CTEP is your partner in achieving and sustaining improved healthcare quality and patient outcomes.
IMPLEMENTATION OF PROGRAMS AND INFRASTRUCTURES TO SUSTAIN EVIDENCE-BASED DECISION MAKING AND PRACTICE

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One Chief Nurse’s Journey

- 2012: New Chief Nurse & newly minted DNP
- Refined/reinvigorated EBP Council
- 2013: Discovered educational opportunity
EBP Immersions Introductions

• Right Place at the Right Time
• Journey to EBP formalized education
• 2014: Two EBP Immersions
  – 42 nurses, 1532 CEUs, saving about $108K
Setting the Stage

- Briefed Senior Air Force Nursing Leaders in 2014 & 2015
  - QI, EBP, and Research
  - EBP Leadership
- Developed hospital approval process for EBP projects
- EBP Immersions continued in 2015
  - Attendees from other Military hospitals and clinics
  - 63 nurses across 4 different facilities awarding 2,299.5 CEUs
Transforming into a Culture of EBP

- Expanded EBP Council
  - Create multidisciplinary council
- Created a Spirit of Inquiry
- Monthly Lunch and Learns
  - AJN 12-part EBP series
- EBP Focus Week
- Immersions expanded to include other disciplines
- AF Nurse Residency Program
Evidence Based Practice
Focus Week
November 10-14

EBP posters will be on display in the atrium
Do you question what you do with your patients?
If so, bring your questions for the “crazy maker” box!
With each question you drop in the box or game you win, receive a prize entry!

Mon - 0800-1000 Kick Off Day - Bring your “crazy makers” for a free cup of coffee. Located near the dining area in the basement.

Tue - Veterans Day.

Wed - Lunch & Learn, part 3 - 1200 RM 37B
(E&T) Critical Appraisal of the Evidence - 1 CE.

Thu - Game Day - PICOT BINGO 1100-1400
RM37B Prizes awarded!!

Fri - Grand Finale - 1200 RM 37B
Basket winners announced!

“The important thing is not to stop questioning.”
- Albert Einstein

POC: Tonya Smith, 257-3315
Making EBP a Reality in the AF NC....

• Immersions moved: School of Aerospace Medicine
• July 2015: Attended Tri Service Nursing Research Grant Camp
  – Met Nurses from Madigan Army Medical Center
• Sept 2015 Immersion
  – 5 Nurses from MAMC
    • First EBP Immersion in Jan 2015
• Oct 2015 applied for TRISERVICE Nursing Research Grant
Making EBP a Reality in the AF NC....

- Deputy Surgeon General (SG) USAF attended Dec 2015 Immersion
- ACNPs & CNS: Evidence for Utilization across AFMS
- Deputy SG sanctioned EBP working group
  - Create an Enterprise level clinical inquiry council
  - Develop/Standardize MTF EBP Councils
  - Design a plan for disseminating “best practices” throughout the AFMS
Making EBP a Reality in the NC....

• EBP Grant Awarded Jan 2016
• Dr. Lynn Gallagher-Ford Plenary Podium speaker at AF Senior Nursing Conference 2016
  – Concurrent Breakouts: PICOT and DISC survey
• Developed a Dissemination Proposal
  – Focus: Creating Local EBP Councils
• 2016 2 more EBP Immersions
• 2017 & 2018 Quarterly EBP Immersions continue
TriService Nursing Research Grant

- EBP Grant awarded entitled:
  - “Impact of Formal Education on Evidence-based Practice Competence of Nurse Team”

  - Standardized process for teaching, implementing and sustaining evidence-based decision making both in the clinical and leadership environments
  - EBP grant implemented an evidence-based education workshop that has been shown to be an effective strategy to increase the implementation of EBP in clinical facilities
  - **Innovation** in this project is the intentional recruitment of Tri-Level teams.
  - Teams will work together as EBP mentors to address clinical challenges through utilization of a tested, consistent process
  - Specifically, the purpose of this EBP Project is to determine if **Tri-Level Military Nursing Teams (Executive Leader, Clinical Leader, and Direct Care Clinician)** attending an EBP educational workshop is an effective strategy to build and sustain evidence-based competence, practice and culture.
PICOT Questions

• In practicing clinicians (P), how does completion of an EBP Educational Workshop (I) compared to no formal EBP education (C) affect EBP knowledge, skills, attitudes (competencies) and implementation (O)?

• In organizations (P), how does training in teams (I) compared to training as individuals (C) affect knowledge acquisition, skill acquisition and implementation of knowledge and skills acquired (O)?
Brief Overview

• Unique opportunity and outcome
  – Determine if Tri-Level teams:
    • Effective in changing practice
    • Building and sustaining an evidence-based practice culture

• Outcomes will provide clarity for individual and group roles of Tri-Level Teams to implement, sustain & disseminate EBP within organizations

• Determine if developing EBP competence in hierarchal nursing teams is an effective strategy to build and sustain a culture of EBP
Grant Project Plan

• Each member of the Tri-level teams completed an education program evaluation tool including
  – Demographic information
  – Organizational Culture & Readiness for System-Wide Implementation of Evidence-Based Practice (OCRSIEP) tool (19 items)
  – Evidence-based Practice Knowledge Assessment Questionnaire (EBP KAQ) (27 questions)
  – Evidence-Based Practice Beliefs (EBPB) tool (16 items)
  – Evidence-Based Practice Implementation (EBPI) tool (18 frequency items)
  – Evidence-Based Practice Competencies tool (13 – RN & 11 APN)

• Participants completed a five-day, in-person EBP Immersion Workshop at the United States Air Force School of Aerospace Medicine (USAFSAM) on Wright-Patterson AFB as a Tri-level team

• Two workshops were held: one for the inpatient facility teams, and one for the outpatient facility and the aeromedical evacuation teams.
Average Response Rates across the 12-month study by role

<table>
<thead>
<tr>
<th>Role</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Care Nurses (n = 11)</td>
<td>7</td>
</tr>
<tr>
<td>Chief Nurses (n = 10)</td>
<td>6</td>
</tr>
<tr>
<td>Mid-level, APN/Healthcare Integrator (n = 9)</td>
<td>2</td>
</tr>
</tbody>
</table>
Outcomes: EBP Knowledge

EBP Knowledge

1a) search the literature
1e) Formulate searchable question
1b) Evaluate EBP change
10c) EBP implementation increases
10b) Patient outcomes improve
10a) EBP beliefs increase
5. Organizational barriers to EBP
1h) Disseminate results
15. Question to assess organization readiness
20. Best outcome measure
11. PICOT represents
6. Difference between research and EBP
1g) Appraise articles from the literature
27. Differences between QI and research
21. Highest level of evidence
4. Correct example of PICOT question
26. Disseminate findings from EBP projects
18. Outcomes of clinical inquiry
17. Three components of EBP
7. Purpose of PICOT question
13. Barrier for EBP implementation
8. Difference between QI and EBP
25. Opportunities to improve outcomes of care
24. Valid reason to modify evidence-based care plan
22. Key element for promoting organizational EBP culture
16. Articles required to answer a clinical question
12. Example of EBP project dissemination
2. EBP is a problem solving approach
19. 3 databases to find the best evidence
3. Design research project is not a clinical inquiry competency
23. Remaining steps after using the IOWA model
14. EBP tool displays a fusion of a body of evidence
1j) Practice change based on the best article from literature
10. Correct hierarchical listing of levels of evidence
1f) Formulate hypothesis
1j) Course of action based on expert opinion
1d) Critique articles in literature
1c) Implement the study

Proportion subjects answered correctly
EBP Knowledge - Part 1
Change > 30% from Pre to 12-months

- Modify Evidence-Based Care Plan: Pre 82.4, 12-month 82.4
- EBP Project Dissemination: Pre 50, 12-month 82.4
- Identify Hierarchical Levels of Evidence: Pre 26.7, 12-month 88.2
- PICOT Question: Pre 70, 12-month 100
- Clinical Inquiry: Pre 43.3, 12-month 88.2
- EBP Definition: Pre 46.7, 12-month 70.6
EBP Beliefs - Part 2
Change > 20 % from Pre to 12-months

 IDENTIFY ELEMENTS FOR PROMOTING EBP CULTURE

 DATABASES TO FIND THE BEST EVIDENCE

 ADEQUATE BODY OF EVIDENCE

 PICOT

 PURPOSE OF PICOT QUESTION
EBP Knowledge – Key Points

• Least change on questions related to differentiating between EBP, QI & research
• All other questions, positive movement, but less than 20 %
Outcomes: EBP Culture and Readiness

<table>
<thead>
<tr>
<th>EBP Cultural Readiness</th>
<th>Pre</th>
<th>12-Mon</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Staff nurses have proficient computer skills</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>17 b). Decisions generated from - Upper administration</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>10. Nurses' access to computers/databases for evidence</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>17 c). Decisions from - Physician/other provider</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>15 d). EBP champions - Advance Nurse Practitioners</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>4. Physician team committed to EBP</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>2. Believe that EBP is practiced in your organization</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>16. Measurement and sharing of outcomes</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>9. Practitioners model EBP in clinical settings</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>5. Administrators committed to EBP</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>3. Nursing staff committed to EBP</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>17 a). Decisions generated from - Direct care providers</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>1. EBP as central to the mission and philosophy</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>15 c). EBP champions - Nurse Educators</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>19. Organization movement toward EBP culture</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>18. Institution in readiness for EBP</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>15 e). EBP champions - Staff Nurses</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>8. APN as EBP mentors</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>15 b). EBP champions - Physicians</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>15 a). EBP champions - Administrator</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>14. Fiscal resources to support EBP</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>6. A mass of nurses with EBP knowledge/skills</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>1. Nurse scientists assist in generation of evidence</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>12. Librarians have EBP knowledge/skills</td>
<td>▶</td>
<td>▶</td>
</tr>
<tr>
<td>13. Librarians used to search for evidence</td>
<td>▶</td>
<td>▶</td>
</tr>
</tbody>
</table>

1 (Not at all) | 2 (A little) | 3 (Somewhat) | 4 (Moderately) | 5 (Very much)
Organizational Culture/Readiness for EBP – Key Points

• Strong positive movement on EBP Champions: Nurse Educators, Staff Nurses, and Physicians
  – Almost no movement on Administrators as EBP Champions

• Other strong positive movement on the following:
  – Nurses’ computer skills
  – Sharing Outcomes
  – Overall Readiness
  – Utilization of nurse scientists and librarians

• Negative movement all related to question # 17, related to who makes decisions
EBP Beliefs – Key Points

• Strong positive movement on:
  – Clear about the steps
  – Know how to implement

• Negative movement on:
  – Can overcome barriers
  – It takes too much time

• Moderate positive movement on all others
Outcomes: EBP Competency - RNs

EBP Competency

1: Questions practices for care improvement
2: Describes clinical problems
8: Collects practice data
4: Searches for evidence
10: Implements practice changes
12: Disseminates best practices
11: Evaluates outcomes
9: Integrates evidence
13: Strategies to sustain EBP culture
7: Evaluation and synthesis of evidence
6: Appraisal of published research
5: Appraisal of pre-appraised evidence
3: Formulation of questions using PICO(T)

(Not Competent) (Need Improvement) (Competent) (Highly Competent)
Outcomes: EBP Competency - APNs

EBP Competency (Items for APNs)

20: Formulates evidence-based policies and procedures
15: Critically appraises relevant evidence
22: Mentors others
14: Systematically search for external evidence
24: Communicates best evidence
23: Implements strategies to sustain EBP culture
19: Measures processes/outcomes of EBP
16: Integrates a body of external evidence
21: Participates in the generation of external evidence
18: Generates internal evidence
17: Leads trans-disciplinary teams in applying evidence

(Not Competent) (Need Improvement) (Competent) (Highly Competent)
EBP Competencies – Key Points

• Strong and sustained positive movement on all RN & APN competencies
Outcomes: EBP Implementation

- 1. Used evidence to change clinical practice
- 2. Critically appraised evidence
- 3. Generated a PICO question
- 4. Discussed evidence
- 5. Collected data
- 7. Evaluated the outcomes
- 6. Shared evidence with colleague
- 10. Shared evidence with multi-disciplinary team member
- 11. Appraised a clinical research study
- 12. Accessed the Cochrane database
- 14. Used EBP guideline
- 15. Evaluated a care initiative
- 16. Shared the outcome
- 17. Changed practice
- 18. Promoted the use of EBP
Change from Pre to 12-months by Age

- Change in EBP Beliefs: $r = -0.40$ (P=0.11)
- Change in EBP Competency: $r = 0.07$ (P=0.78)
- Change in EBP Implementation: $r = 0.28$ (P=0.27)
TriLevel Team Project Outcomes

• 30 EBP Mentors created across 10 facilities

• 3-6-12 month teleconference follow-ups
  – 3 & 6 months 10/10 teams; 12 month follow-up 8/10 teams
  – Only 4/10 (40%) of Trilevel teams intact after 12 months

• Implementation
  – 9 of 10 (90%) of teams implemented EBP project

• Dissemination
  – 1 of 10 teams presented project at Conference
  – 1 of 10 teams presented project at CTEP Webinar
Evidence-based Practice Councils

• Outcomes supported the need for
  – Structured process is needed in an organization to build, implement, sustain, and disseminate EBP
  – Processes must include mechanisms for educating the concepts of EBP

• Evidence supports implementation of EBP Councils at every AF MTF to provide structure & processes to build, implement, sustain, & disseminate EBP

• Based on the evidence, it is recommended for Evidence-based Practice (EBP) Councils be implemented at every MTF (hospital or clinic) across the AF to provide structure and processes to build, implement, sustain, and disseminate EBP in the real-world setting
Enterprise Solutions

Clinical Question (Gap)

- Apply Evidence EBP Project
- Yes
  - Evidence in Literature
- No
  - Create Evidence Research Project
- Translate Evidence to Practice
- Evaluate Quality of Practice Change
- Change Clinical Question (Gap)
  - Evaluate Quality of Practice Change
  - Translate Evidence to Practice
  - Create Evidence Research Project
  - Apply Evidence EBP Project
EBP Leadership in your Organization

- Assess facilities readiness
- Organization mission
- Educate EBP Mentors
- Create Mentor job descriptions
- Implement EBP Competencies
- Design an EBP Council
- Evaluate Patient Outcomes