Narrowing the Research-Practice Gap:
DNP-prepared faculty leading
RN-to-BSN students to engage in Evidence-Based Practice

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Purpose

• To describe and share an innovative example of how one RN-to-BSN program's curriculum and academic-practice partnerships are preparing practicing nurses to engage in evidence-based practice (EBP).
By 2020, **90%** of clinical decisions should be grounded in the latest clinical information and best available evidence.

(IOM Roundtable on Evidence-Based Medicine, 2006)
Western Washington University
Bellingham, WA

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## WWU RN-to-BSN Program Curriculum

<table>
<thead>
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<th>Quarter 1.</th>
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Strategies to teach EBP
Objective #1

• Describe possible strategies (i.e., exercises and approaches) for teaching RN-to-BSN students to:
  • Develop a clinical inquiry question,
  • Search for the best evidence,
  • Critically appraise the evidence, and
  • Propose feasible recommendations for evidence-based practice (EBP)
Theory + Practice
NURS 402 & NURS 403

NURS 402 (4 credit didactic)
• What is the difference between research and EBP?
• How do you generate and write a PICO question?
• How do you search for and appraise evidence?
• How do you synthesize evidence?
• What is a practice model?

NURS 403 (1 credit practicum)
• Agency staff identify a current clinical topic of interest
• Students complete a PICO project on the topic of interest:
• Conduct extensive literature reviews on topic & make evidence-based recommendations
<table>
<thead>
<tr>
<th>Past PICO Topics—EXAMPLES</th>
<th>Partner agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geriatric nutritional interventions and pressure ulcer healing rates</td>
<td>Local hospital</td>
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<tr>
<td>Nurse education on non-pharmacological pain management strategies</td>
<td>Local hospital</td>
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<tr>
<td>Debriefing after Code Blue</td>
<td>Local hospital</td>
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<tr>
<td>Leadership and succession programs</td>
<td>Local hospital</td>
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<tr>
<td>Stock epinephrine auto injectors for school districts</td>
<td>Regional school district office</td>
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<tr>
<td>Best practices in Employee Wellness Programs</td>
<td>Local health department</td>
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<tr>
<td>Best practices for central line care in home care/hospice</td>
<td>Local home hospice agency</td>
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<tr>
<td>Caregiver education to promote sexual health for clients living with intellectual and developmental disabilities</td>
<td>Local agency serving clients with intellectual/developmental disabilities</td>
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Theory/Didactic course assignments

1. Synthesis skills: Weekly Double Entry Journal on assigned readings and articles
   • They say/I say (What/So what?)

2. Individual Source Evaluation Grid assignment
   • Analyze 4-6 peer-reviewed sources
   • One source should be a meta-analysis, meta-synthesis, or systematic review if possible
### Source Evaluation Grid

**Individual Source Evaluation Grid**

Please complete the grid for 4-6 sources

(Boxes will expand as you type information into them)

**Student name:**

**PICO Group Topic:**

**PICO Question:**

<table>
<thead>
<tr>
<th>Citation (APA)</th>
<th>Purpose</th>
<th>Design</th>
<th>Sample</th>
<th>Levels of Measurement (if applicable. See ch. 10)</th>
<th>Results/Conclusions</th>
<th>Level of Evidence per the Evidence Hierarchy</th>
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3. In-class Exercises
   • Levels of Measurement individual and group quiz
   • Validity and Reliability exercise
   • Jigsaw and jeopardy on quantitative designs & evidence hierarchy

4. Individual Scholarly Paper
   • Two drafts reviewed by instructor, feedback given
   • Two peer reviews completed using peer feedback guide
   • Final draft with sections:
     • Intro/background, Purpose, Methods, Findings/Synthesis of Literature, Recommendations, Implications for Practice, Conclusion
Propose feasible recommendations

NURS 423 Organizational Change Practice Experience course (Quarter 3)
• CQI tools: PDSA cycles, process flowcharts, fishbone diagram
  • Institute for Healthcare Improvement Open School online modules
• Intro to implementation science
• Stakeholder analysis
• Donabedian’s Framework: Structure-Process-Outcome
• Logic model
• Lewin’s Force Field Analysis
• Change theories
Objective #2

- Describe skills to enhance student engagement in building strong teamwork, communication, leadership, and advocacy for organizational change for evidence-based practice.
Practice Experience course details

- 1 credit course = 30 practice hours
- Practice Experience mentors may or may not be nurses
- Each PICO project has 4-5 students assigned to the same topic
- Students are assigned to one of their top three topic choices to increase student interest and engagement

Students are also completing the Health Policy, Leadership, and U.S. Healthcare course
## Progression of Topics & Assignments

<table>
<thead>
<tr>
<th>Module</th>
<th>Didactic Course Topics (NURS 402, 4 credit course)</th>
<th>Practice Experience Assignments (NURS 403, 1 credit course)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Starting with a spirit of inquiry</td>
<td></td>
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<tr>
<td>2</td>
<td>PICO Questions and linking theory, research, &amp; practice</td>
<td>Project Work Plan &amp; Contract; Preliminary PICO question</td>
</tr>
<tr>
<td>3</td>
<td>Finding sources of evidence</td>
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<tr>
<td>4</td>
<td>Appraising evidence</td>
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<tr>
<td>5</td>
<td>Quantitative designs</td>
<td></td>
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<tr>
<td>6</td>
<td>Qualitative designs</td>
<td>(Individual Source Evaluation grid)</td>
</tr>
<tr>
<td>7</td>
<td>Interpreting data &amp; synthesizing evidence</td>
<td>Group Source Evaluation grid &amp; Selection criteria write-up</td>
</tr>
<tr>
<td>8</td>
<td>Practice models and planning for change</td>
<td>Draft poster</td>
</tr>
<tr>
<td>9</td>
<td>Evaluating outcomes</td>
<td>Stakeholder analysis</td>
</tr>
<tr>
<td>10</td>
<td>Translational Research for EBP</td>
<td>Poster presentation &amp; Evaluation of contract &amp; work plan</td>
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PICO Project Small Group Work

NURS 403 Translational Research for Evidence-Based Practice
Practice Experience
Slides authored by Mary A. Baroni, PhD, RN
Keeping Ourselves & Each Other Accountable
Negotiating the Process – PICO Project Contract

- Individual goals for outcome to consensus on negotiated shared goal
- Identified Task & Process roles needed
- Assessment of member skills and role preferences
- Agreed ground rules/processes for:
  - Leadership/Coordination – Single person or rotated responsibility
  - Decision-making/delegation
  - Monitoring progress – Oversight of Project Workplan
  - Managing missed meetings or target dates – Accountability plan
  - Monitoring for possible concerns/conflicts & plans for addressing conflict
- Frequency & venues for meeting
- Frequency & venues for communication b/t meetings
Possible PICO Project Roles

1. PICO Project Contract Coordinator (Co-Facilitator for Group)
2. PICO Work Plan Coordinator (Co-Facilitator for Group)
3. PICO Question & Tracking of Data Base Searches/KEY Words
4. PICO Group Source Evaluation Grid
5. PICO Poster Coordinator (s)
6. PICO Project Presentation Coordinator
7. PICO Liaison between Small Group, PICO Project Mentor & N403 Faculty

**QUESTION:** *What types of skills are needed for these team roles?*
**PICO Project Self and Peer Evaluation**

<table>
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Please rate yourself/your peer on your/their small group participation this quarter using the following scale:

- 5=always
- 4=frequently
- 3=sometimes
- 4=rarely
- 1=never

| This group member was prepared to contribute to the group and stayed on task |
| This group member listened respectfully to other group members & encouraged others’ participation |
| This group member participated in group discussions and communicated in a timely manner |

What overall rating would you give this group member’s performance?

- 5=excellent
- 4=very good
- 3=good
- 2=fair
- 1=poor

Additional comments:

*Average of your Peer Evaluations score is worth up to 5 points for your N403 grade*
Increasing student engagement

- Project work may result in tangible real-world practice changes that aim to improve patient and client outcomes!

- Partnership with local hospital on their journey to ANCC Magnet designation
  - Implemented projects initiated by our students through the pilot, replication, and adoption phases:
    1. Quiet zones for medication administration
    2. Evidence-based diversional activities for patients hospitalized with dementia to avoid using restraints and unnecessary medication.
Student Feedback

End-of-quarter course evaluations for NURS 402 & 403
What changes could be made to improve the teaching or content of the course?

- “Felt somewhat disconnected from the practice setting we were doing research for.”
- “Maybe more hands on community work? Maybe this is spring quarter?”
- “Our PICO topic was rather difficult and broad and not one I would offer in future quarters.”
- “Too many double entry journals! Maybe other ways to discuss and analyze the reading.”
- “Slight increase in relation to our current practice?”
What aspects of the teaching or course content do you feel were especially good?

- “I am very glad we had time in class designated to expectations of the hierarchy of evidence. Without that, I would’ve been very lost so thank you!”
- “The writing assignment for EBP helped to enhance my knowledge of synthesis of information and review of literature.”
- “The instructor gave us the tools and resources to develop a PICO question and to be able to present effectively.”
- “I appreciated the flow and organization of the course. Double entry journals related to what phase of the writing assignment we were in.”
- “While group projects have been a challenge for me in the past, I appreciated the devotion to a contract/clear expectations.”
- “The community outreach part was interesting and enjoyable.”
Objective #3

• Describe ways in which DNP-prepared nursing professionals can lead collaborative partnerships across settings (academic, administrative, clinical) and sectors (public health, human services, public education) to provide students learning opportunities to participate in initial steps of an EBP project.
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<th>Practice Experience Topics (Two quarter projects)</th>
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<td>Stock epinephrine auto injectors (EAI) for school districts</td>
<td>Developed a toolkit containing example EAI protocols for tx of anaphylaxis symptoms</td>
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<td>Best practices for vision screening among school-aged children</td>
<td>Surveyed school RNs about current vision screening practices and provided latest EBP</td>
</tr>
<tr>
<td>Caregiver education to promote sexual health for clients living with intellectual and developmental disabilities (IDD)</td>
<td>Provided background information to staff educators who will develop an approved continuing education module for agency staff</td>
</tr>
<tr>
<td>Staff education on therapeutic recreation interventions for clients with IDD</td>
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<tr>
<td>Creating a coalition to prevent falls among community-dwelling seniors</td>
<td>Identified possible coalition participants and organized first meeting to be led by PE mentor</td>
</tr>
<tr>
<td>Peer counselors to support homeless clients living with substance abuse</td>
<td>Surveyed and interviewed staff and clients about their knowledge/awareness of peer counselors</td>
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DNP faculty leading collaborative cross-sector partnerships for EBP projects

- Clearly articulate the "value added" and unique skill set that RNs contribute
- Translate the goals and outcomes of a PICO project without using nursing-specific terminology
- Emphasize that the students are already licensed and practicing RNs
- Share concrete examples of past project work and set clear project scope and expectations
- Clearly articulate roles and responsibilities of agency mentor, students, and practice faculty
- Maintain consistent communication and availability to mentors
Student evaluations
End-of-quarter course evaluations on two-quarter project topics
NURS 403 & NURS 423/433
Practice Experience Mentor Feedback
End-of-quarter evaluation comments
NURS 423/433
Lessons learned
Lessons learned

• How to manage PE agency mentor/staff turnover?
  • Developed practice site recruitment document outlining our courses, project needs, expectations, etc.

• Structuring learning opportunities for program and systems-level projects.
  • Learning how to balance giving space for students to learn community/organizational assessment skills AND ensuring that their project scope is realistic, feasible, and meets course learning objectives.
Lessons learned *continued*

• How to support students when unexpected factors not identified in the PICO project/lit review phase arise during the assessment and planning for implementation phase?
  • Emphasize the art of translating research into practice!
  • Flexibility & adaptability are crucial for systems-level work

• How to motivate students to continue the project if the agency does not have the current capacity or resources to act on their recommendations?
  • Introduce students to *implementation science* concepts
  • The slow pace of system-level change
  • Building skills for resilience and patience is useful for leading practice change
An average of 17 years is required to translate new research into practice.

IOM, Crossing the Quality Chasm, 2001

(PartnerHealth, 2014)
Questions?

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