Comparing and contrasting nursing research, evidence-based practice, and quality improvement: A differential diagnosis.

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Capital District Nursing Research Alliance
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Session Objectives

• At the end of this session participants will be able to:
  – define nursing research, evidence-based practice, and quality improvement; and the nurse’s role in each area; and,
  – differentiate among nursing research, evidence-based practice, and quality improvement.

New Magnet Model

ANCC, 2009
Sources of Nurses' Knowledge

1. Colleagues
2. Information learned in nursing school
3. Information learned about patients
4. In-services
5. Personal experience
6. Policies and procedures

Thompson, 2003

“...many traditions are so embedded in our culture that their validity or usefulness has never been challenged or evaluated.”

Polit, Beck, & Hungler, 2005

Overview

• Confusion exists about:
  – the similarities and differences in EBP, NR, and QI
  – what needs IRB approval
  – what may be published
  – what information is strong enough to change or confirm practice
Nursing Research/EBP/QI

**Questioning Practice**

Nursing Research → EBP → QI

- To generate new knowledge
- To change practice
- To improve patient care processes

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**Nursing Research**

“Nursing research is a formal, systematic, & rigorous process of inquiry used to generate & test theories about the health-related experiences of human beings within their environments & about the actions & processes that nurses use in practice.”

Fawcett & Garity, 2009

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**Purposes of Nursing Research**

- The purposes of nursing research are to:
  - answer the research question
  - test the hypothesis
  - describe
  - explain
  - predict
  - explore
  - discover
Nurse’s Role in Research

- **Standards of Professional Performance**

  “The registered nurse actively participates in research activities at various levels appropriate to the nurse’s level of education and position.”

  - American Nurses Association, 2004

Nurses’ Roles in Nursing Research

- **Activities may include:**
  - identifying clinical problems specific to nursing research (patient care & nursing practice)
  - participating in data collection (surveys, pilot projects, formal studies)
  - participating in formal committee or program
  - sharing research activities &/or findings with peers & others
  - conducting research
  - critically analyzing & interpreting research for application to practice
  - using research findings in the development of policies, procedures, and standards of practice in patient care
  - incorporating research as a basis for learning

  - American Nurses Association, 2004

Roles of the AD Graduate

- Understand and have an awareness of the value and relevance of research in nursing
- Help identify problems in nursing practice
- Assist in data collection
- Use research findings in practice
- Develop and revise or implement clinical standards, protocols, and critical paths

  - LoBiondo-Wood & Haber, 2006
Roles of the BS Graduate

- Be intelligent consumers of research
- Understand every step in the research process
- Understand how each step relates to the others
- Critically read and understand research reports, studies
- Determine strength of evidence of studies

LoBiondo-Wood & Haber, 2006

Roles of the BS Graduate

- Generate clinical questions to identify nursing research projects
- Participate in the implementation of nursing research
- Disseminate findings of nursing research studies
- Participate on nursing research-related committees (NR, QI, EBP)

LoBiondo-Wood & Haber, 2006

Roles of the Master’s Graduate

- Be active research team member
- Assume the role of clinical expert
- Collaborate with an experienced researcher in proposal development, data collection, data analysis, and interpretation
- Take active role in quality improvement projects to improve nursing practice in the clinical situation

LoBiondo-Wood & Haber, 2006
Roles of the Doctorally-Prepared Nurse

- Appraise, design, and conduct research
- Serve as role model, mentor, guide, and encourage nurses to engage in the nursing research process
- Collaborate and consult with social, educational, government, and health care institutions in research
- Disseminate research findings to the scientific community

LoBiondo-Wood & Haber, 2006

Nursing Research

- Research Methods/Approaches
  - Qualitative research
  - Quantitative research
- Determined by purpose and research question

Evidence-Based Practice

EBP is the integration of:
- best clinical research evidence
- clinical expertise
- patient values

Sackett, et al., 2000
Purposes of Evidence-Based Practice

• The purposes of EBP are to:
  – translate research into practice
  – increase the effectiveness of treatment
  – encourage some consistency in practice
  – utilize interdisciplinary approach in process
  – encourage practice not based on tradition
    “...because that’s the way we have always done it...”

Nurses’ Roles in EBP

• Selected Standards of Practice
  – “Identifies expected outcomes that incorporate scientific evidence and are achievable through implementation of evidence-based practices.”
  – “Supports the use of clinical guidelines linked to positive patient outcomes.”
  – “Integrates current trends and research affecting care in the planning process.”
  – “Identifies assessment, diagnostic strategies, and therapeutic interventions within the plan that reflect current evidence, including data, research literature, and expert clinical knowledge.”

American Nurses Association, 2004

Nurses’ Roles in EBP

• Identify the clinical problem
• Search for the best evidence
• Critically appraise the evidence
• Synthesize evidence
• Apply the evidence
• Evaluate outcomes
EBP Process
• Ask a focused clinical question
• Find the best clinical evidence
• Critically appraise the evidence
• Apply evidence to practice
• Evaluate outcomes

Asking A Clinical Question
• P  population
• I  intervention
• C  comparison
• O  outcome

Palliative Sedation Protocol - RGH
• P – Adult patients with refractory symptoms/life expectancy < two weeks.
• I – Palliative sedation
• C – Pain management strategies that are minimally or ineffective for refractory symptoms
• O – Safe delivery of palliative sedation in adult patients with refractory symptoms
Establishing and Advancing Evidence-Based Practice

EBP at RGH
- Evidence-Based Practice Advisory
- Evidence-Based Practice Liaisons
- Evidence-Based Practice Reviews
  - Pathways
  - Protocols

Quality Improvement
“The goal of quality improvement studies is to evaluate the effectiveness of nursing interventions and to provide direction for further improvement in the achievement of quality clinical outcomes and cost effectiveness.”
Purposes of Quality Improvement

- The purposes of QI are to:
  - bring about immediate improvement of care in a specific setting
  - to compare organization to standards or benchmarks
  - increase cost effectiveness
  - make processes more efficient/better

Baily, et al., 2006; Bernard & Groman, 2003; Reinhardt & Ray, 2003

Nurses’ Roles in QI

- Standards of Professional Performance

  “The registered nurse systematically enhances the quality and effectiveness of nursing practice...
  - Uses the results of quality improvement activities to initiate changes in nursing practice and in the healthcare delivery system.
  - Incorporates new knowledge to initiate changes in nursing practice if desired outcomes are not achieved...
  - Participates in quality improvement activities…”

American Nurses Association, 2004

Nurses’ Roles in QI

- Identify practice that requires improvement
- Collect data
- Analyze data
- Generate recommendations
- Implement processes for change
- Analyze organizational barriers
- Analyze cost effectiveness of changes
- Implement processes to decrease barriers and cost

American Nurses Association, 2004
PDCA-Cycle

- Iterative strategy within quality management utilized in QI projects at RGH.

1. Plan (create objectives & processes)
2. Do (implement the above)
3. Check (evaluate & monitor defined processes)
4. Act (modify processes for improvement)

PDCA-Cycle example

- From needs assessment a community hospital decided town residents ≥50 years should receive education on how to recognize symptoms & how to reduce causes of hypertension.
- Educational program was planned (plan) & implemented (do). When participant target fell below 70%, reasons for drop were determined (check). Action was taken to increase recruitment (act).

Comparing & Contrasting

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<thead>
<tr>
<th></th>
<th>Nursing Research</th>
<th>EBP</th>
<th>QI</th>
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<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>-Generate new knowledge</td>
<td>-Change practice</td>
<td>-Improve patient care</td>
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<tr>
<td><strong>Method</strong></td>
<td>-Qualitative - Quantitative - Long - Complex</td>
<td>-Qualitative articles - Quantitative articles - Expert opinion - Guidelines - Lengthy</td>
<td>-PDCA - Short - Simplistic</td>
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<tr>
<td>Sample</td>
<td>EBP</td>
<td>QI</td>
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<tr>
<td>-Related to</td>
<td>-Related to identified population</td>
<td>-Unit or organization</td>
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<td>purpose &amp;</td>
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<td>research question</td>
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<tr>
<td>-Representative</td>
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<th>Data Collection</th>
<th>EBP</th>
<th>QI</th>
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<tr>
<td>-Ensure external</td>
<td>-Critical appraisal of articles</td>
<td>-Short term</td>
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<td>and internal</td>
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<td>validity &amp;</td>
<td>-Searching for best evidence</td>
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<td>trustworthiness</td>
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<td>-Long term</td>
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<tr>
<th>Human Subjects</th>
<th>EBP</th>
<th>QI</th>
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<tr>
<td>-IRB</td>
<td>-Assess IRB process described in article</td>
<td>-Old school – no IRB</td>
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<th>Results</th>
<th>EBP</th>
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<td>-Seeks to</td>
<td>-Seeks to impact practice</td>
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<tr>
<th>Implications</th>
<th>EBP</th>
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<tr>
<td>-Comprehensive</td>
<td>-Use of research to impact practice</td>
<td>-Change processes</td>
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<td>understanding</td>
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<td>-Decrease cost</td>
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<td>-Increase efficiency</td>
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<td>phenomenon</td>
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<td>-Increase patient</td>
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<td>- QI implications</td>
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<td>&amp; staff safety</td>
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<td>-Improve satisfaction</td>
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<td>-Standards of practice</td>
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QI and Ethical Considerations

IRB must be considered regarding:
– Level of risk
– Level of benefit
– Confidentiality/Anonymity
– Generalizable to a larger population
– Plans to publish results & recommendations

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References

American Nurses Credentialing Center (2008). Core Measure Data Dictionary. Silver Spring, MD: Author