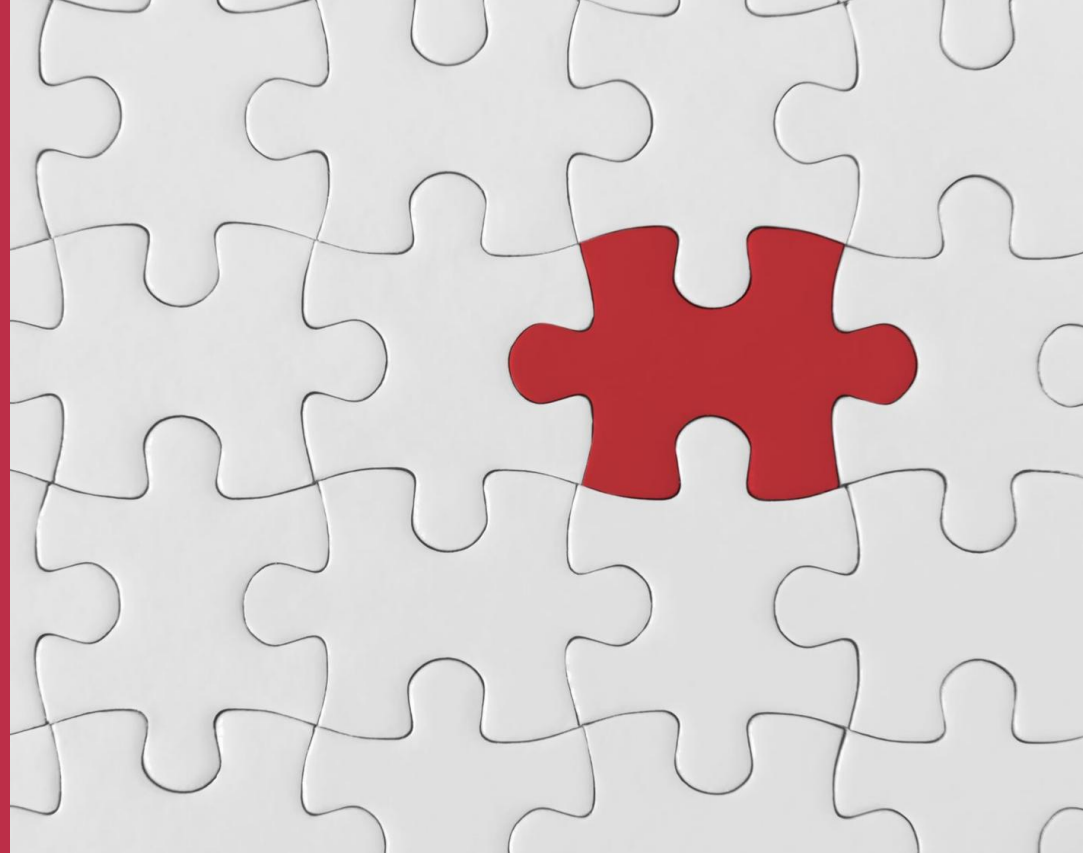


How to Solve The Evidence-Based Practice Puzzle: A Unit Council Approach

- Erica Adkins, DNP, MHI, RN
- Caitlin Totino, BSN, CCRN, LSSYB



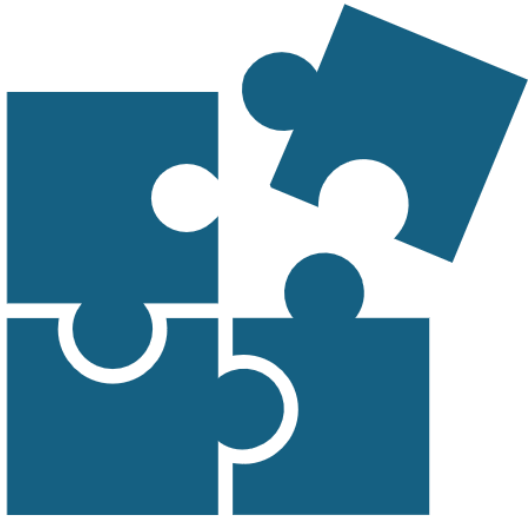
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Disclaimer

We have no real or perceived conflicts of interest that relate to this presentation.

Objectives

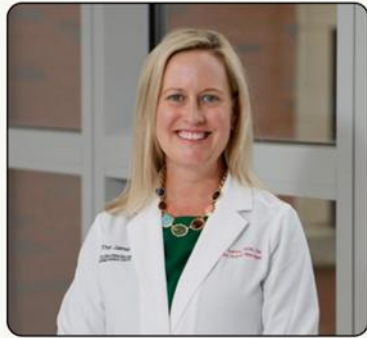


Participants will be able to identify the 7 steps of evidence-based practice.

Participants will be able to describe how the jigsaw journal method can be used to appraise and synthesize evidence to make evidence-based recommendations for implementation.

HELLO, I'M

**Erica
Adkins**



Nurse Manager
R8W Progressive Care Unit
The Ohio State University
Medical Center

ABOUT ME

I graduated from MCCN in 2012 and have worked at OSU and The James ever since! I recently completed my DNP at OSU and serve as an EBP mentor for the enterprise.

MY HOBBIES

- Raising my girl gang
- Golf
- Exploring new cities



MY GIRL GANG

THINGS I LOVE

- Being outside.... only when it's warm!
- Watching my girls compete in their sports.
- The Chiefs!
- BBQ
- Evidence Based-Practice

Contact: Erica.Adkins@osumc.edu

HELLO, I'M

**Caitlin
Totino**



Assistant Nurse Manager
2 Ross CICU
The Ohio State University
Medical Center

ABOUT ME

I graduated with my BSN from Kent State University. I have been a nurse for the past 12 years. I started at OSU in 2017 and have been in nursing leadership the last 4 years.

MY HOBBIES

- Reading
- Cooking
- Boxing
- Traveling



TEDDY

THINGS I LOVE

- Iced Coffee
- My dog Teddy
- Cleveland Sports
- Target shopping sprees
- Evidence-Based Practice

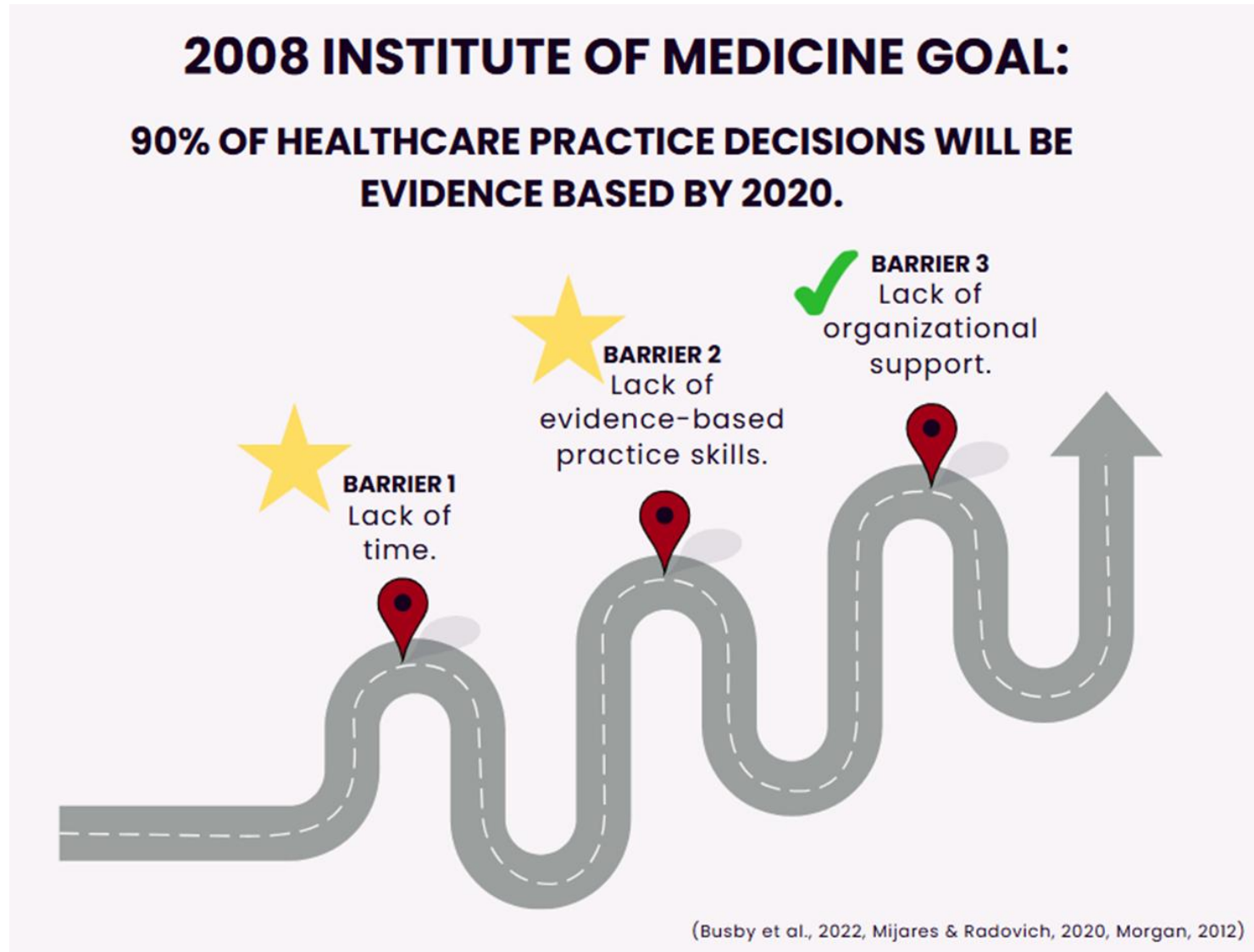
Contact: Caitlin.Totino@osumc.edu



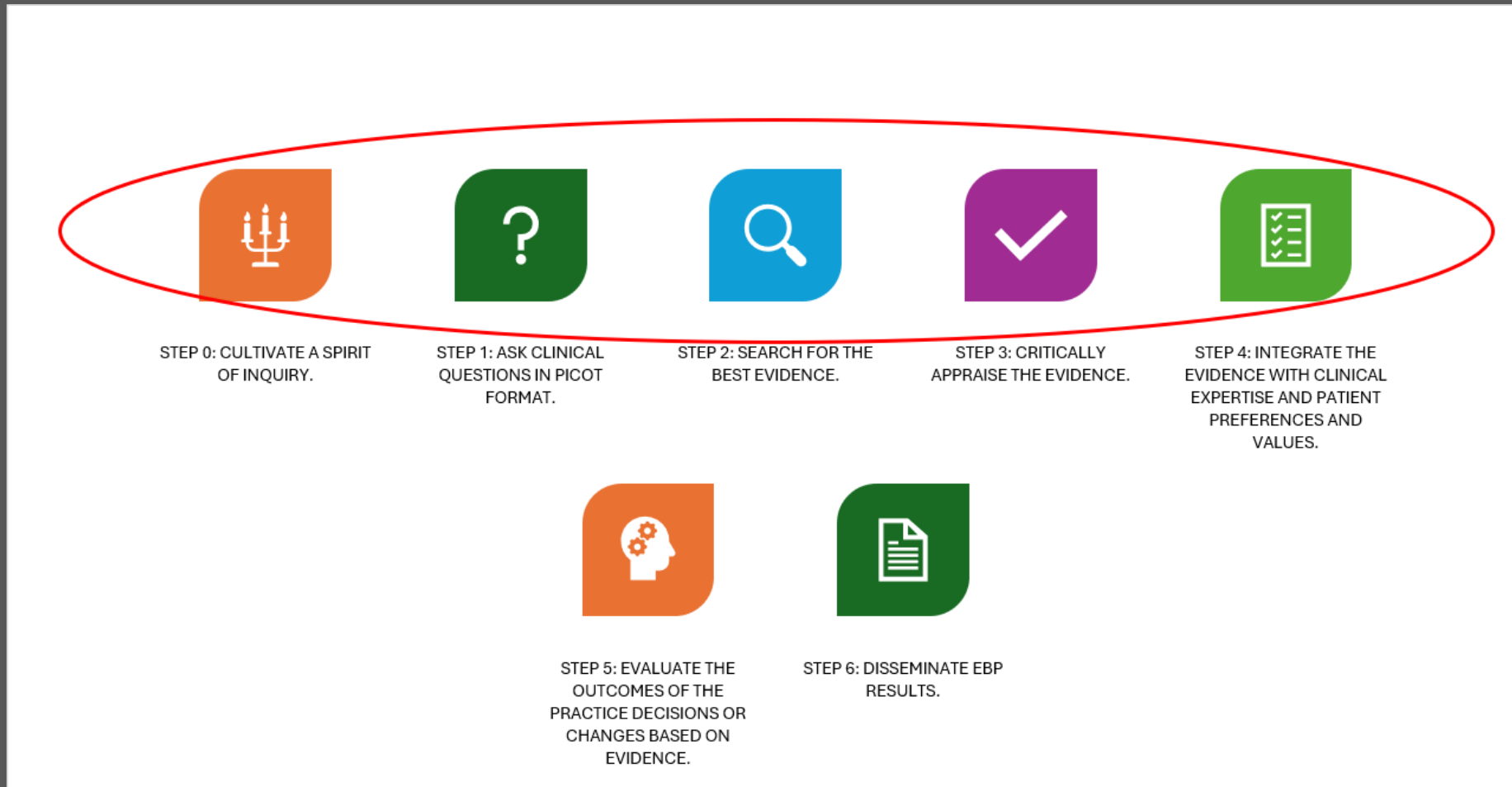
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Background & Significance



Steps of EBP



EBP Competency Scale

Validated scale

Measures the clinician's competence in the 24 designated competencies using a Likert scale from not at all competent to very competent

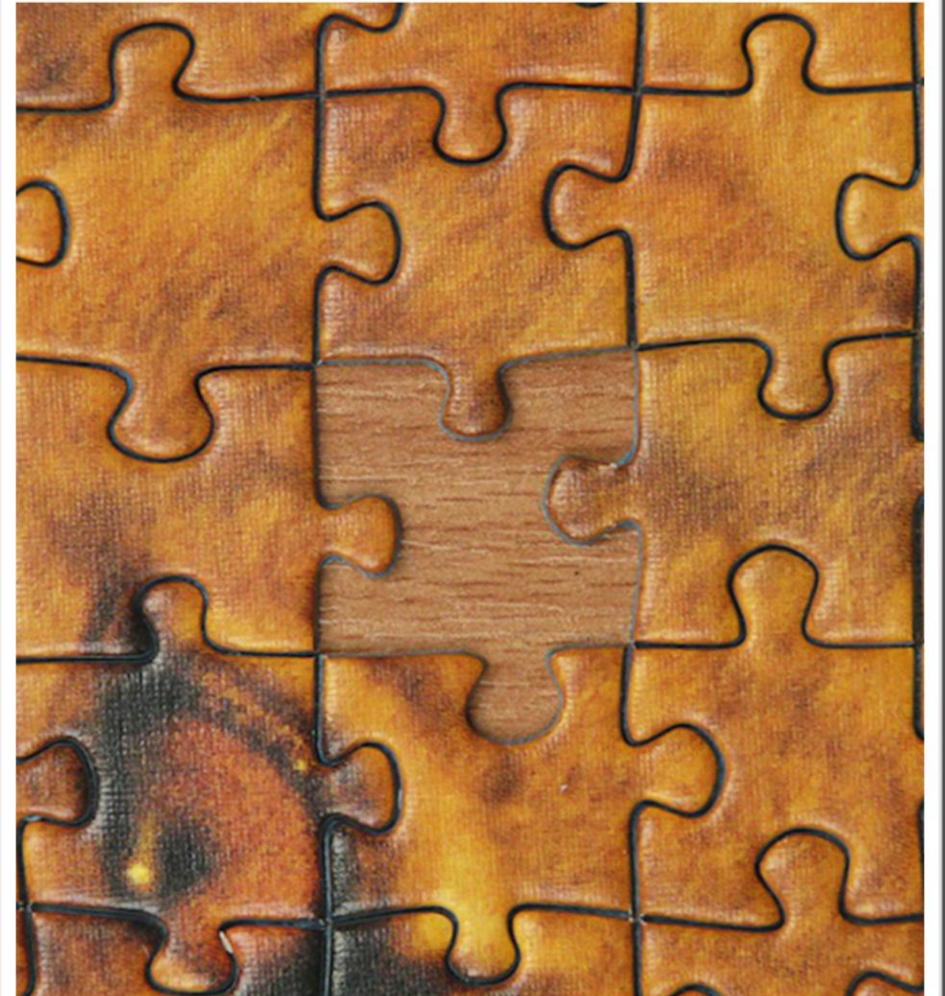
(Spiva et al., 2017)

EBP Competency (Items 1 to 24)

1. Questions clinical practices for quality improvement
2. Describes clinical problems using internal evidence
3. Formulates clinical questions using PICO(T) format
4. Searches for external evidence for clinical questions
- 5: Critical appraisal of evidence
- 6: Critical appraisal of published research
- 7: Evaluation and synthesis of evidence
- 8: Collects data as internal evidence
- 9: Integrates external/internal evidences
- 10: Implements changes to improve care
- 11: Evaluates outcomes
- 12: Disseminates best practice evidences
- 13: Strategies to sustain an EBP culture
- 14: Systematically search for external evidence
- 15: Critically appraises pre-appraised evidence/studies
- 16: Integrates a body of external evidence
- 17: Leads trans-disciplinary teams
- 18: Generates internal evidence
- 19: Measures processes/outcomes of clinical decisions
- 20: Formulates evidence-based policies/procedures
- 21: Generates external evidence
- 22: Mentors others
- 23: Implements strategies to sustain an EBP culture
- 24: Communicates best evidence

(Melnyk et al., 2010)

What is the Jigsaw Approach?



What is the Jigsaw Approach?



Who:

EBP Mentor and team



What

Explore the evidence then synthesis the results to make evidence-based recommendations



Where

Online or in-person



When

YOU decide your timeframe!



Why

Easy way to get frontline staff to contribute to better outcomes for patients AND themselves



How

That's the fun part!

How to get from

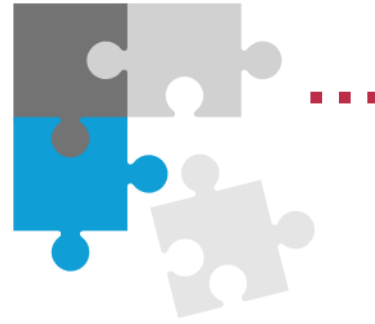


| Steps of EBP | How? | Who? |
|--------------------------------|--|------------------------------------|
| Step 0: Clinical Inquiry | What is your team struggling with? What could be done better? Is there a metric that needs to be improved? | Team Leader/EBP Mentor Team |
| Step 1: Form PICOT | PICOT questions template | Team Leader/EBP Mentor Team |
| Step 2: Search the evidence | CINAHL, Medline, Cochran, etc | Team Leader/EBP Mentor |
| Step 3A: Appraise the evidence | Articles returned from the literature search are distributed to each team member. Ideally only 1 article per person*. Use of helpful hint worksheet. | Team |

How to get from



to



| Steps of EBP | How? | Who? |
|----------------------------------|---|------------------------------------|
| Step 3B: Synthesize the evidence | Creation of outcomes and interventions tables. Digital or on paper | Team Leader/EBP Mentor Team |
| Step 4: Integrate the evidence | Based on the tables, decide your evidence-based recommendations and implement your practice change. | Team Leader/EBP Mentor Team |

Putting it in action!



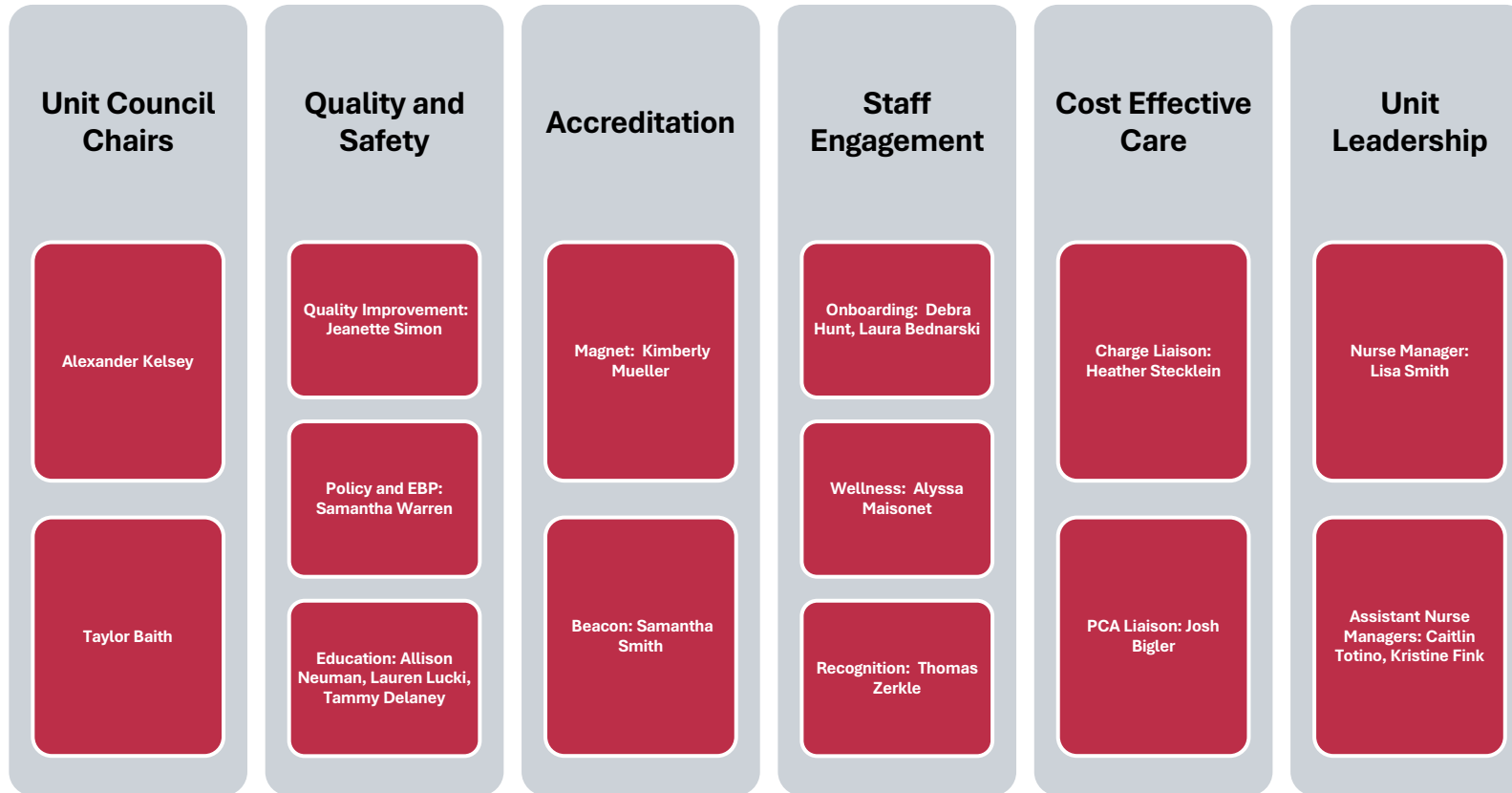
The 2 Ross Jigsaw Journal Club

The Richard Ross Heart Hospital

- The Ross Heart Hospital opened in 2004 as the nation's first academic hospital dedicated to cardiovascular care! The RHH originally housed 90 inpatient beds, which it quickly outgrew and was expanded to 150 inpatient beds. It also houses a Cath and EP lab, ORs and same day procedure areas.
- 2 Ross is focused on complex medical cardiology patients, including ACS, STEMI, Cardiogenic Shock and Heart Failure.
- 2 Ross is a 4-time Beacon Award Winner



Our Unit Council



Our Council meets once a month, and open to all staff.

Our committee members are scheduled 4 hours off unit to work on projects

Data: Pre-Intervention

● Not Competent ● Need Improvement ● Competent ● Highly Competent



Continued...

● Not Competent ● Need Improvement ● Competent ● Highly Competent



Current ULC Project

- Organizationally throughout Critical Care we have been working on ICU Liberation through use of the A-F Bundle, an evidenced based tool from the Society of Critical Care Medicine.



Clinical Inquiry



- 2 Ross is a unique ICU in the setting that we maintain a mixed case index of ICU and PCU level of care patients
- Many of our ICU level of care patients do not require mechanical ventilation
- This has led to a knowledge gap and lack of exposure to the SAT/SBT process of the A-F Liberation Bundle
- The unit council of 2 Ross has identified these inconsistencies in how SBTs/SATs are performed for their ventilated patients. They wonder what best practice is for performing SBTs/SATs and if there is any effect on ventilator days or length of stay.

How 2 Ross Used the Jigsaw Approach

- Once a clinical inquiry was made, we began the next steps of EBP
- A PICOT question was determined to help facilitate a literature review
 - “In ventilated patients (P) how do best practices/strategies for SBTs/SATs (I) compared to current practice (C) affect ventilator days (O)? ”
 - “In ventilated patients (P) how do best practices/strategies for SBTs/SATs (I) compared to current practice (C) affect length of stay (O)? ”
- We assigned 15 articles, 1 to each ULC member and used a worksheet to help guide them through the article's themes, interventions and outcomes

Clinical Inquiry:

- The unit council of 2 Ross has identified an inconsistency in how SBTs/SATs are performed for their ventilated patients. They wonder what best practice is for performing SBTs/SATs and if there is any effect on ventilator days or length of stay.

PICOT(T):

- In ventilated patients (P) how do best practices/strategies for SBTs/SATs (I) compared to current practice (C) affect ventilator days (O)?
- In ventilated patients (P) how do best practices/strategies for SBTs/SATs (I) compared to current practice (C) affect length of stay (O)?

Search Terms: ventilated patient or mechanically ventilated patient or intubated patients **AND** sbt or spontaneous breathing trial or weaning or liberation **OR** spontaneous awakening trial or sedation hold or sedation vacation or sedation interruption or daily sedation interruption or interruption of sedation **AND** ventilator days **OR** length of stay

Article Title: _____

Type of Study/Level of Evidence: _____

Remember: The population in the study might not be the exact same as what's on your unit. However, many interventions can be transferred to other populations. If you read something you think might be significant for context or background knowledge, highlight it to share!

Interventions Identified: _____

Outcomes Identified: _____

Additional Information: _____

Building the Synthesis Tables

Levels of Evidence Synthesis Table – Quantitative & Qualitative

| Level | Evidence Type | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-------|---|---|---|---|---|---|---|---|---|---|----|----|----|----|
| 1a | Systematic Review and Meta-Analysis | | | | | | | | | X | | | | |
| 1b | Systematic Review and Practice Guideline | | | X | | | | | | | | | | |
| 1 | Systematic Review and Meta-Synthesis | | X | | | | | | | | | | | |
| 2a | Randomized Controlled Trial | | | | X | X | | | | | X | | | |
| 2b | Intervention Study without Randomization | | | | X | | | X | | | | | | |
| 2 | Phenomenology, Ethnography, Grounded Theory | | | | | | | | | | | | | |
| 3 | Case Control Study, Cohort Study | | | | | | | | | | | | | X |
| 3 | Participatory Research, Historical Research, Case Study, Narrative Analysis | | | | | | | | | | | | | |
| 4 | Descriptive Study | | | | | | | X | | | | | | |
| 5 | Reviews of Literature (a-f) | | | | | | | | | | | | | |
| 6 | EBP Initiative/Project, QI Project | X | | | | | | | | | X | X | | |
| 7 | Expert Opinion | | | | | | | | | | | | | |

Interventions Synthesis Table

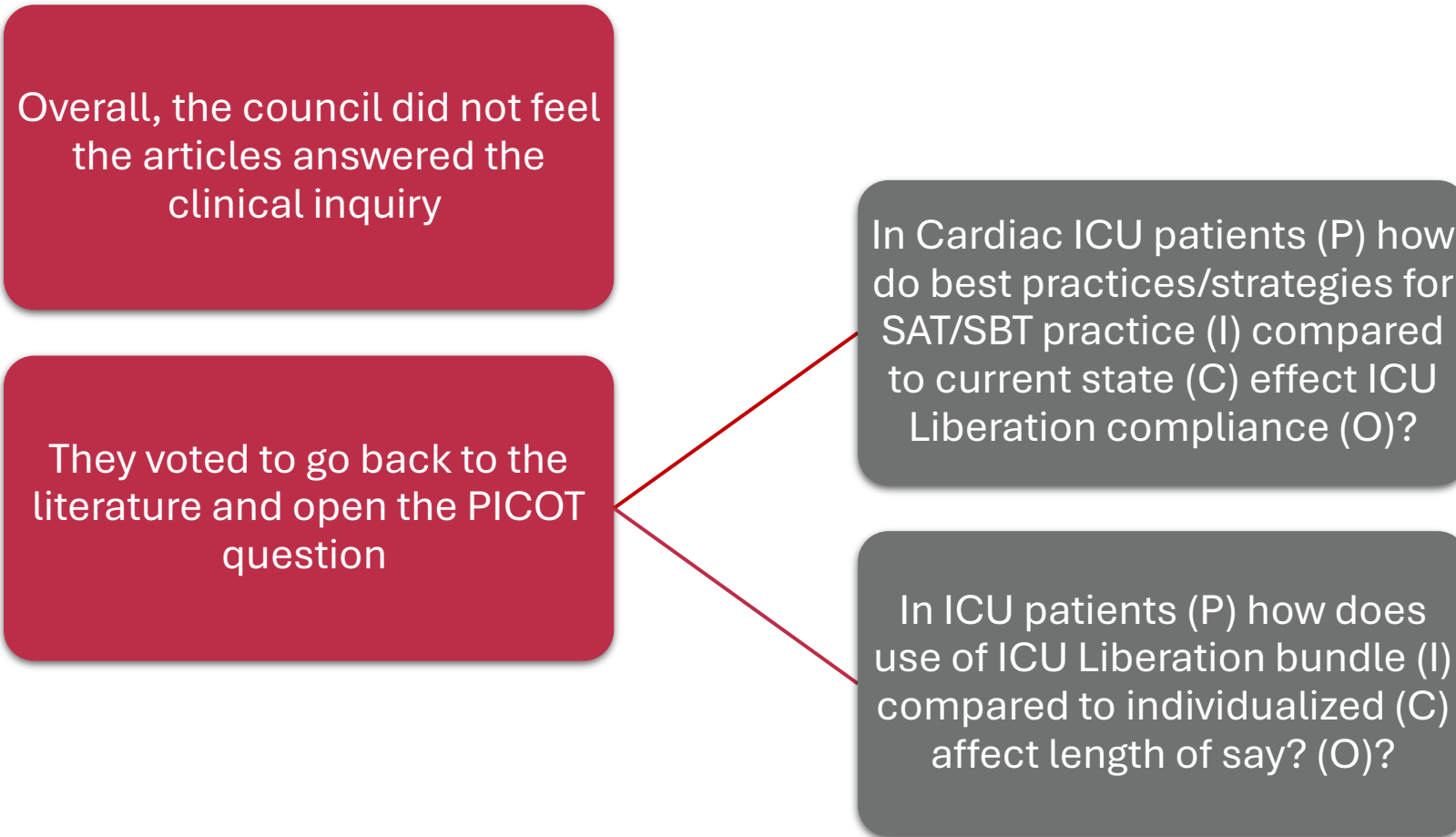
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| Staff education | X | | | | | | | | | | | X | | | |
| Creation of electronic dashboard | X | | | | | | | | | | | | | | |
| Weekly email updates | X | | | | | | | | | | | | | | |
| Weekly chart audits | X | | | | | | | | | | | | | | |
| Staff remediation | X | | | | | | | | | | | | | | |
| RSBI ratio/ RR tidal volume | | | X | | | | | | | | | | | | |
| Regular assessment for readiness for SBT | | | X | X | | | | | | | | | | | |
| No pressure support | | | X | | | | | | | | | | | | |
| Consistent [time] | | | X | | | | | | | | X | | | | |
| No increase FiO2 | | | X | | | | | | | | | | | | |
| MD-led weaning | | X | | X | X | X | | | | | | | | | |
| RN-led weaning | | X | | X | | | | | | | X | | | | |
| SBT with CPAP | | X | | | | | | | | | | | | | |
| SBT with T-piece for 2hrs | | | | | X | | | | | | | | | | |
| SBT with T-piece for 30 minutes for patients on vent greater than 7.2hrs | | X | | | | | | | | | | | | | |
| SBT with T-piece for 90 minutes for patients on vent greater than 48hrs | | X | | | | | | | | | | | | | |

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Outcomes Synthesis Table

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|-----------|-----------|---|---|---|----------------------|---|---|----|----|----|----|----|------------|
| SBT/SAT Compliance | ↑ | | | | | | | | | | | | | | |
| Mechanical ventilation time/ventilator days | ↑ | ↓ | with RN ↓ | | | ↓ | with less sedation ↓ | | | | ↓ | ↓ | ↓ | | |
| ICU Length of stay | | ↓ | | | | | | | | | ↓ | ↓ | ↓ | | |
| Weaning time | | with RN ↓ | | | | | | | | | | | | | with ATC ↓ |
| Hospital Length of stay | | | | | | | | | | | | | | | |
| VAP | | | | | | | | | | | | ↓ | | | |
| Reintubation rates | | | | | | | ↓ | | ↓ | | | | | ↓ | with BIP ↓ |
| SBT pass rate | | | | | | | | | | | | | | | with ATC ↑ |
| Mortality | | | | | | | | | | | | | ↓ | | |
| Patient and Staff Satisfaction | | | | | | | | | | | ↑ | | | | |
| Nosocomial infection rate | | | | | | | | | | | | ↓ | | | |

Evidence-Based Recommendations



Current Project Status

We are currently reviewing articles to assign out to staff; we will assign these this week at our monthly meeting!

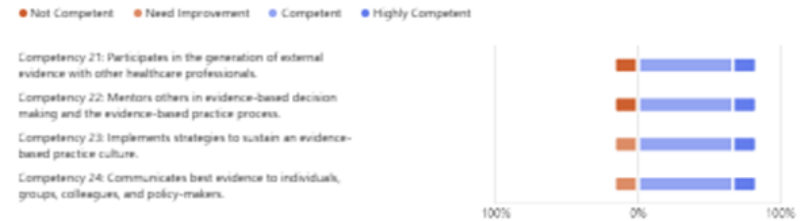


Data: Post-Intervention

1. Please select your level of competence for each of the EBP competencies using the following 4-point Likert rating scale: [1=Not Competent | 2=Need Improvement | 3=Competent | 4=Highly Competent]



2. Continued...



Outcomes

Largest areas of improvement:

Competency #3 :

Participates in the formulation of clinical questions using PICOT format

Competency #5 :

Participates in critical appraisal of pre appraised evidence

Competency #13 :

Participates in strategies to sustain an evidence-based practice culture



PRE

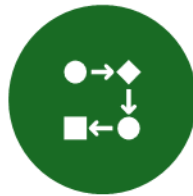
POST



Wins and Struggles



"It was a valuable experience to do some EBP article review/learning! This was a cool way to do it! Thank you providing the opportunity to learn something new!"



"At first I felt confused about the process, but as we worked through it, things started to come together"



"I've done lit searches on my own before, so it was difficult to not read all the data at first and just wait for the others to share"



"I'm looking forward to review articles again now that I know what to expect. I was nervous at the beginning but now that we've done it once I'm ready to do it again"



"I wanted to literature to show me the answers I wanted, so I had to work on reading the evidence for what it is instead of looking to validate my own thoughts"



THANK
YOU

Questions?

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Caitlin.Totino@osumc.edu