Implementing Evidence-based Practice in Real World Practice Settings:
Key Strategies for Conducting and Disseminating EBP Implementation Projects

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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

EBP Culture & Environment

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

Quality Patient Outcomes

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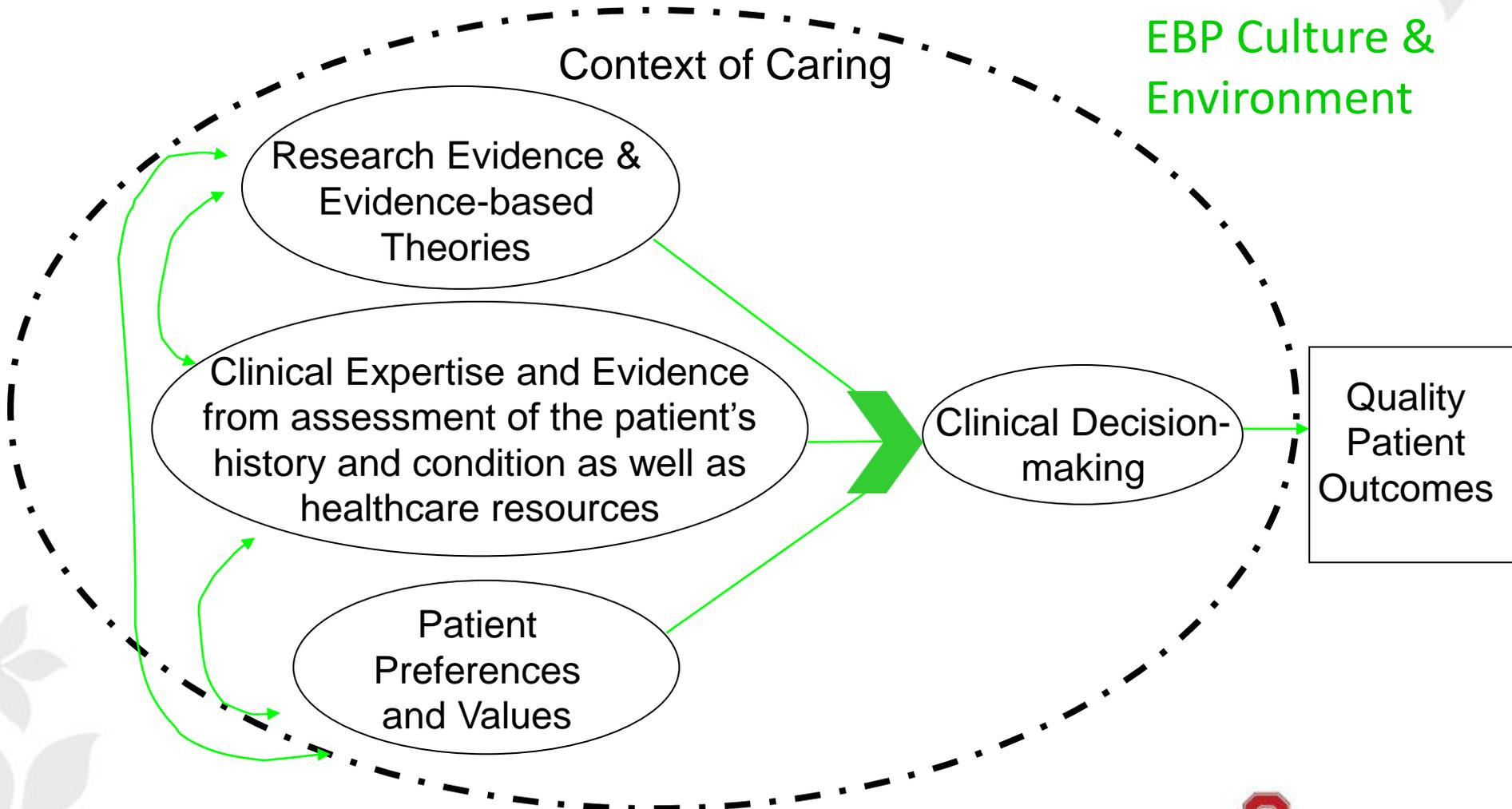
Evidence-Based Practice is the integration of Best Evidence with Clinical Practice

BEST EVIDENCE

EBP
Evidence
Clinical Expertise
Patient Values

CLINICAL PRACTICE

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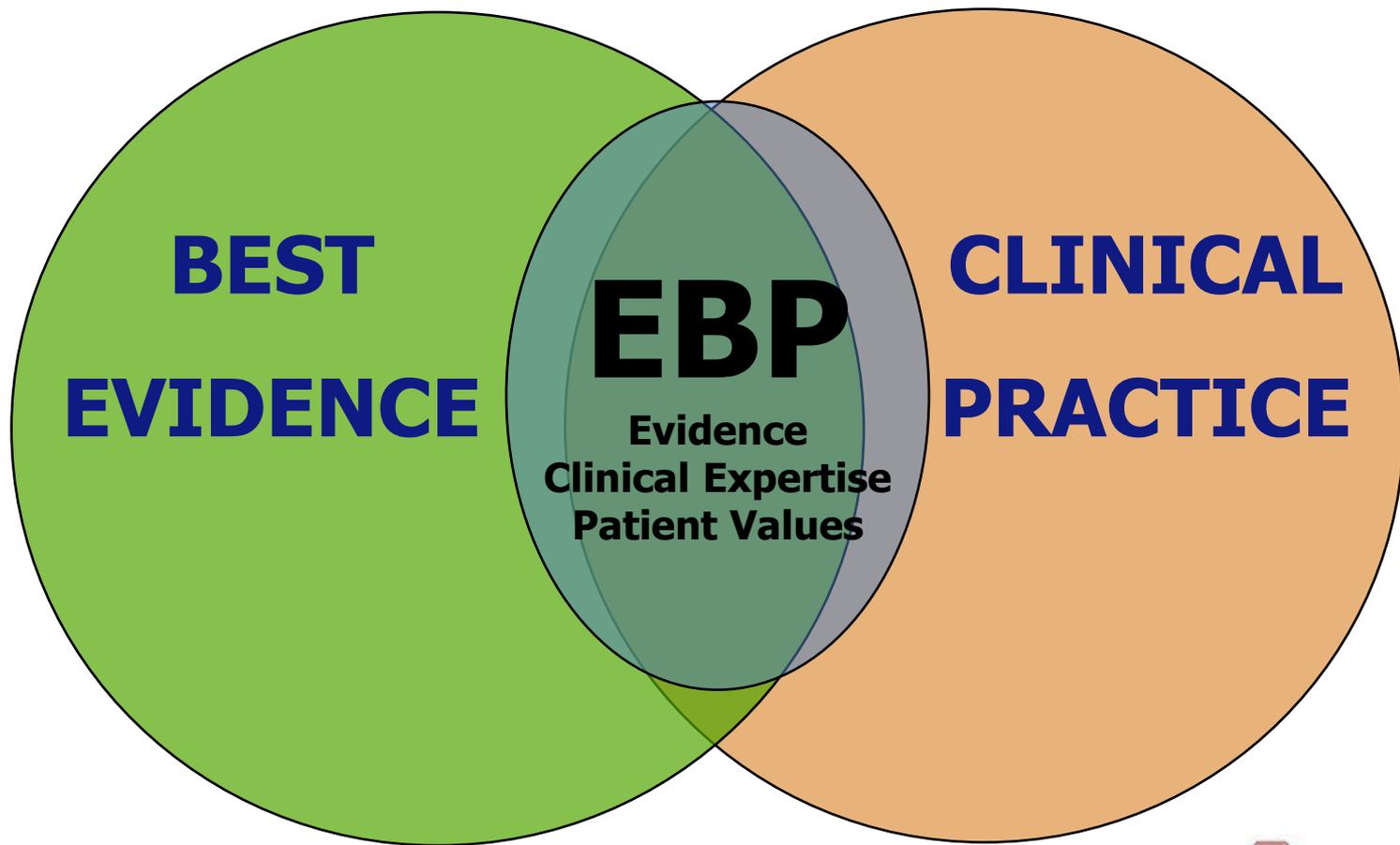
The Difference between Research and an EBP Implementation Project

- **Research:** a rigorous systematic inquiry designed to generate new knowledge and external evidence

- **EBP Implementation Project:** Implementation of a practice change based upon external evidence generated from research for the ultimate purpose of improving patient outcomes (may also integrate internal evidence)

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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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)

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

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

*P*atient population

*I*ntervention or Interest area

*C*omparison intervention or group

*O*utcome

*T*ime

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

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Levels of Evidence

Usefulness for Cause & Effect Decision Making
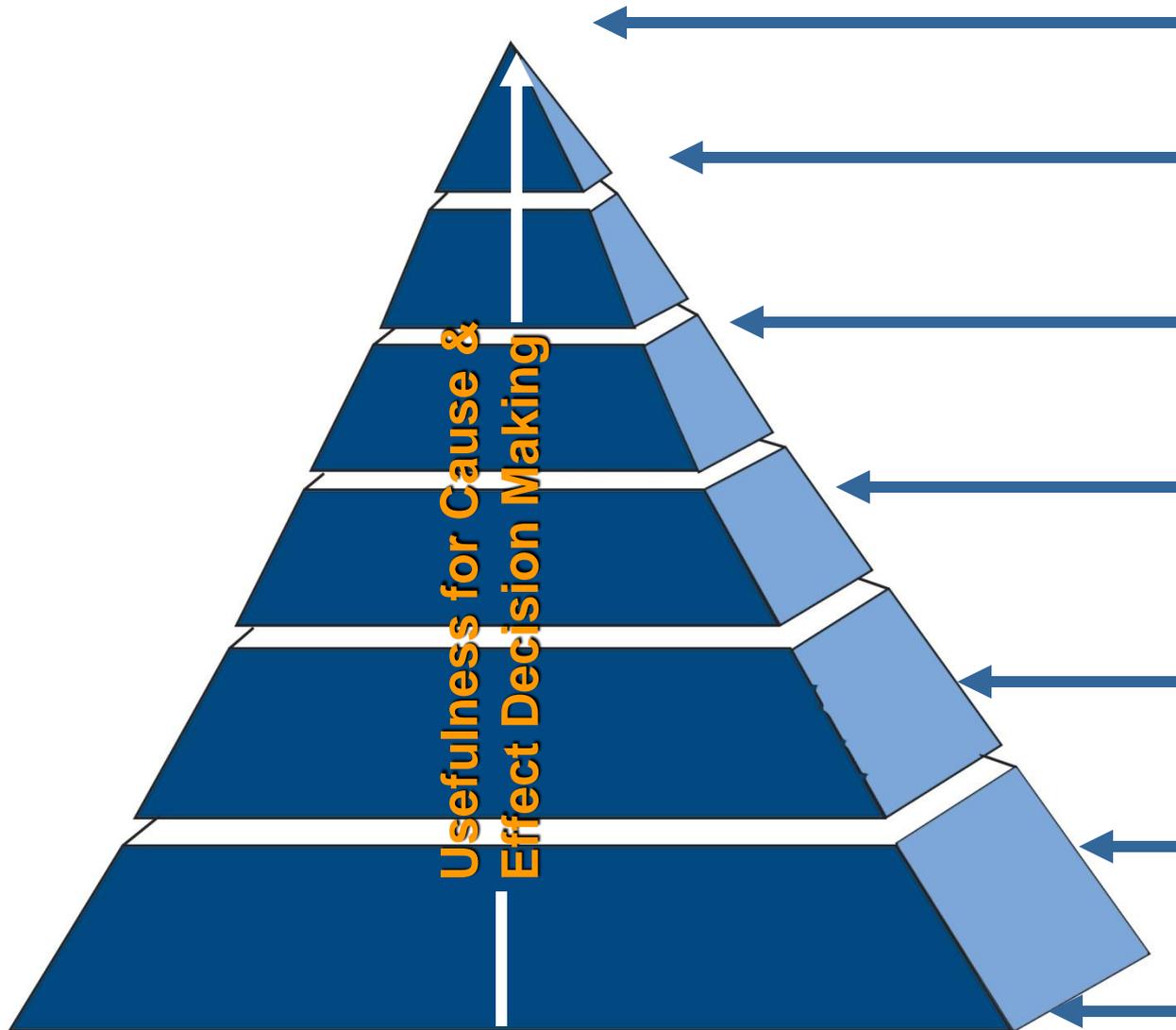
Systematic review or meta-analysis of all relevant randomized controlled trials (RCTs),

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

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Why Measure Outcomes?

- Evaluating outcomes of an EBP change is important to determine whether the findings from research are similar when translated into the real world clinical practice setting

- When an effective intervention from research is translated into clinical practice where confounding variables are not controlled and the patients are not the same as those used in research, the outcomes in the real world may be different

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

OUTCOMES

Important Questions to Ask When Selecting Outcomes to Measure of the EBP Project

- Are the outcomes of interest sensitive to change?
- How will the outcome of interest be measured (subjectively through self-report, objectively by observation, or through EHR data)?
- Are there valid and reliable instruments to measure the outcomes of interest?
- Who will measure the outcomes and will training be necessary?
- What is the cost of measuring the outcomes?

When to Measure Outcomes

- Before the practice change (at baseline)
- Shortly after the practice change (short-term follow-up)
- More long-term after the practice change, which provides data on the sustainable impact of the EBP change
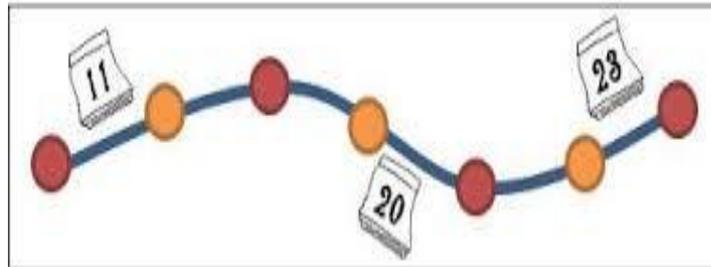
Remember to Also Include Process Measures That Lead to the Outcomes

- Process measures are how the EBP change is being implemented (e.g., Are the staff implementing the practice change as designed; Is it being *consistently* implemented; What are the barriers or facilitators of the EBP change?)

Steps of an
EBP Implementation Project

- Identify the problem; include data on the prevalence of the problem in your setting

- Ask the PICO question

- Search for and critically appraise the evidence

- Evaluate and synthesize the evidence

- Decide upon the best evidence-based practice change

Steps of an
EBP Implementation Project

- Identify goals for implementation of the EBP change, methods to be undertaken (e.g., education of staff, use of protocol sheets), potential barriers with strategies, outcomes to be measured, time-line and persons responsible for each goal

- Obtain IRB approval if needed

- Collect baseline data

Colleagues who are skeptical of or who do not believe in EBP may be a huge barrier to the success of an EBP implementation project

Steps of an EBP Implementation Project

- Implement the evidence-based practice change

- Measure the process and outcomes of the evidence-based practice change

- Disseminate the outcomes and celebrate the success!

Reducing Falls in a Definitive Observation Unit: An Evidence-Based Practice Institute Consortium Project

Gutierrez, F. & Smith, K; Published in CCQ

- ***The Problem Identified by a Spirit of Inquiry (Step 0)***

  -Falls in a high-acuity cardiac and medical surgical telemetry unit were exceeding the California Nursing Outcomes Coalition benchmark for hospitals similar in size

  -Each fall costs a hospital an average of $11,402 depending on injury and length of stay

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Reducing Falls in a Definitive Observation Unit: An Evidence-Based Practice Institute Consortium Project

- ## *The PICO Question (Step 1)*

    In a convenience sample of inpatients determined to be at high risk for falling (P), how does identifying and modifying practices determined to be obstructive to implementation of an evidence-based fall prevention practice (I) compared with current practice (C) reduce the occurrence of falls (O)?

Reducing Falls in a Definitive Observation Unit: An Evidence-Based Practice Institute Consortium Project

- ***The Search for Evidence (Step 2)***
  -A literature review of published fall-related research was conducted

  -100 publications underwent initial review, and then narrowed to 22 for thorough review; 18 were finally selected to be used to guide this EBP implementation project (most of the studies were conducted without random assignment)

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Reducing Falls in a Definitive Observation Unit: An Evidence-Based Practice Institute Consortium Project

- ***Critical Appraisal of the Studies from the Search Led to the Following Conclusions (Step 3)***
  -The etiology of falls is multifactorial

  -The following interventions reduce falls

  *Regular hourly rounding

  *Educational oversight of an active prevention protocol

  *An assessment tool

  *Ensuring appropriate lighting, clearing clutter, and removing
  trip hazards

Reducing Falls in a Definitive Observation Unit: An Evidence-Based Practice Institute Consortium Project

- ***Integration of the Evidence with Clinical Expertise and Patient Preferences to Determine the Practice Change (Step 4: Action)***

  A team, consisting of a bedside nurse (a fellow), an APN (the mentor), and a CNS (the project mentor) was formed to work on creating and implementing the EBP change to reduce falls; They attended an EBP institute, which was a consortium of local hospitals for nursing excellence in San Diego

  Paid time was given to work on the project (6 to 8 hour paid monthly sessions over 5 months and 48-hours paid non-clinical time)

  The fellow recruited the education training team that consisted of 2 day-shift and 2 night-shift RNs who ended up being champions for the project

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Reducing Falls in a Definitive Observation Unit: An Evidence-Based Practice Institute Consortium Project

- ***Integration of the Evidence to Determine the Practice Change (Step 4: Action)***

  Baseline data was collected regarding current practices to prevent falls, including surveys with nurses and physicians regarding what interventions they were using that helped to prevent falls

  Based on external and internal evidence, a SAFE (Specialty Adult Focused Environment) area and evidence-based fall prevention protocol was embedded into a new standard of evidence-based care for fall prevention

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Reducing Falls in a Definitive Observation Unit: An Evidence-Based Practice Institute Consortium Project

- ***Evaluate the outcomes of the EBP change (Step 5)***

  -In the previous three quarters before the EBP protocol was implemented, fall rates rose from 3.0/1000 patient days to 4.87/1000 patient days

  -In the first phase of the EBP change, fall rates dropped to 3.59/1000 patient days and staff knowledge increased regarding use of the fall prevention protocol

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Facilitators

I
♥
Evidence

The RN Champions were determined to be a key ingredient to the success of this project

Impact of Oral Hygiene on Prevention of Ventilator-associated Pneumonia in Neuroscience Patients

Powers, J., Brower, A. & Tolliver, S. ;
Published in Journal of Nursing Care Quality

- ***The Problem Identified by a Spirit of Inquiry (Step 0)***
  - Ventilator-associated pneumonia (VAP) is one of the most frequent complications among critically ill patients
  - The incidence of VAP is 10 to 65 percent
  - Patients with VAP have a mortality rate of 12 to 71%
  - Patients with VAP have increased ICU LOS from 4.3 to 19 days, costing $57,000 per occurrence

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Impact of Oral Hygiene on Prevention of Ventilator-associated Pneumonia in Neuroscience Patients

- ***The PICO Question (Step 1)***

  - In adult neuroscience patients (P), how does implementation of an evidence-based oral hygiene protocol (I) versus the current protocol being used (C) result in fewer episodes of VAP?

Impact of Oral Hygiene on Prevention of Ventilator-associated Pneumonia in Neuroscience Patients

- ***The Search for Evidence (Step 2)***

  - Etiology of VAP

  - A positive association exists between dental plaque and VAP

  - Several studies have linked the method of oral hygiene (e.g., antiseptic rinses to the prevention of VAP)

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Impact of Oral Hygiene on Prevention of Ventilator-associated Pneumonia in Neuroscience Patients

- ***Critical Appraisal of the Evidence (Step 3)***

  - Little evidence supports current oral care practices by nurses
  - Little evidence exists to inform oral care with neuroscience patients

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Impact of Oral Hygiene on Prevention of Ventilator-associated Pneumonia in Neuroscience Patients

- ***Integration of the Evidence to Inform Best Practice (Step 4: Action)***

  - A multidisciplinary ventilator management program team was developed, with a goal to decrease VAP
  - An evidence-based protocol for oral care was developed, including use of an antiseptic rinse with brushing the teeth every 12 hours, use of oral swabs every 4 hours, and deep oral-pharyngeal suctioning every 12 hours

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Impact of Oral Hygiene on Prevention of Ventilator-associated Pneumonia in Neuroscience Patients

- ***Evaluation of Outcomes (Step 5)***

  - In the first phase of implementation, the neuroscience unit went 13 weeks without any cases of VAP and 20 weeks with only one case

  - 5 months into the evaluation period, several cases of VAP were identified: the cause was investigated and learned that the unit was out of deep oral suctioning catheters, which went undetected

  - The oral care kits had been introduced as a trial and the staff thought the trial was over

  - The catheters are now packaged routinely as an oral care kit

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Linking Evidence to Action (Current Impact Factor = 2.38)

Editor
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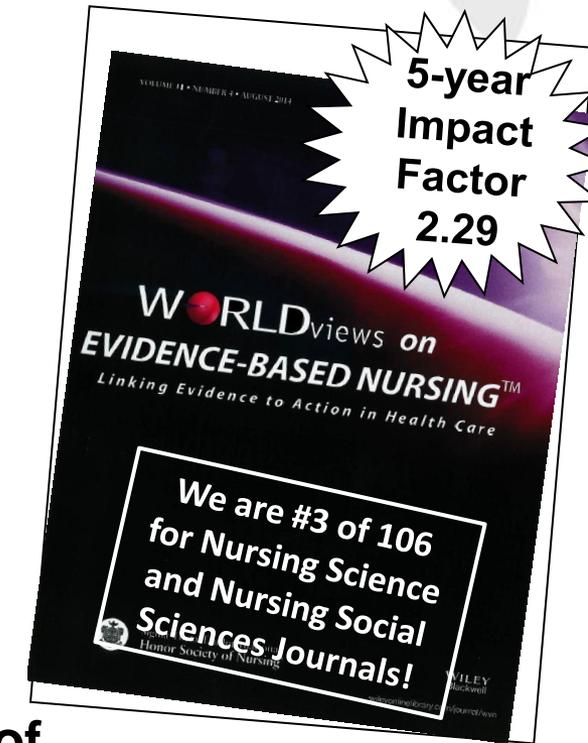
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Implementing and Sustaining EBP in Real World Healthcare Settings Column in Worldviews: Ideal for Publishing EBP Implementation Projects

REMEMBER…..

Author Guidelines

Length

Up to 1200 words

References

5-10 references

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W RLDviews
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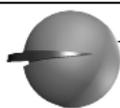
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SCHOLARONE™
Manuscripts

Manuscript is submitted; The journey begins!

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Three Scenarios with Submitted Manuscripts

- Accept
- Revise and resubmit
- Reject - Typical reasons include:
  - A similar paper was recently published
  - Writing style not clear- a fatal flaw!
  - Poor writing
  - Poor logic and flow
  - Inadequate description of the steps of EBP

Shocked

*I can't believe they didn't like my work!*

Revise and Persist through the Character-Builders!

- Important Facts to Remember

  - Very few papers are accepted without revisions

  - Many well written papers are rejected because the content and focus would be better suited to another journal

  - The paper is NOT you!

Persistence is a Key to Success

Theodor S. Geisel wrote a children's book that was rejected by 23 publishers. The 24th publisher sold 6 million copies of the first "Dr. Seuss Book."

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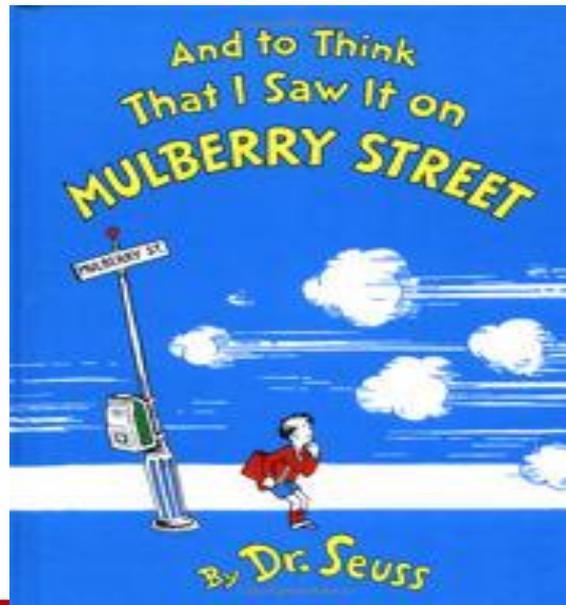
"I've looked at life from both sides now...."

- It is intimidating.
- It takes courage.
- You need to be confident in your content.
- You *may* have to face rejection(at first).
- Believing it's possible and perseverance are keys to success.
- You can do this!
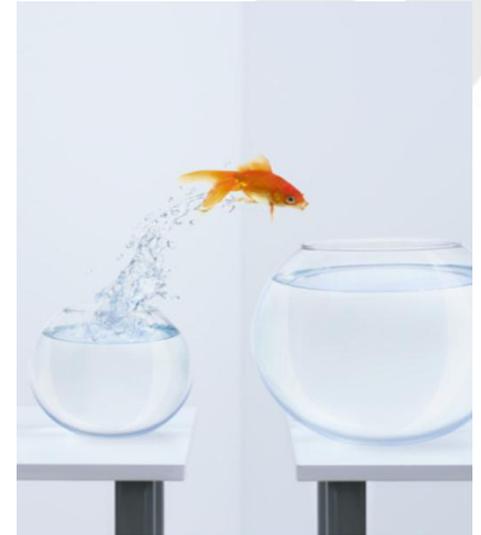
Ask yourself:

- What would you do if you knew you could not fail in the next 2 to 3 years?

- What is the smallest EBP change you can make that would have the greatest positive impact on your patients' outcomes?

"…because we've always done it that way."

The Next 30 to 90 Days are Critical for Action

- – Formulate your plan according to the 7 steps of EBP

- – Collect baseline data

- – Begin Implementation
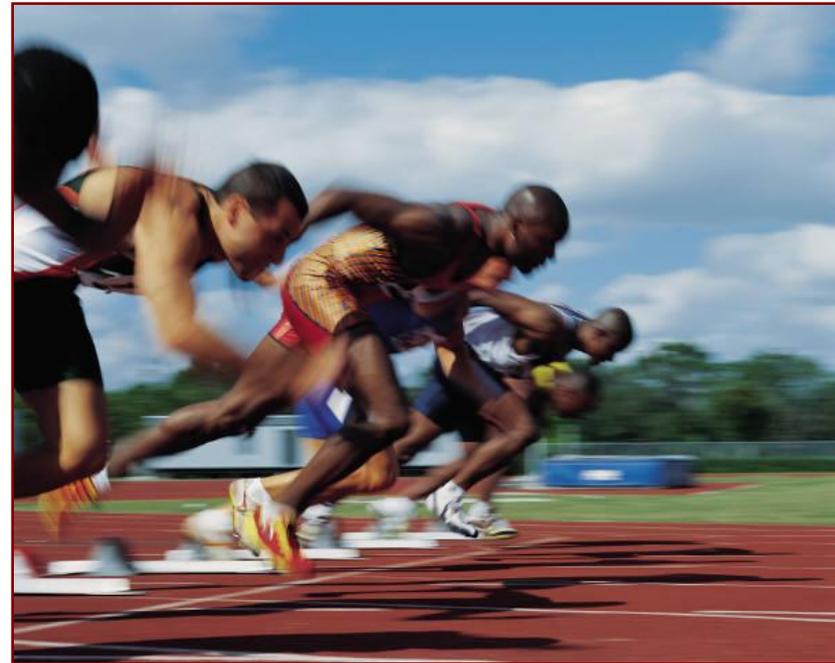
You Must Dream It Before You Can Do it!

What will you do tomorrow and in the next
2 to 3 years if you know that you could not fail?

Shoot for the moon, even if you miss, you will
hit the stars

-Les Brown

There Is A Magic In Thinking Big!

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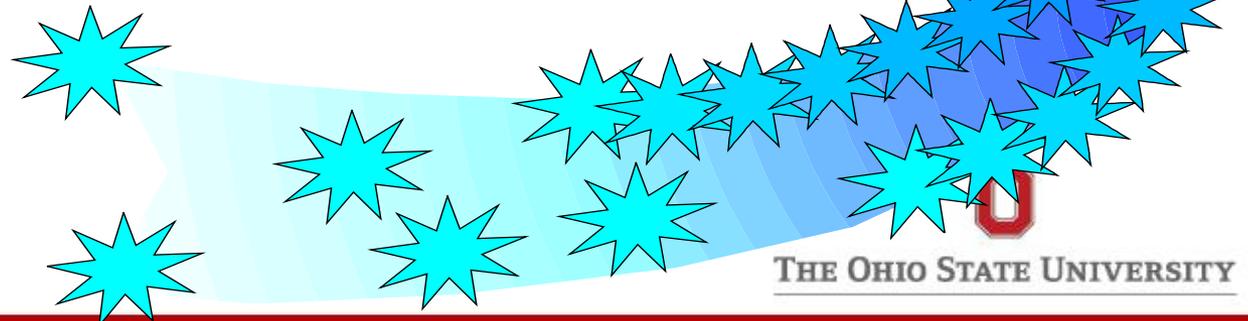
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