Building and Sustaining an Evidence-Based Practice Culture and Environment: A Key Strategy for Nurse Leaders to Reach the Triple Aim in Healthcare

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In God We Trust, Everyone Else Must Bring Data!

The State of U.S. Healthcare and Health

- There are up to 200,000 unintended patient deaths per year (more than auto accidents & breast cancer)
- 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 evidence-based healthcare
- One in 2 Americans have a chronic condition and 1 in 4 have multiple chronic conditions
- One in 4 Americans have a mental health disorder

Current State of Health in Nurses

<table>
<thead>
<tr>
<th>Chronic Health Problems Among Physicians, Nurses, and Other Workers</th>
<th>Physicians</th>
<th>Nurses</th>
<th>Other workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Obesity</td>
<td>13</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>% High Blood Pressure</td>
<td>16</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>% High Cholesterol</td>
<td>21</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>% Diabetes</td>
<td>4</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>% Depression</td>
<td>7</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>% Heart Attack</td>
<td>9</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>% Asthma</td>
<td>9</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>% Cancer</td>
<td>6</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

HISTORY of the ATHLETE PROGRAM

- Sports
- Law Enforcement
- Medicine
- Business
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

Only 20 Minutes of Physical Activity Improves Brain Circulation and Functioning

Kaylin’s Story:
Australian Dream Trip Turned Nightmare

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

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

Reducing NICU Length of Stay, Hospital Costs and Readmission Rates with COPE for Parents of Preterms

Bernadette Mazurek Melnyk, PhD, RN, CPNP/PMHNP, FAANP, FNAP, FAAN
FUNDING FOR THIS WORK BY THE NATIONAL INSTITUTE OF NURSING RESEARCH R01#05077 NR05077-04S1
COPE (Creating Opportunities for Parent Empowerment): An Evidence-Based Program to Improve Outcomes in Critically Ill/Hospitalized Young Children, LBW Premature Infants & Parents

The COPE NICU Program

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?

- 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?

- A high JASPA score
  (Journal of Associated Score of Personal Angst)
  J: Are you ambivalent about renewing your journal subscriptions?
  A: Do you feel Anger toward prolific authors?
  S: Do you ever use journals to help you Sleep?
  P: Are you surrounded by piles of Periodicals?
  A: Do you feel Anxious when your journals arrive?

Modified from BMJ (1995), 311, 166-1668

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) |

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 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

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>Percent of Respondents from the ANA Survey Who Agreed or Strongly Agreed with the Following Statements</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

A National Survey of Chief Nurse Executives

Stay Tuned for the Results

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

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?
SHOCK!
“You are asking me to implement EBP on top of everything else that I do?”

Stressed!

Change Fatigue

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
Creating a Culture and Environment to Sustain EBP

What Works

An EBP culture means…
EBP is in the organizational DNA.
EBP is the foundation of how each clinician and the organization functions on every level.

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 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 2014

Download free at:

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Lisa English Long, RN, MSN, CNS
Ellen Fineout-Overholt, RN, PhD, FAAN
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 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

Diffusion of Innovation

Early Adopters 13.5%
Early Majority 34%
Late Majority 34%
Laggards 16%

Innovators 2.5%
Culture shift

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

American Journal of Nursing

- Evidence-Based Practice, Step by Step: 10-part series
- Articles appeared every other month
- Periodic “Ask the Authors” call-ins – See www.ajnonline.com

“...because we’ve always done it that way.”

Anonymous
Greatest Hitter in the World

Nothing Happens Unless First a Dream!
Carl Sandburg

The Next 2-3 Years
What will you do in the next 2 to 5 years if you know that you can not fail?
Shoot for the moon, even if you miss, you will hit the stars
-Les Brown
There Is A Magic In Thinking Big!

It’s Time to Move and Dance Around the World with Matt to Boost our Energy for Part 2

Dancing

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