EBP Project Planning

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Objectives

1) The participant will articulate the general steps of an EBP model.
2) The participant will identify how to form a clinical question and examine the literature for relevant research.
3) The participant will be able to apply the general steps of EBP project planning to an existing nursing problem.
What is EBP?

“An ongoing process by which evidence, nursing theory and the practitioners’ clinical expertise are critically evaluated and considered, in conjunction with patient involvement, to provide delivery of optimum nursing care for the individual.”

Evidence-based nursing is the foundation for professional nursing practice

EBN is an integration of the best evidence available, nursing expertise, and the values and preferences of the individuals, families and communities who are served.

This assumes that optimal nursing care is provided when nurses and health care decision-makers have access to the latest research, a consensus of expert opinion, and are thus able to exercise their judgment as they plan and provide care that takes into account cultural and personal values and preferences.
The Three Legged Stool

Evidence Based Practice

Evidence

Nursing

Patients
Why EBP?

- Explosion of information
  Healthcare literature published at rate impossible to keep up with

- Unmet information needs
  Questions generated from each interaction

- Implementation delays
  Average of 17 years for clinical research to be fully integrated into everyday practice
What is the Purpose of EBP?

• Systematic problem solving approach that is evidence driven

• Provides foundation for best quality patient care based on integration of strongest available evidence

• IRB approval not necessary

• Not rapid cycle, require more time, resources, money
How is EBP Done?

Originates from a clinical/practice question

Multiple models
- IOWA model
- Johns Hopkins Model
- Stetler Model
- Rosswurm and Larrabee Model
- ACE Star Model
How is EBP Done?

Regardless of model, systematic approach:

1. Identify a Problem
2. Formulate a Question
3. Conduct a Literature Review
4. Evaluate the Literature
5. Determine if Practice Change is Warranted
6. Implement Practice Change
7. Evaluate Change
Problem Identification

- **Problem focused triggers**
  - Identified through quality data, risk management, benchmarking data, financial data, clinical problems

- **Knowledge focused triggers**
  - Generated from reading literature, attending conferences
The question you ask determines the answer you get
PICO(T)

The acronym PICO assists in remembering the steps:

P = patient or problem
I = intervention
C = comparison intervention
O = outcomes
T = time frame
Conduct a Literature Review
Develop Your Search Strategy

• Your PICO(T) question is your first stop for search terms.
  • Population: Spine surgery patients
  • Intervention: Intraoperative vancomycin powder
  • Comparison: No intraoperative vancomycin powder
  • Outcome: Reduced rate of surgical site infection

• Keywords are also valuable in developing your search strategy.
## Identify Search Terms

<table>
<thead>
<tr>
<th>Thesaurus terms</th>
<th>P: spine surgery patients</th>
<th>I: intraop vancomycin powder</th>
<th>C: no vancomycin powder</th>
<th>O: Reduced SSI rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spine Surgical procedures, operative Spine/surgery</td>
<td>Vancomycin Powders Intraoperative period Intraoperative care</td>
<td>Surgical wound infection</td>
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</tbody>
</table>

| Keywords | Spine surgery Spinal surgery Specific procedures | Vancomycin Powder Intraoperative | Surgical wound infection Surgical site infection SSI |
Search for Literature

- Search databases such as CINAHL, PubMed, and MEDLINE.
  - Search methods differ between databases.
  - In 2019, Centura will have systemwide access to CINAHL, MEDLINE, and Cochrane, among other databases.
- Use both thesaurus terms and keywords.
  - Thesaurus terms differ between databases.
- Focus on peer-reviewed journals.
- Beware of predatory journals.
- Consider “snowballing.”
- Save your search.
Choose the Appropriate Databases

• CINAHL: Nursing and allied health
• MEDLINE: Medicine, nursing, and pharmacy
• Cochrane: Systematic reviews of healthcare topics
Determine the Level of Evidence

- Some publication types offer higher levels of evidence than others.
- There are multiple recognized frameworks for determining level of evidence (e.g., Johns Hopkins model).
- When grading evidence, you are weighing the type of publication, not the content of the article.
- In general, systematic reviews and meta-analyses are of the highest grade; expert opinion is of the lowest.
Johns Hopkins EBP Model

• Level 1 (highest grade): RCTs, systematic reviews of RCTs
• Level 2: Quasi-experimental studies and SRs of RCTs and quasi-experimental studies
• Level 3: Non-experimental, qualitative reviews
• Level 4: Clinical practice guidelines, consensus statements
• Level 5: Literature reviews, QI, case reports
Evaluate Literature
Two Key Elements to Evaluation

• Many elements are important but there are two that are most important

• Credibility- Is the study believable?
  • Qualification of the researcher and ability to do the study

• Integrity- Do I believe the outcome?
  • Robustness of the research method and analysis
Credibility- do we believe you?

Basics- if answer is No; don’t read on!!!
• Researcher’s qualifications
• Conflicts of interest
• Reputation of publication
• Peer review processes
• Timeliness of publication
• Is the literature review recent and comprehensive?
• Does the title accurately describe the article?
• Is there a clear aim, purpose or problem statement?
• Does the abstract and introduction make sense?
Integrity: Was the method robust?

- What are the aims and purpose?
- What was the sample size?
- Is the population representative of those affected? Is it described adequately?
- Was a data collection instrument used? Was it validated?
- Was the intervention described in detail?
  - was interrater reliability described in data collection?
- How was data collected?
- Were procedures listed in a step by step manner?
- Discussion- are the findings linked back to the aims/purpose?
- Limitations and strengths
Integrity Elements
Quantitative Study

• Problem Statement
• Purpose
• Research Question
• Literature Review
• Methods/Procedures
  • Design
  • Sampling Strategy
  • Ethics
  • Measurement Strategy
  • Data Collection Methods
  • Statistical Plan
• Findings/Results
• Conclusions
Integrity Elements Qualitative Study

- Problem Statement
- Purpose
- Research Question
- Literature Review
- Methods/Procedures
  - Phenomenon
  - Research Tradition
  - Sample
  - Ethics
  - Trustworthiness
  - Analysis Plan
- Findings/Results
- Conclusions
Evidence table to summarize credible and reliable articles

**Appendix G**

**Individual Evidence Summary Tool**

<table>
<thead>
<tr>
<th>Date:</th>
<th>EBP Question:</th>
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</table>

<table>
<thead>
<tr>
<th>Article Number</th>
<th>Author and Date</th>
<th>Evidence Type</th>
<th>Sample, Sample Setting</th>
<th>Findings That Help Answer the EBP Question</th>
<th>Observable Measures</th>
<th>Limitations</th>
<th>Evidence Level, Quality</th>
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<tbody>
<tr>
<td>N/A</td>
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https://www.hopkinsmedicine.org/evidence-based-practice
Discuss the relevance of the literature. Is there evidence for a change?

- How much is there?
- What is the strength?
- Is there consistency in findings?
- Does the pop. fit?
Clinical significance to your practice?

- Would you translate to your practice?

- Was consistency across the studies found?

- Pros/Cons
  - Does it fit our population?
  - Does it fit our problem?
  - Is the intervention something we can do?
  - Patient perception: What was the drop out rate in the studies? Are patients likely to respond positively?
  - Is there a clear correlation to the outcome we are seeking?
Tools to Appraise the Evidence

- [https://www.nursingcenter.com/nursingcenter_redesign/media/EBP/AJNseries/Critical2.pdf](https://www.nursingcenter.com/nursingcenter_redesign/media/EBP/AJNseries/Critical2.pdf)
- [https://www.unm.edu/~unmvclib/cascade/handouts/critiquingresearchpart1.pdf](https://www.unm.edu/~unmvclib/cascade/handouts/critiquingresearchpart1.pdf)
- [https://www.cebm.net/2014/06/critical-appraisal/](https://www.cebm.net/2014/06/critical-appraisal/)
Plan Practice Change: Why do changes fail?

“Planning without action is futile, action without planning is fatal.”

Cornelius Fichtner

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Are you ready to change?
Key questions to ask

• Why is the change needed?
• Is there urgency for the change?
• Do frontline staff understand the reason for the change?
• Do organizational leaders support the change?
• Do we have the resources we need for the change?
Characteristics that influence acceptance or rejection: Rogers Diffusion of Innovation

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Question</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantage</td>
<td>What will this improve for my practice?</td>
<td>Clearly identify the problem and benefit</td>
</tr>
<tr>
<td>Compatibility</td>
<td>Does this easily fit into my daily work?</td>
<td>Identify where the new process fits. What does it replace?</td>
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<tr>
<td>Complexity</td>
<td>How difficult is it to use or implement?</td>
<td>Assure that the intervention is readily accessible</td>
</tr>
<tr>
<td>Trialability</td>
<td>Can we try it first?</td>
<td>Pilot</td>
</tr>
<tr>
<td>Observability</td>
<td>Will others notice the effect?</td>
<td>Clear, visible metrics</td>
</tr>
</tbody>
</table>
Identify the Big 6: what, who, where, when, why and how

- Why? What is the rationale?
- What are you attempting to implement?
  - Define succinctly
- Who are the participants or subjects?
  - All patients? Only patients who meet a certain criteria?
- Where is it going to take place?
  - One unit, multiples?
- When are you going to implement and for how long?
- How are you going to disseminate the change?
- How are you going to assure compliance?
- How are you going to measure the outcome?
Feasibility issues: cost, time, resources, risk

<table>
<thead>
<tr>
<th>Project Background (keep this brief)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General aims</td>
</tr>
<tr>
<td>Initial Risks</td>
</tr>
<tr>
<td>Expected Outcomes</td>
</tr>
<tr>
<td>Benefits of Implementing This Project</td>
</tr>
<tr>
<td>Initial Estimates of Cost and Time</td>
</tr>
<tr>
<td>$:</td>
</tr>
<tr>
<td>Time:</td>
</tr>
<tr>
<td>Outcome of the Business Case</td>
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<tr>
<td>Decision From (Project Sponsor)</td>
</tr>
<tr>
<td>Date</td>
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</tbody>
</table>
Gaining “Buy in”: Consider a survey

<table>
<thead>
<tr>
<th>Views on Pressure Ulcer Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your role: ______________________ Date: __________________</td>
</tr>
<tr>
<td>Strongly agree</td>
</tr>
<tr>
<td>1. All patients are at potential risk of developing pressure ulcers</td>
</tr>
<tr>
<td>2. Pressure ulcer prevention is time consuming for me to carry out</td>
</tr>
<tr>
<td>3. In my opinion, patients tend not to get as many pressure ulcers nowadays</td>
</tr>
<tr>
<td>4. I do not need to concern myself with pressure ulcer prevention in my practice</td>
</tr>
<tr>
<td>5. Pressure ulcer treatment is a greater priority than pressure ulcer prevention</td>
</tr>
<tr>
<td>6. Continuous assessment of patients will give an accurate account of their pressure ulcer risk</td>
</tr>
<tr>
<td>7. Most pressure ulcers can be avoided</td>
</tr>
<tr>
<td>8. I am less interested in pressure ulcer prevention than other aspects of care</td>
</tr>
<tr>
<td>9. My clinical judgment is better than any pressure ulcer risk assessment tool available to me</td>
</tr>
<tr>
<td>10. In comparison with other areas of care, pressure ulcer prevention is a low priority for me</td>
</tr>
<tr>
<td>11. Pressure ulcer risk assessment should be regularly carried out on all patients during their stay in hospital</td>
</tr>
</tbody>
</table>

https://www.ahrq.gov/professionals/systems/hospital/pressureulcertoolkit
Understand context and identify barriers and challenges upfront

- Do we have the resources?
- Do we have executive support?
- Is this going to be difficult to implement? Lots of training?
- Does it place burden on one discipline or another?
- Will we be able to monitor compliance accurately?
- How are we going to communicate the change?
Implement Change in Practice
Engaging, Educating, Executing - Communication and Visibility

- Engage clinician in your plan - The buy in
  - Is there a local champion?
  - Who is the implementation team?

- Educate clinician on the process - Clear direction
  - Checklists
  - Algorithms
  - Tool kits

- Execute -
  - Prepare the environment for the change - all tools should be at hand
  - Resources on the “go live” date
## Communicating the project

**Appendix J**

**Dissemination Tool**

1. Think about the project findings and practice change initiative. What is the most important information you need to convey?

<table>
<thead>
<tr>
<th>Audience</th>
<th>Key Message</th>
<th>Communication Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interdisciplinary stakeholders</td>
<td></td>
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<tr>
<td>Organizational leadership</td>
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<tr>
<td>Departmental leadership</td>
<td></td>
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<tr>
<td>Frontline staff</td>
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<tr>
<td>External community (publications, posters, and presentations)</td>
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</tbody>
</table>
Evaluate Practice Change

If you can not measure it, you can not improve it.

~ Lord Kelvin
Metrics: Structure, Process, Outcome

• Include one of each if possible
• Will the metric be sensitive to change?
• Is the metric easily available?
• Is the outcome reliable and consistent?
• Who will measure the outcome and will training be needed?
We extend the healing ministry of Christ by caring for those who are ill and by nurturing the health of the people in our communities.

Thank you