Improving Healthcare Quality, Safety, Patient Outcomes and Costs with Evidence-based Practice

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In God We Trust, Everyone Else Must Bring Data!

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The State of Healthcare

- 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

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Kaylin's Story:Australian Dream Trip Turned Nightmare



From Melnyk, B.M., & Fineout-Overholt, E. (2011). Implementing EBP: Real World Success Stories

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Nurse Athlete/Health Athlete

A Key Strategy for Enhancing Engagement, Reducing Stress, Fatigue and Burnout



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Current State of Health in Nurses Chronic Health Problems Among Physicians, Nurses, and Other Workers Physicians 25 % High Blood Pressure % High Cholesterol % Diabetes % Depression % Heart Attack % Asthma 10 % Cancer Gallup-Healthways Well-Being Index GALLUP' Transforming health, Transforming lives

Many Nurses are Practicing in a Coma of Complacency "Follow me. this way's always safe!"

COMPLACENCY

Every day, we make behavioral choices that influence our health and wellness outcomes



Research Supports 4 Behaviors that Extend the Quantity and Quality of our Lives

1. Do not Smoke

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- 2. Eat 5 fruits and vegetables every day
- Engage in 30 minutes of physical activity 5 days per week
- 4. If you drink alcohol, drink in moderation, which is: drink a day for women; 2 drinks a day for men



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What is Evidence?

- A collection of facts that grounds one's belief that something is true (Dictionary.com 2007)
- External versus internal evidence
 - External evidence: generated from rigorous research
 - **Internal evidence:** generated from outcomes management; practice based evidence
- Does the evidence that is generated through rigorous research still hold when translated to the real world?

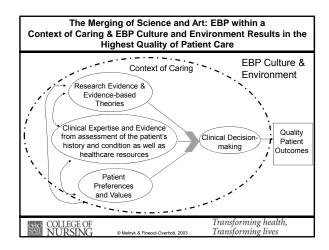
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Evidence-Based Practice

Evidence-based practice (EBP) is a problem solving approach to clinical practice that integrates the conscientious use of best evidence in combination with a clinician's expertise as well as patient preferences and values to make decisions about the type of care that is provided. Resources must be considered in the decision-making process as well.

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• Strength of the Evidence + Quality of the Evidence = Confidence to Act!

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The IOM Roundtable on EBM

 Formed in response to the 2003 IOM's Committee on the Health Professions Education Summit recommendation that

All healthcare professionals will be educated to deliver patient-centric care as members of an inter-disciplinary team, *emphasizing EBP*, quality improvement approaches and informatics

 Ninety percent of healthcare decisions will be evidence-based by 2020

- The IOM Roundtable on EBP

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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 ata-glance charts



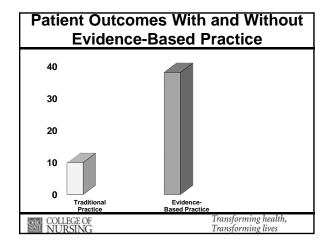
The Guide to Clinical Preventive Services 2012

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Why Must We Accelerate Evidence-Based Practice in Healthcare Providers and Systems Across the U.S?

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Why Must We Accelerate EBP?

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

• It often takes decades to translate research findings into practice

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Why Must We Accelerate EBP?

• A high JASPA score

(Journal of Associated Score of Personal Angst)

- J: Are you ambivalent about renewing your <u>J</u>ournal 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

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



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Why Must We Accelerate EBP?

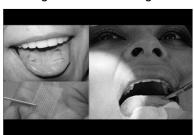
- Practices routed in tradition are often outdated and do not lead to the best patient outcomes.
 - Daily changing of IV dressings
 - ❖ Perineal shaves before child birth
 - ❖ Mayonnaise for head lice
 - ❖ Sugar paste for pressure ulcers
 - * Albuterol delivery with nebulizers

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Why Must We Accelerate EBP?

Tongue Patch for Weight Loss



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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)

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A Critical Step in EBP: The PICO(T) Question

Ask the burning clinical question in $\underline{PICO(T)}$ format

Patient population

Intervention or Interest area

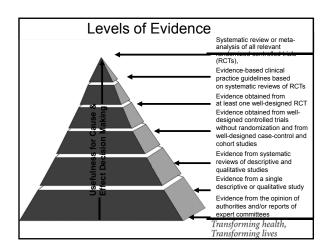
Comparison intervention or group

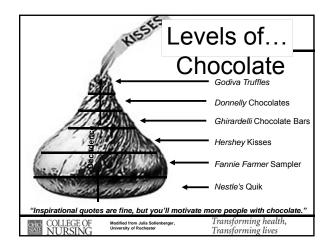
<u>O</u>utcome

<u>T</u>ime

In preoperative patients (P), how does scalp shaving (I) versus no scalp shaving (C) affect postoperative infection (O) during the first postoperative week (T)?







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
 - Nursing retention / job satisfaction
 - Interdisciplinary collaboration

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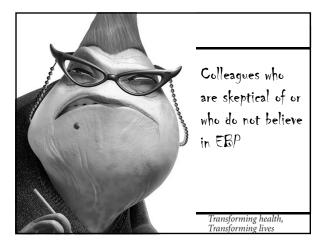
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Major Barriers to the Advancement of EBP

- Lack of knowledge and skills
- Low comfort level with search techniques
- Perceived lack of time
- · Challenges with critically appraising research
- · Lack of organizational/administrative support
- Educational programs that continue to teach research the "traditional way" with a focus on producing instead of using evidence
- · Negative attitudes toward research



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Findings from our Recent EBP Survey with U.S. Nurses

(Melnyk et al., 2012, JONA)

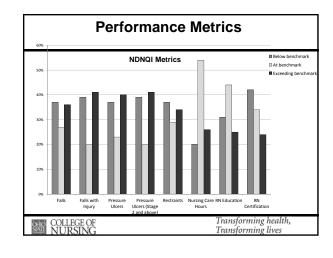
- More highly educated nurses reported being more clear about the steps in EBP and having more confidence implementing evidence-based care
- The more years in practice, the less nurses were interested in and felt it was important to gain more knowledge and skills in EBP

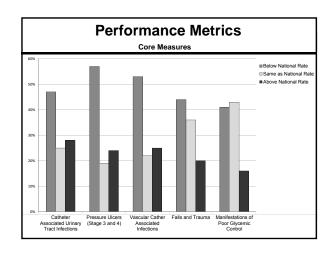
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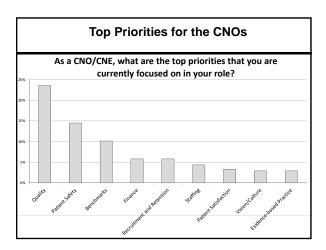
	%
EBP is consistently implemented in my healthcare system	53.6
My colleagues consistently implement EBP with their patients	34.5
Findings from research studies are consistently implemented in my institution to improve patient outcomes	46.4
EBP mentors are available in my healthcare system to help me with EBP	32.5
It is important for me to receive more education and skills building in EBP	76.2

You From Implementing EBP		
	Total Responses	
1. Time	151	
Organizational culture, including policies and procedures, politics, and a philosophy of "that is the way we have always done it here."	123	
3. Lack of EBP knowledge/education	61	
4. Lack of access to evidence/information	55	
5. Manager/leader resistance	51	
6. Workload/staffing, including patient ratios	48	
7. Nursing (staff) resistance	46	
8. Physician resistance	34	
9. Budget/payors	24	
10. Lack of resources	20	

Our Recent Survey of CNOs from 276 Hospitals in 45 States across the U.S.			
What % of your annual operating budget do you spend on building and sustaining EBP in your organization?	Frequency	Percent %	
0	41	15%	
1 to 10	162	59%	
11 to 25	49	18%	
26 to 50	15	5%	
51 to 100	6	2%	
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Summary of Findings

- 30 to 40% of hospitals are not meeting benchmarks for NDNQI performance metrics
- 20 to 30% of hospitals are above national benchmarks for core measures (e.g., falls, pressure ulcers)
- Although CNOs believe EBP results in higher quality of care, safety and improved patient outcomes, very little of their budgets are allocated to EBP and EBP is listed as a low priority; there is a disconnect!
- Although CNOs reported top priorities are quality and safety, EBP is rated as a low priority



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Summary of Findings

- Although CNOs beliefs in the value of EBP are strong, there own implementation of EBP is relatively low
- Approximately 55% of CNOs believe that EBP is practiced in their organization from "not at all" to "somewhat"
- There are inadequate numbers of EBP mentors in healthcare systems to work on EBP with direct care staff and create EBP cultures/environments that sustain



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Evidence-Based Facilitators of EBP

- Individual knowledge and skills of EBP
- Beliefs that EBP improves care and outcomes
- · Beliefs in the ability to implement EBP
- · Mentors who are skilled in EBP
- Administrative/organizational support, including executives/managers that model and encourage EBP



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Facilitators Champions, mentors a nurse executives/mana

Champions, mentors and nurse executives/managers who are passionate about EBP

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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



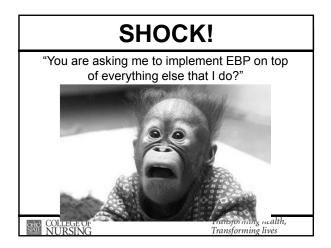
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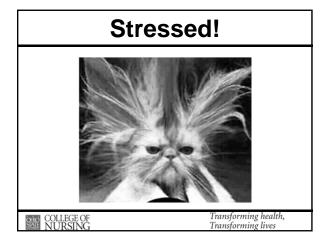
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Ask yourself:

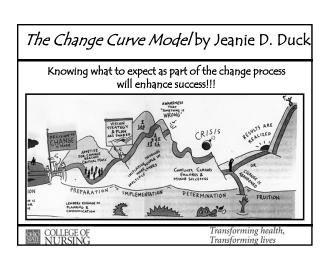
- What would you do if you knew you could not fail in the next 2 to 3 years?
- What is the smallest EBP change that you can make tomorrow that would have the largest positive impact for your patients' outcomes?

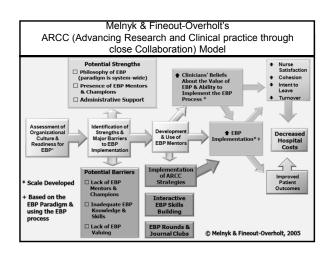












Evidence to Support ARCC

- 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

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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

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Creating a Culture to Implement and Sustain EBP: What Works

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



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Critical Components of an EBP Culture

- A philosophy, mission and commitment to EBP: there must be organizational commitment to advance EBP as evidenced by tactics such as orientations that include EBP and clinical ladders that incorporate EBP competencies
- A Spirit of Inquiry: all health professionals are encouraged to question their current practices
- A Cadre of EBP Mentors: who have in depth knowledge and skills in EBP, mentoring others, and overcoming barriers to individual and organizational change

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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, such as computers for searching and up to date data bases
- Recognition: individuals and units are rewarded regularly for EBP

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New EBP Competencies for Practicing & Advanced Practice Nurses in Healthcare Settings

- Creation of EBP competencies by 7 national experts
- Confirmed with two rounds of a Delphi Survey with EBP mentors across the U.S.
- Newly published in Worldviews on Evidence-based Nursing (February of 2014; Melnyk, Gallagher-Ford, Long & Fineout-Overholt)

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