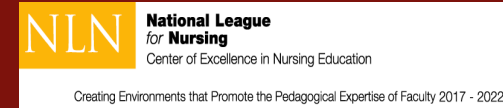
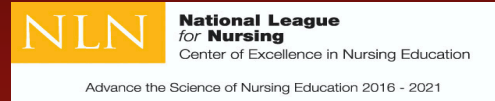




SCHOOL OF NURSING

INDIANA UNIVERSITY



# Evidence-Based Practice Knowledge and Beliefs Among Associate Degree Nursing Students: A National, Multisite Study

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Widener University



# Conflicts of Interest and Disclosures

- Funded by an Alpha Chapter Grant, Sigma Theta Tau International
- The presenters have no real or perceived vested interests or conflicts of interest related to this presentation.
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# Objectives

- Describe EBP knowledge and beliefs of Associate Degree Nursing (ADN/ASN) students
- Describe implications for academe, practice, and research

# **Institute of Medicine (2001) Goal**

- 90% of all clinical decisions will be based on best evidence by 2020**

## **Great focus on teaching EBP to Baccalaureate Nursing (BSN) students**

- American Association of Colleges of Nursing (AACN)
  - The Essentials of Baccalaureate Education for Professional Nursing Practice (AACN, 2008)
- Quality and Safety Education for Nurses (QSEN)
  - Pre-licensure Competencies (Cronenwett et al., 2007)

## ***Less focus on ADN/ASN Programs***

- These programs also prepare nurses for the generalist role***

# **EBP KNOWLEDGE AND BELIEFS OF ADN/ASN STUDENTS**

# Sample

A total of 149 subjects recruited from 5 programs in the Midwest and Northeast regions of the United States.

Subjects were:

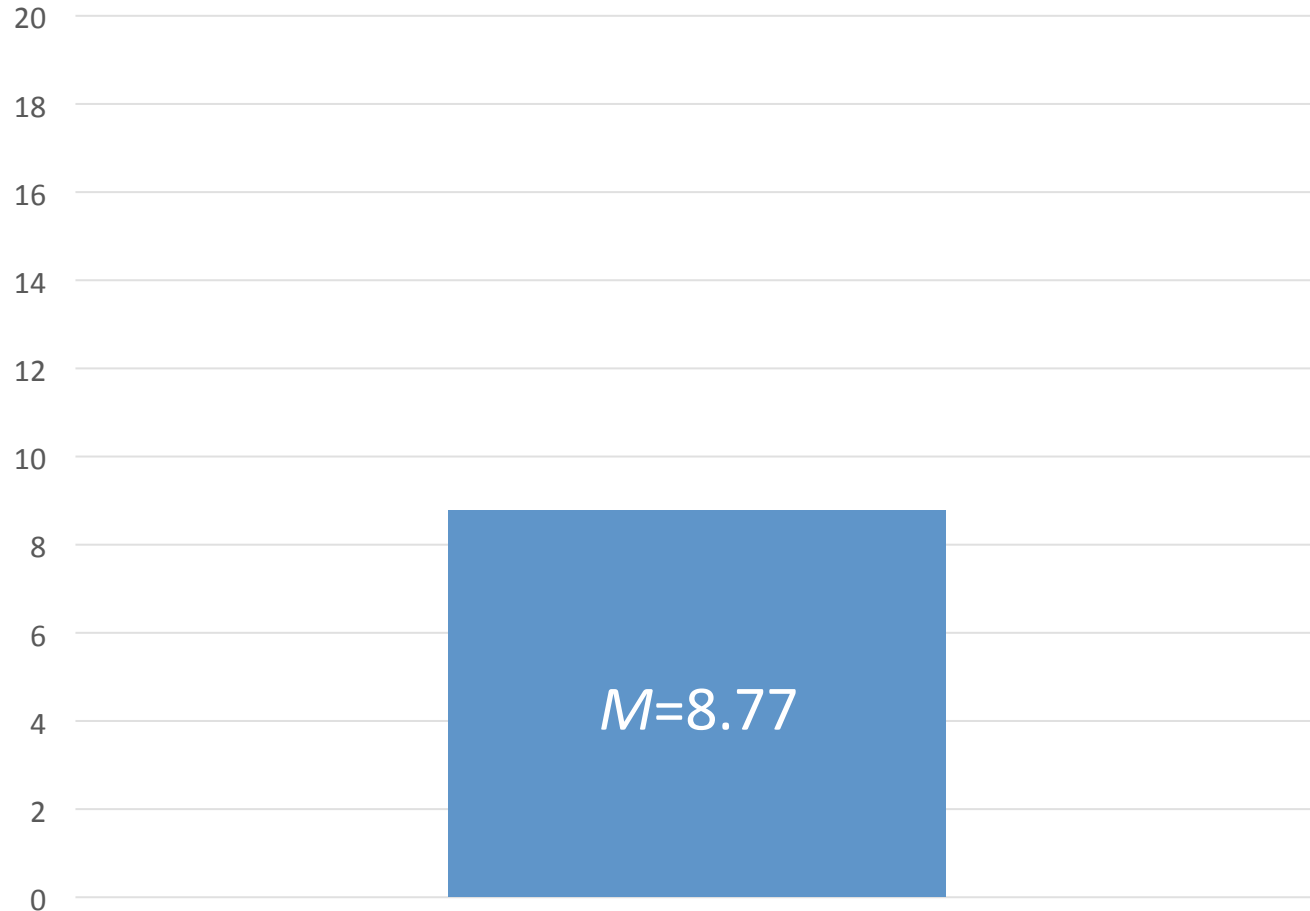
- Female ( $n=122$ , 81.9%)
- Caucasian/White ( $n=124$ , 83.2%)
- English speaking ( $n=142$ , 95.3%)
- Mean age=30.3 years ( $SD=8.98$ , range 19-58 years)

# Study Instruments

- Objective Assessment
  - Evidence-based Practice Knowledge Assessment in Nursing (EKAN; Spurlock & Wonder, 2015)
- Subjective Assessment
  - Evidence-Based Practice Questionnaire (EBPQ; Upton & Upton, 2006)



# Mean EKAN Sum Score



***SD=2.09, Range 3-13***

# Area of EBP Knowledge

ADN/ASN

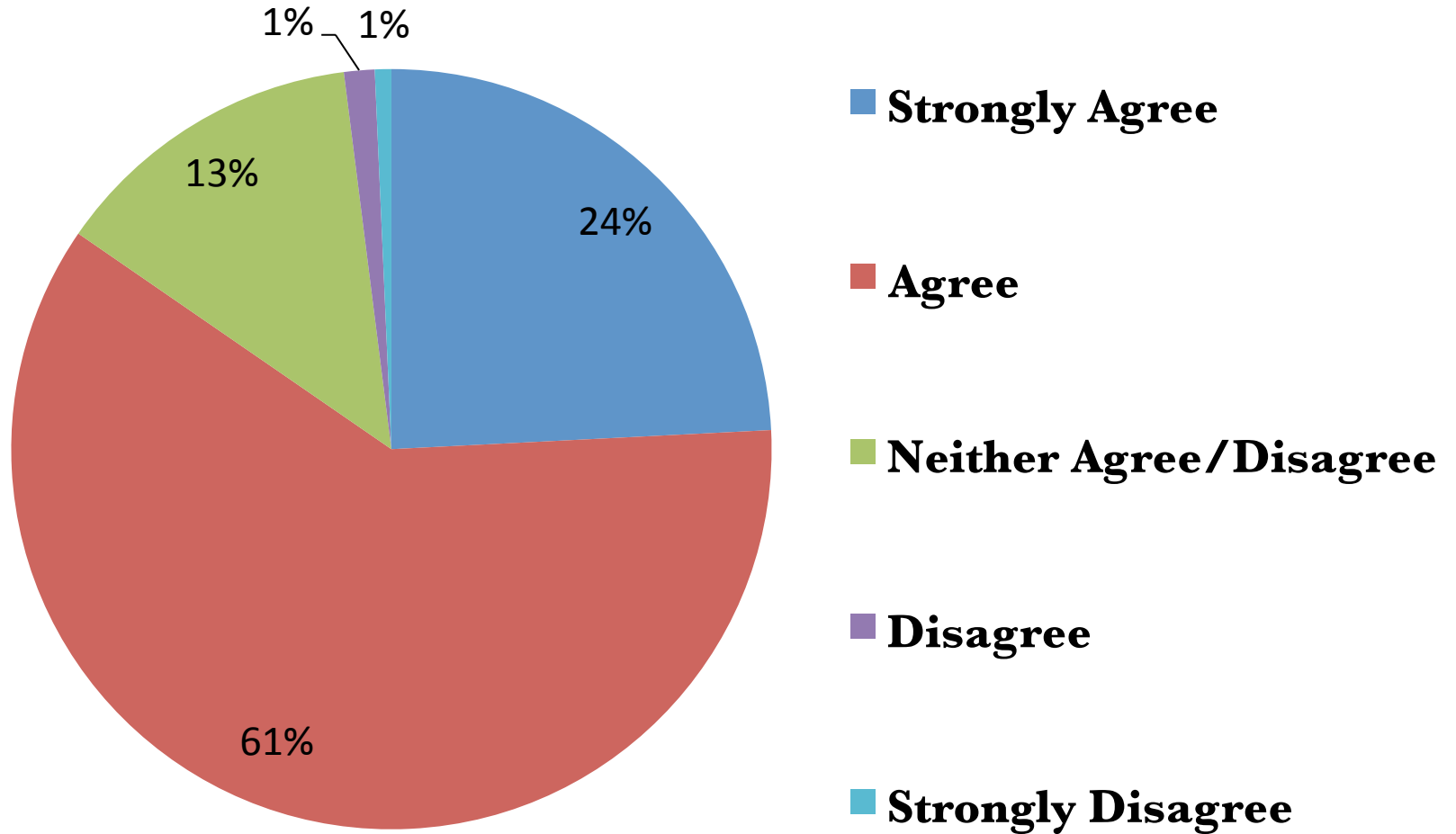
|   |              |
|---|--------------|
| <b>Purpose of Regression</b>  | <b>2.7%</b>  |
| <b>Sampling and Study Design</b>  | <b>48.3%</b> |
| <b>Purpose of IRB</b>   | <b>38.9%</b> |
| <b>Measures of Central Tendency</b>   | <b>45.0%</b> |
| <b>Validity, Reliability, and Generalizability</b>  | <b>56.4%</b> |
| <b>Proper Use of Pre-appraised Evidence</b>   | <b>65.1%</b> |
| <b>Role of Judgment in EBP Decision Making</b>  | <b>50.3%</b> |
| <b>EBP Process Steps</b>  | <b>91.9%</b> |
| <b>Facilitating EBP in Practice Setting</b>   | <b>16.1%</b> |
| <b>Interpreting Odds Ratios</b>   | <b>45.6%</b> |
| <b>Understanding Credibility and Bias</b>   | <b>39.6%</b> |
| <b>Plan-Do-Study-Act Cycle</b>  | <b>45.6%</b> |
| <b>Priority of Evidence, Patient Values, &amp; Clinical Judgment in EBP Decision Making</b> | <b>20.1%</b> |
| <b>Distinguishing Causation From Correlation in Regression</b>                              | <b>57.7%</b> |
| <b>Ranking of Evidence Quality (Hierarchy)</b>  | <b>26.2%</b> |
| <b>Strength of Measurement Approaches</b>   | <b>62.4%</b> |
| <b>PICOT (Population, Intervention, Comparison, Outcome, Time) Format for Search</b>        | <b>50.3%</b> |
| <b>Nurse-sensitive Quality Indicators</b>   | <b>77.9%</b> |
| <b>Understanding Effect Sizes</b>   | <b>23.5%</b> |
| <b>Statistical versus Clinical Significance</b>   | <b>12.8%</b> |

# Students' Beliefs

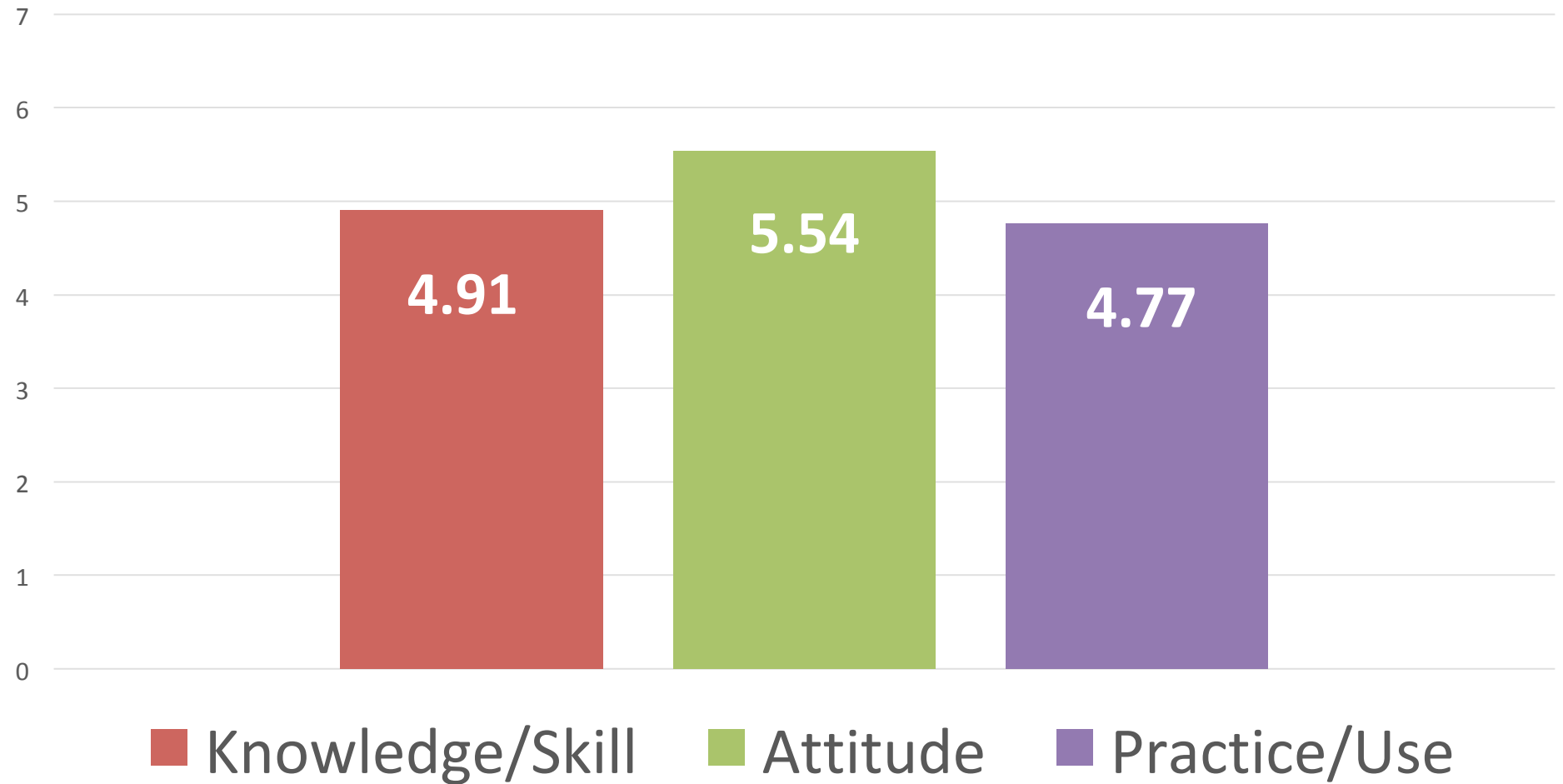
- Knowledge/Skill
- Practice/Use
- Attitude

Growing body of evidence shows the lack of correlation between subjective and objective measures when evaluating objective constructs, such as knowledge (Baxter & Norman, 2011; Davis et al., 2006; Wonder et al., 2017; Zell & Krizan, 2014).

# “I am sure I can deliver evidence-based care.”



# Mean EBPO Scores of ADN/ASN Students



Range 0-7

# Correlations in ADN/ASN Students

|   | Mean<br>( <i>SD</i> ) | 1      | 2             | 3             | 4             |
|---|-----------------------|--------|---------------|---------------|---------------|
| <b>1. EKAN</b>  | 8.77 (2.09)           | -      |               |               |               |
| <b>2. EB PQ<br/>Knowledge</b>   | 4.91 (0.98)           | -0.020 |               |               |               |
| <b>3. EB PQ<br/>Attitudes</b>   | 5.54 (1.13)           | 0.008  | <b>0.369*</b> |               |               |
| <b>4. EB PQ<br/>Practice/Use</b>                                      | 4.77 (1.47)           | 0.098  | <b>0.680*</b> | <b>0.392*</b> |               |
| <b>5. “I am sure I<br/>can deliver<br/>evidence-<br/>based care.”</b> | 4.06 (0.70)           | 0.037  | <b>0.359*</b> | 0.094         | <b>0.347*</b> |

**\*=  $p < 0.01$**

# **IMPLICATIONS FOR ACADEME, PRACTICE, & RESEARCH**

# Academe

Develop a more inclusive approach to prepare all nursing students who may work in the generalist role

- Teaching
  - Exposure effects
    - Content
    - Teaching strategies
- Curriculum
  - Progressive knowledge development
- Faculty Development



# Practice

- Education
  - Programs
    - New nurses transitioning to practice
    - Experienced nurses
- Structures to support EBP
  - Mentoring
  - Support for BSN and advanced degrees

# Research

- Consistent, rigorous research to elevate EBP knowledge of all nurses
  - Teaching strategies
  - Curriculum
  - Focused Education
- Results that enable usable resources for
  - Nursing Education
  - Practice

# Summary

- Teach EBP across levels of nursing education
- Objectively evaluate EBP knowledge to inform decisions on:
  - teaching and curriculum in academe
  - focused education in practice
- Develop faculty
- Collaborate across levels of nursing education

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# Questions

## Additional Information

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**EKAN**

<http://nursingmeasure.org/>