Undergraduate nursing students’ beliefs and readiness to implement evidence based practice

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<th>Faculty Name</th>
<th>Conflict of interest</th>
<th>Employer</th>
<th>Sponsorship/Commercial support</th>
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<tr>
<td>Janelle L. B. Macintosh</td>
<td>None</td>
<td>Brigham Young University College of Nursing</td>
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Funding

Brigham Young University
College of Nursing
Goal and Objectives

- **Goal**
  - The purpose of this presentation is to disseminate findings of a study regarding nursing students’ beliefs and readiness implement evidence based practice (EBP).

- **Objectives**
  1. The learner will be able to discuss the influence innovative teaching methods have on beliefs and implementation of EBP.
  2. The learner will be able to identify the advantages of teaching nursing research using innovating teaching methods.
Evidence based practice (EBP) combines
- Best evidence
- Clinical experience
- Patient preferences

However:
- Take years to implement new evidence into clinical practice
Background

- Classroom setting may not translated into `real world' practice
  - Silos
- Overwhelming amount of literature
- Limited ability to critique

- Gap between evidence and practice
  - Tradition and history
Purpose

- Explore nursing students' perceptions of EBP
  - Before and after an undergraduate scholarly inquiry course
Hypotheses

Students will

1. Increase
   A. Their belief in EBP
   B. Implementation of EBP

2. Report positive feeling regarding teaching methods
Classroom teaching strategies

- Weekly instruction of course material
  - Didactic
  - In person
  - 3 hours
Classroom teaching strategies

- Innovative teaching methods:
  - PowerPoint presentations
  - Video clips
  - Interactive games
  - Hands-on activities
  - A scenario-based written paper about implementation of EBP
Methods

- A convenience sample
  - 240 student nurses
  - Currently enrolled in a scholarly inquiry course
  - Four separate semesters
Methods - tools

- EBP Beliefs Scale
  - Melnyk, Fineout-Overholt, & Mays, 2008

- EBP Implementation Scale
  - Melnyk, Fineout-Overholt, & Mays, 2008

- Demographics
Methods

- The EBP Beliefs Scale is a 16-item questionnaire.
  - General beliefs about the usefulness of EBP
  - 1-5 Likert scale (Strongly Disagree to Strongly Agree)

- The EBP Implementation scale is an 18-item questionnaire.
  - Application of EBP activities in the prior clinical experience
  - 0-4 scale (0 = No application and 4 = Applied this principle 8 or more times)

Melnyk, Fineout-Overholt, & Mays, 2008
Analysis

- Reviewed for missing data and outliers
- Descriptive statistics
- Paired t-tests
  - Assess pretest/posttest changes
    - EBP belief scores
    - EBP implementation scores
Results - n

- 198 participants completed questionnaires
  - 180 at pretest
  - 174 at posttest
  - 156 completed both times
Results - demographics

- Demographics
  - Participants were young
    - M = 21.2 years (2.1)
  - Female
    - 92.4% n=183
      - Male n=9 4.5%
      - Missing 6
  - Reported GPA (grade point average)
    - M = 3.78 (0.19)
      - 4 is highest
Results - demographics

- Students reported working in addition to attending school
  - 63 not working (31.8%)
  - 128 working (64.6%)
  - Missing n=7

![Average hours worked per week diagram]
Results - EBP Beliefs

- EBP belief scores
  - Negatively skewed at time 1
  - Slightly negatively skewed at time 2
  - Univariate outliers noted in pretest and posttest scores for EBP Beliefs

- Cronbach’s alpha for the EBP Beliefs scale
  - .83 at pretest
  - .82 at posttest
Paired t-tests were conducted to assess changes from pretest to posttest for EBP belief scores.

The test for EBP belief was significant:
- \( t(155) = -17.1, p < .001, d = 1.38 \)

EBP belief scores increased:
- Pretest (\( M = 53.3, SD = 6.4 \))
- Posttest (\( M = 62.6, SD = 5.7 \))
Results- EBP Implementation

- EBP implementation scores were positively skewed
  - Time 1 and time 2
  - Univariate outliers noted in pretest and posttest scores

- Cronbach’s alpha for the EBP Implementation
  - .89 at pretest
  - .89 at posttest
Results - EBP implementation

- Paired t-tests

- The test for EBP implementation was significant
  - $t(155) = -15.97$, $p < .001$, $d = 1.3$

- EBP implementation scores increased from
  - Pretest ($M = 9.5$, $SD = 6.9$)
  - Posttest ($M = 20.5$, $SD = 9.3$)
Conclusions

- Improved the beliefs and implementation of EBP
- Corroborated increase
  - Clinical setting
  - EBP beliefs and implementation following education

(Wallen et al., 2010)
Implications

- Students need opportunities apply EBP principles
  - Early and often
  - ‘Real life’ settings

- Collaboration
  - Clinical sites and faculty
    - Promote innovative teaching strategies
    - Engage current and future staff
    - Life-long learning of EBP principles
Future research

- Effect of EBP education strategies in nursing students
  - Throughout education

- Long term retention of EBP beliefs and implementation
  - What happens after school
Limitations

- Convenience sample
- Relatively young
- Primarily female
- One university
- High GPA

- May not generalize well to male or older populations of student nurses
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Thank you &
Questions

