Creating a Culture of Evidence-based Practice and Well-being:
The Secret Sauce for Reaching the Quadruple Aim in Healthcare

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The Quadruple Aim in Healthcare

- Enhance the patient experience (includes quality)
- Improve population health
- Decrease costs
- Improve the work life of healthcare providers

Current State of Health in Nurses

U.S. Physicians Set Good Health Example
Physicians in better health than nurses and employed adult population

by Katie Bass and Kyley McGeeney
October 3, 2012 see:
Data based on 1,984 physicians and 7,166 nurses, conducted Jan. 2, 2011 to Aug. 31, 2012.
State of Health in Nurses in 2012

A National Study Links Nurses’ Physical and Mental Health to Medical Errors and Perceived Worksite Wellness (N=1790)

Health Status by Perceived Wellness Support & Stress at Workplace
From Melnyk et al., 2018, Journal of Occupational and Environmental Medicine

**Percent of Nurses with Poor and Good Health with Medical Errors**

Error and Shift Work

Errors and Shift Work

How can we protect the health of the people who protect our own?

![Image](image.png)

**Percent of Nurses with Poor and Good Health with Medical Errors**

Proportion of nurses having medical errors in the last 5 years (based on 750 nurses reporting having medical errors)

<table>
<thead>
<tr>
<th>Year</th>
<th>Low</th>
<th>High</th>
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<tbody>
<tr>
<td>2018</td>
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<tr>
<td>2017</td>
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<tr>
<td>2008</td>
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**Errors and Shift Work**

Medical errors in the last 5 years

- <8 hrs: 0%
- 8 hrs: 4%
- 8-12 hrs: 12%
- 12+ hrs: 24%

**How can we protect the health of the people who protect our own?**

- National Academy of Medicine
- Action Collaborative on Clinician Well-Being and Resilience

Learn more at naom.edu/clinicianwellbeing
Great Resource

http://nam.edu/clinicianwellbeing/

Considering All Causes of Morbidity and Mortality, Behaviors are the #1 Killer of Americans

What will the last 10 years of YOUR life look like?
We Make Behavioral Choices Every Day

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

Getting 7 hours of sleep and regularly engaging in stress reduction will result in even greater reductions in chronic disease.

Not the Size of Alcoholic Beverages in Vegas!
Percent of adults who engage in the 5 leading health behaviors that can reduce the risk of chronic disease. Nearly 83% of health-care spending could be cut if more people employed:

- Not Smoking
- Exercising regularly
- Avoiding alcohol or drink in moderation
- Maintaining a healthy body weight
- Getting sufficient sleep

CDC, 2016

**Contributors to Premature Death**

- Behavioral Patterns 40%
- Genetic Predisposition 30%
- Social Circumstances 15%
- Environmental Exposure 5%
- Health Care 10%

**New Year’s Resolutions for 2007**
- Lose weight again
- Get fit next year
- Give up smoking
- Find job
- Stand up to boss
- Be nicer to my wife
- Sort out junk in shed
The Merging of Science and Art: EBP within a Context of Caring & EBP Culture and Environment Results in the Highest Quality of Patient Care

Clinical Decision-making

Quality Patient Outcomes

Clinical Expertise and Evidence from assessment of the patient’s history and condition as well as healthcare resources

Research Evidence & Evidence-based Theories

EBP Culture & Environment

Patient Preferences and Values

© Melnyk & Fineout-Overholt, 2003

Kaylin’s Story:
Australian Dream Trip Turned Nightmare


Acting on the Evidence
Strength of the Evidence + Quality of the Evidence = Confidence to Act!
Patient Outcomes With and Without Evidence-Based Practice

![Graph showing traditional practice vs. evidence-based practice 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.

The So What Outcomes 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? Measuring ROI is important!
  - So what will I measure as outcomes that will help scale the findings when the project is complete?
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

Why Must We Accelerate EBP?

Tongue Patch for Weight Loss
The Steps of EBP

- Cultivate a Spirit of Inquiry & EBP Culture
- Ask the PICO(T) Question
- Search for the Best Evidence
- Critically Appraise the Evidence
- Integrate the Evidence with Your Clinical Expertise and Patient Preferences to Make the Best Clinical Decision
- Evaluate the Outcome(s) of the EBP Practice Change
- 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 or External Research

Evaluate Outcomes based on Evidence

Disseminate the Outcome(s)

Findings from our EBP Survey with U.S. Nurses

- 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

Melnyk et al., 2012, JONA
The One Thing That Prevents You From Implementing EBP

<table>
<thead>
<tr>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Time</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>
</tr>
<tr>
<td>3. Lack of EBP knowledge/education</td>
</tr>
<tr>
<td>4. Lack of access to evidence/information</td>
</tr>
<tr>
<td>5. Manager/leader resistance</td>
</tr>
<tr>
<td>6. Workload/Staffing, including patient ratios</td>
</tr>
<tr>
<td>7. Nursing Staff resistance</td>
</tr>
<tr>
<td>8. Physician resistance</td>
</tr>
<tr>
<td>9. Budget/Supplies</td>
</tr>
<tr>
<td>10. Lack of resources</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 important is it for you to build & sustain a culture of EBP?
- How important is it for your organization to build & sustain a culture of EBP?
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

Organizational Readiness

In your organization, to what extent is there a critical mass of nurses who have strong EBP knowledge & skills?

1 = Not at all  2 = Somewhat  3 = Very Much

Top Priorities

As a CNO/CNE, what are the top priorities that you are currently focused on in your role?
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

2014

Bernadette Mazurek Melnyk, RN, PhD, CNPN/PMHNP, FAAN, FNAP, FANN
Lynn Gallagher-Ford, RN, PhD, DPNAP, NE-BC
Lisa English Long, RN, MSN, CNS
Ellen Fineout-Overholt, RN, PhD, FAAN

Aims:
- describe the state of EBP competency in nurses across the U.S.
- determine important factors associated with EBP competency

Methods:
- Cross sectional anonymous descriptive survey with nurses across the U.S.

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

The First U.S. Study on Nurses’ EBP Competencies Indicates Major Deficits that Threaten Healthcare Quality, Safety and Patient Outcomes

Performance Metrics
Core Measures

EBP Competencies for Practicing Nurses and Advanced Practice Nurses
Correlations among EBP Competency and EBP Culture, Knowledge, Beliefs and EBP Mentoring

<table>
<thead>
<tr>
<th></th>
<th>Competency</th>
<th>Culture</th>
<th>Knowledge</th>
<th>Beliefs</th>
<th>Mentoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td>80.2 (21.9)</td>
<td>0.29</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Knowledge</td>
<td>19.5 (7.0)</td>
<td>0.43</td>
<td>0.28</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Beliefs</td>
<td>56.7 (8.5)</td>
<td>0.66</td>
<td>0.47</td>
<td>0.42</td>
<td>-</td>
</tr>
<tr>
<td>Mentoring</td>
<td>21.4 (10.9)</td>
<td>0.69</td>
<td>0.69</td>
<td>0.24</td>
<td>0.47</td>
</tr>
</tbody>
</table>

P < 0.001 for all the Pearson correlation coefficients

State of Self-reported EBP Competencies by Nurses Across the United States (N = 2075)

Making Use of the Competencies

The new EBP competencies should be integrated into healthcare system orientation programs, clinical ladders, and performance appraisals.

Incorporating the competencies into real world practice and academic settings will assist healthcare systems in improving quality, safety, and patient outcomes as well as reducing costs!
Creating a Culture and Environment to Sustain EBP and Healthy Work Environments

What Works
Remember, Culture Eats Strategy!

The only person that likes a change is a baby with a wet diaper!

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 continually ask questions, review and analyze practice to improve patient outcomes

EBP Mentors:
• Individuals with 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 facilitate EBP across the organization, e.g., searching, up-to-date databases, library resources

Recognition:
- Individuals and units are rewarded regularly for EBP

The ARCC© (Advancing Research and Clinical practice through close Collaboration) Model

Potential Strengths:
- Philosophy of EBP (paradigm is system-wide)
- Presence of EBP Mentors & Champions
- Administrator/Leader Support  EBP knowledge*  Beliefs about the Value of EBP & Ability to Implement the EBP Process*
- EBP Implementation* + Decreased Healthcare System Costs

Potential Barriers:
- Lack of EBP Mentors & Champions
- Inadequate EBP Knowledge & Skills
- Low Beliefs about the Value of EBP & the Ability to Implement it

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

© Melnyk & Fineout-Overholt 2005; Revised, 2017
ARCC© = Advancing Research & Clinical practice through close Collaboration

Assessment of Organizational Culture & Readiness for EBP*

Identification of Strengths & Major Barriers to EBP Implementation

Use of EBP Mentors; Perceived EBP Mentorship*

Higher Quality Healthcare and Improved Patient Outcomes
 Job Satisfaction
 Group Cohesion
 Intent to Leave
 Turnover

Melnyk et al., 2017, Worldviews on Evidence-based Nursing
EBP Competencies after ARCC Implementation:
Memorial Sloan Kettering vs. the National Study Data

1. Questions practice 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 PICO/T format
4. Searches for external evidence
5. Participates in critical appraisal of pre-appraised evidence
6. Participates in critical appraisal of published research studies
7. Participates in the evaluation and synthesis of a body of evidence
8. Collects practice data systematically as internal evidence
9. Integrates evidence from internal and external sources to plan EB practice changes
10. Implements practice changes based on evidence, expertise and pt. preferences
11. Evaluates outcomes of EB practice changes
12. Disseminates best practices supported by evidence
13. Participates in activities to sustain an EB culture

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

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, APN-BC, FAAN, FNAP, 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

https://onlinelibrary.wiley.com/journal/17416787

Ask yourself:
• What will you do if you know you can not 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.”
Nothing Happens Unless First a Dream!

Carl Sandburg

The Helene Fuld Health Trust National Institute for EBP in Nursing & Healthcare took 10+ years for the dream to become reality

- Inaugural Fuld National Expert Forum and Summit October 18-20, 2017
- Recommendations just published in Worldviews on Evidence-based Nursing

See [https://fuld.nursing.osu.edu/](https://fuld.nursing.osu.edu/)

- Fuld EBP Summit, November 21 & 22, 2019
- EBP Certificate Approval by the Accreditation Board for Specialty Nurse Certification (First Accredited Certificate of Added Qualification in EBP)
The Next 2-5 Years

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

Shoot for the moon, even if you miss, you will land amongst the stars

-Les Brown

There Is A Magic In Thinking Big!

Dream, Discover and Deliver
Just “Do It!”
Final Motivational Words

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