieve the Vision?

- Slaying of many sacred cows!
- An interprofessional team dream, belief, risk-taking and persistence through the “character-builders!”
- A sense of urgency; the time is NOW!
- Professors and clinical educators who have the knowledge and skills to teach EBP as people can not teach what they themselves do not know
- Investment in building cultures and environments of EBP, including critical masses of EBP mentors
- Integration of the new EBP competencies as standard of care
Diffusion of Innovation

- Innovators: 2.5%
- Early Adopters: 13.5%
- Early Majority: 34%
- Late Majority: 34%
- Laggards: 16%

Culture shift
A key ingredient for success is persistence as there will be many “character-building” experiences along the way!!

“At least I have found 9000 ways that it won’t work.”

Thomas Edison
Worldviews on Evidence-Based Nursing™

Linking Evidence to Action

Editor
Bernadette Melnyk, PhD, CNPN/PMHNP, FAANP, FAAN

✓ Gives readers methods to apply best evidence to practice

✓ Global coverage of practice, policy, education and management

✓ From a source you can trust, the Honor Society of Nursing, Sigma Theta Tau International

www.blackwellpublishing.com/wvn
Implementing and Sustaining EBP in Real World Healthcare Settings Column in Worldviews: Ideal for Publishing EBP Implementation Projects

**Implementing EBP Column**

Implementing and Sustaining EBP in Real World Healthcare Settings: A Leader’s Role in Creating a Strong Context for EBP

Lynn Gallagher-Ford, RN, PhD, DPNAP, NEA-BC
Column Editor for "Implementing and Sustaining EBP in Real World Healthcare Settings"

This column shares the best evidence-based strategies and innovative ideas on how to promote and sustain evidence-based practices and cultures in clinical organizations. Guidelines for submission are available at https://onlinelibrary.wiley.com/journal/10.1111/vhs.14118

**INTRODUCTION**

A growing body of research has emerged related to moving beyond the barriers to evidence-based practice (EBP) toward implementing strategies to successfully implement and sustain EBP in organizations (McEwan, 2005). Through this work, the concept of organizational context has emerged as critical to success. EBP-based practice has been defined as "a specific environment in which implementation, adoption, and creation of evidence may take place" (McEwan et al., 2005, p. 5) and has been described as including three characteristics: organizational culture, leadership, and measurement or evaluation. More recently, Dugdale et al. (2007) defined contextual factors as low levels of individual, environmental, organizational, and cultural "influence factors of evidence-based practice in real situations at the point-of-care" (p. 123).

Researchers have identified aspects of context supportive to implementation of EBP, including creation of a culture where EBP is valued and expected, enhanced dialogue between administration and staff to promote and apprehend opportunities for collaboration are encouraged (McEwan at al., 2005). Additionally, development of nurse leadership skills, availability of resources, including access to EBP resources (MacDermid, 2007), and adequate staffing and time to review and implement evidence are critical (Welsh, 2007). McEwan et al. (2007a) argued that developing nursing skills to negotiate organizational transformation is important to successful integration of evidence into nursing practice (Welsh, 2007).

**DESCRIPTION OF THE STRATEGIES AND OUTCOMES**

The framework begins with one nursing leader following that an EBP-based approach was possible and taking steps to make it real. First steps included acquisition of EBP knowledge and skills, which were empowering and built confidence in the leader. Next steps involved development of an EBP team with a variety of stakeholders to help shape and design an EBP approach. The leadership team then established policies and procedures to support EBP implementation, including development of a comprehensive EBP plan. Finally, the EBP project was monitored and evaluated to assess its impact on patient outcomes and organizational culture.

**BACKGROUND**

A community hospital with progressive nursing leadership set out to educate and implement evidence-based practice. One key strategy was to provide education opportunities for nurses and improve the communication between nurses and other healthcare professionals. The implementation of EBP was seen as a way to improve patient outcomes, increase nursing satisfaction, and reduce healthcare costs. The EBP team focused on identifying evidence-based practices that could be implemented in the clinical setting.

**Leveraging Shared Governance Councils to Advance Evidence-Based Practice: The EBP Council Journey**

Lynn Gallagher-Ford, RN, PhD, DPNAP, NEA-BC

This column shares the best evidence-based strategies and innovative ideas on how to promote and sustain evidence-based practices and cultures in clinical organizations. Guidelines for submission are available at https://onlinelibrary.wiley.com/journal/10.1111/vhs.14118

**THE PROCESS OF COUNCIL FORMATION**

The formation of councils began with the development of a strategic plan for the organization. An EBP project committee was established to provide guidance and oversight for the implementation of evidence-based practice initiatives. The committee included nurses, physicians, and other healthcare professionals. Its primary goal was to develop a comprehensive plan to support the implementation of evidence-based practices across the organization.

**CONCLUSION**

The implementation of evidence-based practice initiatives was successful in improving patient outcomes, increasing nursing satisfaction, and reducing healthcare costs. The committees continued to meet regularly to review and update the evidence-based practice initiatives. The success of these initiatives highlighted the importance of involving nurses and other healthcare professionals in the development and implementation of evidence-based practice initiatives.
Ask yourself:

• What will you do if you know you cannot fail in the next 2 to 5 years?

• What is the smallest EBP change that you can make tomorrow that would have the largest positive impact for your patients’ outcomes?
“...because we’ve always done it that way.”
Greatest Hitter in the World
Nothing Happens Unless First a Dream!

Carl Sandburg
The Next 2-5 Years

What can we do together in the next 2 to 5 years if we know that we cannot fail?

Let’s shoot for the moon, even if we miss, we will land amongst the stars

-Thought Brown

There Is A Magic In Thinking Big!
Contact Information

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