Nursing, Respiratory Care and Social Work Undergraduate Students’ Practice, Attitudes, and Knowledge/Skills with Evidence-based Practice

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OBJECTIVES

• Discuss educational programming so that students have the skill set during and post-graduation to implement and utilize EBP for decision-making.

• Discuss inter-professional course and curriculum design to foster students' EBP competencies.
INTRODUCTION

- Importance of evidence based practice (EBP) in education
- Funded by a MSU Faculty Research Grant
- IPE study - Nursing, Respiratory, and Social Work
- Integrated of EBP in curricula and meeting accreditation standards
PURPOSE OF THE STUDY

- Identify level of practice of, attitudes toward, and knowledge/skills with evidence-based practice (EBP) (Upton, Scurlock- Evans, & Upton, 2016).
- Identify students’ engagement and implementation of EBP competencies.
- Find patterns of adoption and implementation.
- Highlight how students can best be supported during their academics.
- Results of this study will inform course and curriculum design.
RESEARCH QUESTIONS

- What is the level of practice, attitudes towards, and knowledge/skill level of EBP in undergraduate nursing, respiratory care, and social work undergraduate students?

- What are the barriers and facilitators to foster EBP competency in nursing, respiratory care, and social work undergraduate students?

- Describe and compare the practice of, attitudes toward, and knowledge/skills of EBP with in a cross-sectional sample of undergraduate students in nursing, respiratory care, and social work.

- Categorize and describe the overall self-reported implementation and skill in adopting EBP competencies in daily practice.
OPERATIONAL DEFINITIONS

• **EBP** is a process for making decisions about the care provided to patients that combines the proficiency of healthcare professionals with the best up-to-date evidence while giving consideration to the preferences and beliefs/values of the patients in order to improve outcomes (Melnyk & Fineout-Overholt, 2015).

• Perceived level of **practice** clinical effectiveness initiative at a general level.

• **Attitudes** towards clinical effectiveness and evidence-based practice.

• Perceived knowledge of the individual component **knowledge/skills** of evidence-based practice (e.g. research and information technology)
The descriptive mixed methods study was a cross sectional design.

The target population was a convenience sample of nursing (n=336), respiratory (n=147), and social work (n=50) undergraduate students.

Student evidence based practice questionnaire (S-EBPQ)

A questionnaire designed to gather information and opinions on the use of evidence based practice amongst health students.
STUDY PROCEDURES

• The study was approved by the MSU institutional review board
• Gained approval to use the student evidence based practice questionnaire (S-EBPQ) from Upton & Upton.
• Number of Items: 21
• Cronbach’s Alpha 0.92
• Data collection:
  • Quantitative data were recorded and analyzed using SPSS
  • Qualitative data was coded and analyzed for themes.
Response Rate (RR)

Nursing n=271 RR = 81%
Respiratory Care n= 56 RR = 38%
Social Work n= 40 RR = 80%
RESULTS
How many respondents have heard of EBP

- Respiratory Care Program: 24 Yes, 5 No
- Social Work Program: 34 Yes, 5 No
- Wilson School of Nursing: 251 Yes, 20 No
- Respiratory Care Online Program: 14 Yes, 3 No

- 60% Yes
- 85% Yes
- 93% Yes
- 87% Yes
Formulated a clearly answerable question as the beginning of the process to filling the gap (on a scale from 1-7)

- Respiratory Care Program
- Social Work Program
- Wilson School of Nursing
- Respiratory Care Online Program

1 (Never) 2 3 4 5 6 7 (Frequently)
Integrate the evidence found with their expertise (On a scale of 1-7)

- Respiratory Care Program
- Social Work Program
- Wilson School of Nursing Program
- Respiratory Care Online Program

<table>
<thead>
<tr>
<th>Scale</th>
<th>Respiratory Care Program</th>
<th>Social Work Program</th>
<th>Wilson School of Nursing Program</th>
<th>Respiratory Care Online Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Never)</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
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<td>4</td>
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<td>5</td>
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<td>6</td>
<td>32</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>7 (Frequently)</td>
<td>7</td>
<td>3</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>
Students rated their research skills on a scale from 1-7

- Respiratory Care Program
- Social Work Program
- Wilson School of Nursing
- Respiratory Care Online Program
Ability to identify gaps in your professional practice (on a scale from 1-7)

- Respiratory Care Program
- Social Work Program
- Wilson School of Nursing
- Respiratory Care Online Program

Scores:
- Respiratory Care Program: 8, 15, 18, 85
- Social Work Program: 0, 0, 0, 0
- Wilson School of Nursing: 3, 1, 1, 0
- Respiratory Care Online Program: 13, 4, 2, 0

Graph shows the distribution of scores across different programs.
Ability to apply information to individual cases (on a scale 1-7)

- Respiratory Care Program
- Social Work Program
- Wilson School of Nursing
- Respiratory Care Online Program

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OVERALL - PRACTICE OF

Means

Formulate a Question: 4.46
Find Evidence: 4.67
Critical Appraisal: 4.02
Integrate Evidence: 4.49
Evaluate Outcomes: 4.62
Share Information: 4.10
OVERALL - ATTITUDE

I welcome questions on my practice: 5.75
EBP is fundamental to professional practice: 5.86
My practice has changed because of evidence I have found: 5.18

Means: 5.18
OVERALL - KNOWLEDGE/SKILLS

Means

<table>
<thead>
<tr>
<th>Skill</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Skills</td>
<td>4.43</td>
</tr>
<tr>
<td>Knowledge of How to Retrieve Evidence</td>
<td>4.96</td>
</tr>
<tr>
<td>Critically Appraise Against a Set Standard</td>
<td>4.46</td>
</tr>
<tr>
<td>Determine How Useful the Material Is</td>
<td>4.93</td>
</tr>
<tr>
<td>Identify Gaps</td>
<td>4.52</td>
</tr>
<tr>
<td>Share Ideas with Colleagues</td>
<td>4.96</td>
</tr>
</tbody>
</table>
QUALITATIVE RESULTS

Theme 1: Research
- “If research is data, trust the number. If EBP is trial and error, is there validity?”
- “Research is using secondary data. EBP uses collected data (primary) to support research”
- The participants stated that barriers with research were: (a) having access to it, (b) knowing where to look for it, and (c) that there was a lack of current research due to healthcare workers being “stuck in their own ways”

Theme 2: Patient Safety
- [EBP] “Improves patient safety”
- “Thinking about safety of healthcare”
- “Guidelines to promote safe practice”
Theme 3: Patient Care/Quality Care
- “Guidelines to provide best care”
- “Improves patient care”
- “More we seek the evidence and research...keeps up on the cutting edge of healthcare to ultimately improve patient care”

Theme 4: Evidence
- “Lack of knowledge of how to access EBP”
- “Lack of resources in research with field of study”
- “Important in social work to show families evidence in practice”
- “Evidence that shows a practice is effective in the healthcare world”
DISCUSSION
EBP is the key to safe, quality health care.

The results showed that a majority of the participants lacked research skills.

Believe EBP was fundamental to professional practice.
• Having access to the best available evidence - library/research guides
• Integration of content across courses and clinical settings
• Build confidence and competence in EBP skills
• Student participation in research projects and/or EBP projects
• Cooperation between academic and practice settings
• Interprofessional collaboration to integrate EBP competencies
Integrate EBP into the health science curricula to better prepare students for the work force.

Further research on EBP should be done to see exactly how it should be integrated into the programs.

Results of study will inform the implementation of EBP to meet accreditation standards.
RESOURCES
Questions?