Does increased education and exposure to applications of evidence-based practice (EBP) improve clinicians' knowledge and implementation of EBP?

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Does increased education and exposure to applications of evidence-based practice (EBP) improve clinicians’ knowledge and implementation of EBP?

7th Annual Nursing Science Conference: Advancing New Knowledge through Evidence-based Practice and Research

September 18, 2019
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Introduction

Nursing Research and Innovation Committee (at a Magnet© Organization)

As a committee we asked....
...how do we increase EBP comfort, skills, use, and confidence?

The group declares no conflict of interest.
Introduction

We know….EBP is a foundational problem-solving movement and a standard of care that:

- Increases care quality and reimbursement (Melnyk et al. 2014)
- Reduces variability in care (Wonder et al. 2017)
- Essential skill for Magnet© (Connor et al. 2017)
- Can be difficult to measure without being subjective (Wonder et al. 2017)
Introduction

We decided to create education sessions, which we called “EBP Forums”

Each Forum included:
1. Education on EBP process using the IOWA model
2. Example of EBP in action with an expert guest speaker
3. A concurrent article for that month’s journal club
Introduction

I asked the group – *can we make this an example of a research project at the same time?*

We used the **Revised IOWA Model** to guide our process and did an **IRB proposal**.

Project determined non-human subject research.
We did a search to see what others have done:

~ Quick-EBP-VIK (Connor et al. 2017)
~ 16-item EBP Beliefs Scale and 18-item EBP Implementation Scale (Melnyk et al. 2008)
~ EBPQ (Wonder et al. 2017)
~ EKAN (Wonder et al. 2017)

Chosen due to concise measure of 3 domains:
1. Values
2. Beliefs
3. Implementation
Methods: “Pre-” Survey

Pre-Intervention Survey:
~ Quick-EBP-VIK on Qualtrics platform
~ Plus demographic questions
~ Open October 10 - November 15, 2017

Results drove our Forums’ content:
1. EBP is already highly valued
2. Focus on knowledge and implementation
Hypothesis

Does increased education and exposure to applications of EBP improve clinicians’ knowledge and implementation of EBP?
Methods: PICO

**Population**: RNs and ancillary clinicians at Christ Medical Center

**Intervention:**
- consistent exposure to EBP terms, practices, and policies over one (1) year
- using six (6) Forums presented at the Shared Practice Council (SPC)
- reinforced with materials provided to the floors and journal club articles.
Methods: PICO

Comparison:
  pre- and post- scores of Quick-EBP-VIK tool (Connor et al. 2017), which was used with permission!

Outcomes: RNs will have increased knowledge and use of EBP
Methods: Intervention

Included for each Forum:
1. Topic chosen based off EBP posters made by each floor for Nurse’s week May 2017
2. Powerpoint presentation at Shared Practice Council (SPC)
3. Supporting material handouts and huddle tips
4. Corresponding research article for journal club with CE
Methods: Intervention

Topics for the 6 Forums:

- Clinical Opiate Withdrawal Scale (COWS) – August 2017
- Safe Patient Handling – November 2017
- Dysphagia Bedside Screening – January 2018
- Palliative Care Consult Triggers – March 2018
- Quiet Time Benefits – May 2018
- Sepsis Assessments Every Shift – September 2018
Methods: Intervention

Powerpoint Presentation

1. Introduction to EBP
   ~ broke down the IOWA model steps into teachable pieces
   ~ presented by Nursing Research Committee member

2. Guest speaker walked through the IOWA model process
   with an example from their work --- An example follows....
THE IOWA MODEL REVISED is the evidence-based practice (EBP) model we use at ACMC

Let’s break it down into simple steps.....
STEP 1: IDENTIFY AN ISSUE AND STATE A QUESTION OR PURPOSE

Identify triggering issues or opportunities:
- Clinical or patient identified issue
- Organization, state, or national initiative
- Data or new evidence
- Accrediting agency requirements or regulations
- Philosophy of care

State the question or purpose

Is this a priority?

Consider another issue or opportunity

YES! Go to Step 2

NO
STEP 2: FORM A TEAM AND GATHER EVIDENCE

Form a team

Assemble, appraise, and synthesize evidence:
- Conduct systematic research
- Weight quality, quantity, consistency, and risk

Is there sufficient evidence?

YES! Go to Step 3

NO

Conduct Research

Reassemble
**STEP 3: DESIGN AND PILOT THE PRACTICE CHANGE**

**Design and pilot the practice change:**
- Engage patients and verify preferences
- Consider resources, constraints, and approval
- Develop localized protocol
- Create an evaluation plan
- Collect baseline data
- Develop an implementation plan
- Prepare clinicians and materials
- Promote adoption
- Collect and report post-pilot data

**Is change appropriate for adoption in practice?**

**YES! Go to Step 4**

**NO**

- Consider another issue or opportunity
  - Go Back to Step 1 - Consider another issue or opportunity
  - Redesign
  - Go Back to Step 2 - Reassemble
Integrate and sustain practice change:
- Identify and engage key personnel
- Hardwire change into system
- Monitor key indicators through quality improvement
- Reinfuse as needed

Go Back to Step 1 - Consider the next issue or opportunity
Methods

Example Handout Materials given to SPC members to take back to their floors

a) SBAR
b) Huddle Tips
c) Practice Highlights
Methods: Limitations

1. Sometimes unclear goals within the Research Committee ----
   - ?? Teach EBP skills
   - ?? Teach the EBP practices

2. Challenges presenting the information through SPC:
   - ~ Forums fit in during their lunch hour
   - ~ SPC members did not consistently take back and present
   - ~ Managers were not included enough in the beginning

We attempted to address these challenges throughout the year, making changes to our materials and our communication with the SPC.
Methods: “Post-” Survey

Post-Intervention Survey:
~ Same Quick-EBP-VIK in Qualtrics
~ Same demographic questions
~ Open October 30 - November 29, 2018
~ Added one more question:
  if they had heard of the Forums
Results: Demographics

- **Number of Individuals**
  - **Leader**
  - **Clinician**
  - **Female**
  - **Male**

- **2017**
  - n = 157
- **2018**
  - n = 109
Results: Demographics

- **2017**: n = 157
- **2018**: n = 109

### Graph 1: Number of Individuals by Role
- **RN**: Purple
- **RT**: Dark Blue
- **SW/CM**: Light Green
- **therapist**: Light Blue
- **PCIA**: Orange
- **Other**: Red

### Graph 2: Education Levels
- **Diploma**: Blue
- **Associate’s**: Red
- **Bachelor’s**: Purple
- **Master’s**: Light Blue
- **Doctorate**: Green

- **2017**: n = 157
- **2018**: n = 109
Results: Demographics

2017   n = 157  
2018   n = 109

Number of Individuals

2017   2018

RN | RT | SW/CM | therapist | PCIA | Other

2017  2018

FT | PT | Registry

2017  2018

No  | Yes | No Response

2017  2018

My unit has a journal club

2017   n = 157  
2018   n = 109
Results: Demographics

Number of years you have been...

...practicing

...at this organization

...in your present position

2017 n = 157
2018 n = 109
Results: Surveys

Q1: The application of EBP

Q2: I work in an environment that values change in practice based on evidence.

Q3: EBP is valued by nursing leadership within my unit/program

Q4: By utilizing EBP I am able to change agency-wide nursing practice

Q5: EBP is not important to any nursing practice

![MEAN LIKERT SCALE RESPONSE](chart.png)

EBP VALUE QUESTIONS

- **Q1**: p=0.72
- **Q2**: p=0.98
- **Q3**: p=0.15
- **Q4**: p=0.03
- **Q5**: p=0.18
Results: Surveys

Q1: Steps of EBP
Q2: How to form a PICO question
Q3: A ranking system of the hierarchy of evidence
Q4: Performing a computerized literature search using online databases
Critically appraising a:
Q5: systematic review
Q6: qualitative research study
Q7: quantitative research study
Results: Surveys

In the past 12 months, how often have you:

**Q1:** performed the steps of EBP

**Q2:** developed a PICO question related to a problem identified from your clinical practice

**Q3:** performed a literature search

**Q4:** critically appraised the evidence from a literature search that pertains to your clinical practice
Results: Surveys

In the past 12 months, how often have you(r):

Q5: shared the knowledge obtained from the EBP process

Q6: used the results from EBP to formally propose a change in the clinical practice

Q7: results from EBP resulted in a change in clinical practice
Limitations

1. Sometimes unclear goals within the Research Committee ----
   ?? Teach EBP skills
   ?? Teach the EBP practices

2. Challenges presenting the information through SPC:
   ~ Forums fit in during their lunch hour
   ~ SPC members did not consistently take back and present materials
   ~ Managers were not included enough in the beginning

We attempted to address these challenges throughout the year, making changes to our materials and our communication with the SPC.
Conclusions

1. Consistent education and exposure to applications of EBP does improve clinicians’ knowledge and implementation of EBP

2. Need to address challenges:
   ~ more consistent and clear goals
   ~ where and to whom to present
   ~ how to get the information to clinicians
Next Steps

For 2018, the Research Committee:
1. Clarified the project goal to be teaching EBP
2. No longer presents at SPC
   ~ Changed to Grand Round format
   ~ includes CE, refreshments, and paid lunch for attending
3. Distributing Grand Round schedule and information to:
   - Managers
   - SPC
   - CNO – who forwards information on weekly email
Implications

** Having an EBP-specific education program is EBP practice and may be especially important for creating a culture of EBP at Magnet© organizations **

Christ is committed to continue their EBP Forum Grand Rounds and plans to enhance their EBP program starting Winter 2018
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References


Questions or Comments