

# ASSESSING STUDENT READINESS FOR EVIDENCE-BASED PRACTICE

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# BACKGROUND

- Four year project to reengineer EBP throughout undergraduate curricula
  - Traditional four year (RN4)
  - Accelerated BSN program
  - RN-BSN program
- Anecdotal data: Positive feedback from students, faculty, employers
- No objective data

# UNDERGRADUATE EBP CURRICULUM

## RESEARCH/EBP COURSE



- **Research/EBP Course**
- Offered in first semester of ABSN program/junior level of traditional four year program/ first or second semester of RN-BSN completion program.
- “Hybrid” format (online course with 3-4 in person meetings)
- Review and appraisal of the literature
- NIH IRB training
- QSEN self learning module
- Development of PICO question related to clinical experiences
- Synthesis of evidence/practice improvement projects
- Poster presentation at local/regional conference

# UNDERGRADUATE EBP CURRICULUM

## EBP THROUGHOUT THE CURRICULUM



- Journal Clubs
- EBP and research articles assigned as supplemental readings for all courses
- Evidence Based Cultural Assessment
- Evidence Based Patient Teaching Pamphlet
- Evidence Based Nursing Staff Education Project
- Pediatric Patient Education Project
- Grand Rounds
- Community/Public Health EBP Project and Poster Presentation

# THE STUDY

- Purpose: To assess effectiveness of EBP course in three undergraduate curricula
- ACE-ERI instrument chosen based on documented validity, reliability, and ease of use

# THE INSTRUMENT: ACE-ERI

- The ACE Evidence Based Readiness Inventory (ACE-ERI) is an online instrument that measures self-reported competencies in EBP.
- The instrument is based on nationally established EBP competencies and has strong validity and reliability, and is able to pick up changes pre and post intervention.
- It has been used in both clinician and student populations.
- The tool incorporates the EBP competencies, a knowledge test focusing on knowledge transformation and demographic information.
- The ACE-ERI provides a score of EBP readiness.



# METHODOLOGY

- IRB approval obtained
- The ACE-ERI instrument was administered to all students in the EBP course in all three curricula.
- Students received email invitation with online link to complete ACE-ERI in first week of course and again in last week of course.
- Students received certificate of completion.

# SAMPLE CERTIFICATE OF COMPLETION

**The Academic Center for Evidence-Based Practice (ACE)**  
of The University of Texas Health Science Center San Antonio

is hereby granting this

## **Certificate of Completion**

to

**Alexis Calvi**

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to certify that you have completed to satisfaction the  
ACE Evidence-Based Practice Readiness Inventory (ACE-ERI)  
as part of a collaborative research project between your organization and ACE.





# RESULTS

## 88% RETURN RATE

AGE 19-24	54.4%
BACCALAUREATE STUDENTS (TRADITIONAL 4 YEAR AND RN COMPLETION)	46.2%
ACCELERATED BSN STUDENTS (SECOND DEGREE)	51.3%
EBP KNOWLEDGE	
NO EBP EXPERIENCE	2.6%
BEGINNING LEVEL	79.5%
INTERMEDIATE LEVEL	17.9%
EBP EXPERIENCE	
NO KNOWLEDGE	10.3%
BEGINNING LEVEL	89.7%

# RESULTS

- Comparison between pre and post intervention for mean competencies scores demonstrated a statistically significant difference for all twenty competencies

# RESULTS: SAMPLE COMPETENCIES

I feel confident I can:	Pre-Test Mean	Post-Test Mean	p Value	95% CI
1. Define EBP in terms of evidence, expertise, and patient values.	3.03	4.29	<0.001	0.85 – 1.67
11. Access clinical practice guidelines on various clinical topics using specified databases.	2.81	4.67	<0.001	1.40 – 2.32
12. Participate on a team to develop agency-specific evidence-based clinical practice guidelines.	2.86	4.40	<0.001	0.96 – 2.13
14. Describe ethical principles related to variation in practice and EBP.	3.11	4.44	<0.001	0.88 – 1.78
16. Deliver care using evidence-based clinical practice guidelines.	3.46	4.74	<0.001	0.81 – 1.76
19. Choose evidence-based approaches over routine as base for own clinical decision making.	3.25	4.67	<0.001	0.94 – 1.90

# RESULTS

- Analyses were run to investigate the correlations between the questions and the demographic variables.
- There were no statistically significant relationships indicating that the variation in the results was not related to the demographics of the students.

# STUDENT FEEDBACK

- “I notice myself being aware in the clinical setting of the need to improve patient outcomes. I am also very proud of the way our group worked together and the way the final poster came out.”
- “I value that as nursing students, we have the power to change and improve current clinical practice in hospitals.”



# STUDENT FEEDBACK

- “My greatest achievement is getting the positive feedback from the professors. It’s a good feeling to know that they are interested in our idea and think it can go a long way.”
- “It was excellent to see all of our hard work pay off at the poster presentation and to receive such strong, valuable and positive feedback from our faculty. It made it all worth it.”
- “I learned a lot about working in a team.”

# CONCLUSIONS

- The EBP course was effective in increasing student competency in all 20 competencies measured by the ACE-ERI.
- Student feedback was positive, citing their understanding of the importance of EBP and the relationship between EBP and clinical practice.

# NEXT STEPS

- Use the ACE-ERI to measure EBP knowledge and competency on a continuing basis.
- Separate out data of traditional four year students and RN completion program students.
- Resurvey students with ACE-ERI at program completion.



