Strengthening Cultural Competence in Prenatal Care with a Virtual Community: Building Capacity through Collaboration

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Disclosures

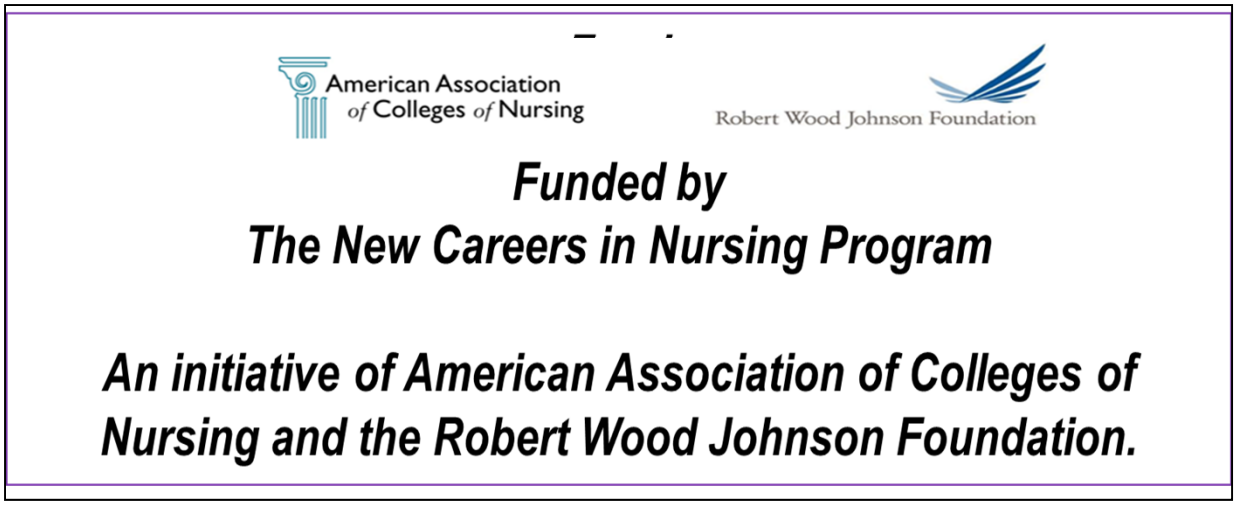
- The authors of the presentation have identified no potential conflicts of interest.

Objectives

- Describe the collaboration of the students, faculty and community members of the cultural virtual simulation
- Describe the project outcomes related to a cultural prenatal care virtual simulation collaborative experience for students from two private universities.
- Understand the use the evaluative process of the students in the study.

Introduction

Support for this project was provided by Robert Wood Johnson Innovative Grant



The Necessity for Cultural Education

The need for increasing cultural content in curriculum

- Healthy People 2020
- Institute of Medicine Report
- Department of Health and Human Services
- Meet the needs of a changing society

The Dilemma

- Faculty
  - Shortage of faculty
  - Expertise of faculty in specialty areas
- Clinical Placement
  - Limitation in sites
  - Limited exposure to diverse populations
- Finances

The Innovative Project

- Collaboration
  - Universities-Duquesne and Ashland University
  - Faculty-Behavioral/Community and Maternal Health
- Clinical experiences
  - Virtual Simulation (VSE)
    - Amish population
    - African American population

Project Aims

- Strengthen the cultural competence of ASD nursing students in prenatal care using a VSE
  - Perceived Clinical Cultural Competence
  - Plan of care
- Determine the effectiveness of share resources between 2 private universities
  - Post evaluations

Jeffreys' CCC Model

- ***Cultural competence***: multidimensional learning process:
  - intregates transcultural skills in three educational dimensions:
    - cognitive
    - practical/psychomotor, and
    - affective
  - involves TSE (confidence) as a major influencing factor, and aims to achieve culturally congruent care.

TSET

The Transcultural Self-Efficacy Test (TSET) by Marianne Jeffreys is a diagnostic tool that measures students' confidence for performing general transcultural nursing skills among diverse client populations.

Jeffreys, M. (2010). *Teaching cultural competence in nursing and healthcare*. New York: Springer.

Description of TSET Subscales

- Cognitive Subscale (25 questions)
  - Self-efficacy rating **knowledge** about the ways cultural factors may influence nursing care.
- Practical Subscale (28 questions)
  - Self-efficacy rating about **interviewing** clients of different cultural backgrounds to learn their values and beliefs.
- Affective Subscale (30 questions)
  - Self-efficacy rating the **values, attitudes,** and **beliefs** concerning cultural awareness, acceptance, appreciation, recognition, and advocacy.

Jeffreys, M. (2010). *Teaching cultural competence in nursing and healthcare*. New York: Springer.

Intervention

- Virtual Simulation Experience
  - Shared Learning Management system (DU)
  - Modules (Amish and African American)
    - Pre-natal video
    - Interaction between students and community members
    - Post-natal video
    - Interaction between students and community members
    - Development of cultural care plan
    - Debriefing

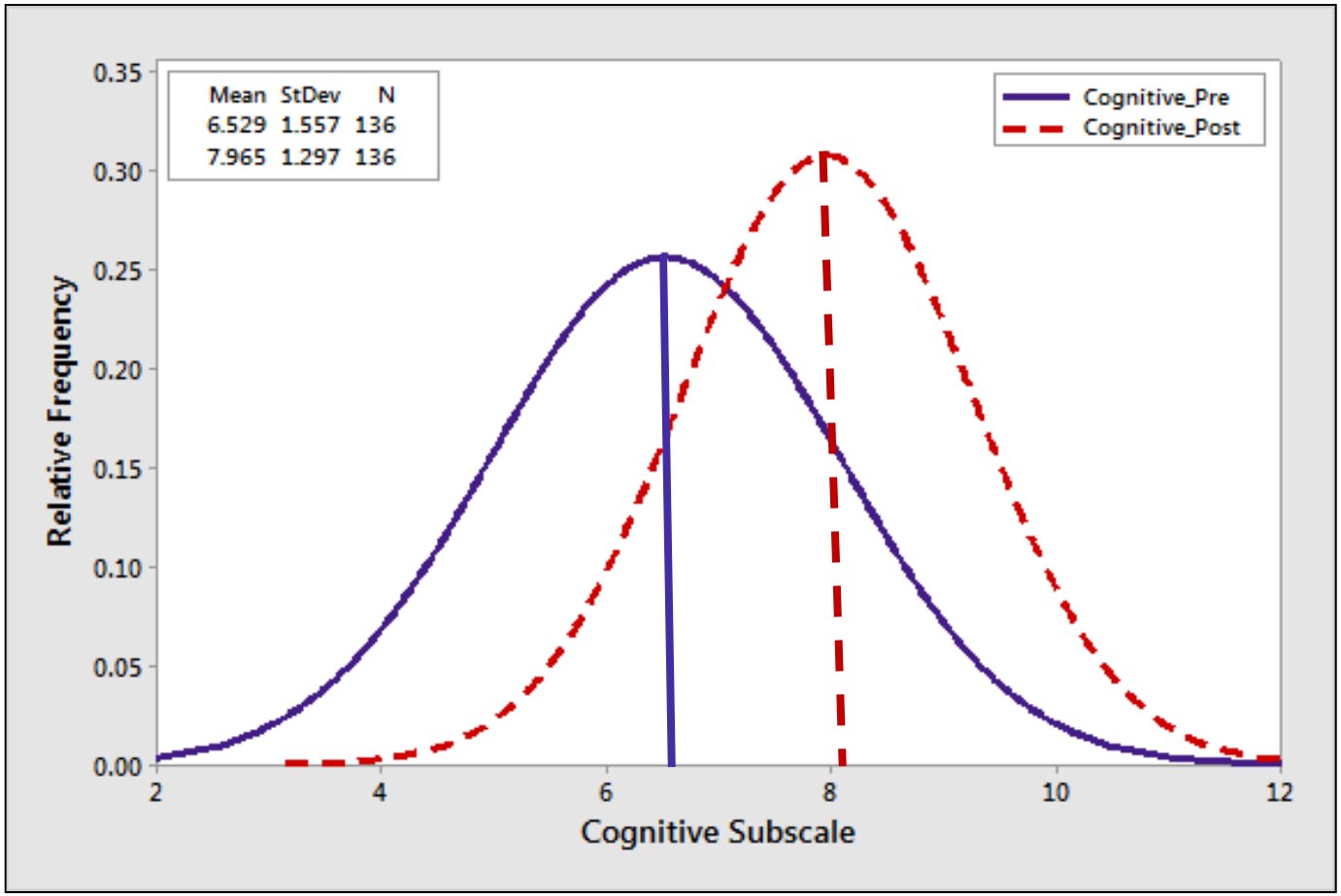
Methods

- IRB approval
- Pre and post-test design
- Consent of the students
- Data collection and analysis
  - Quantitative
  - Qualitative

Demographics

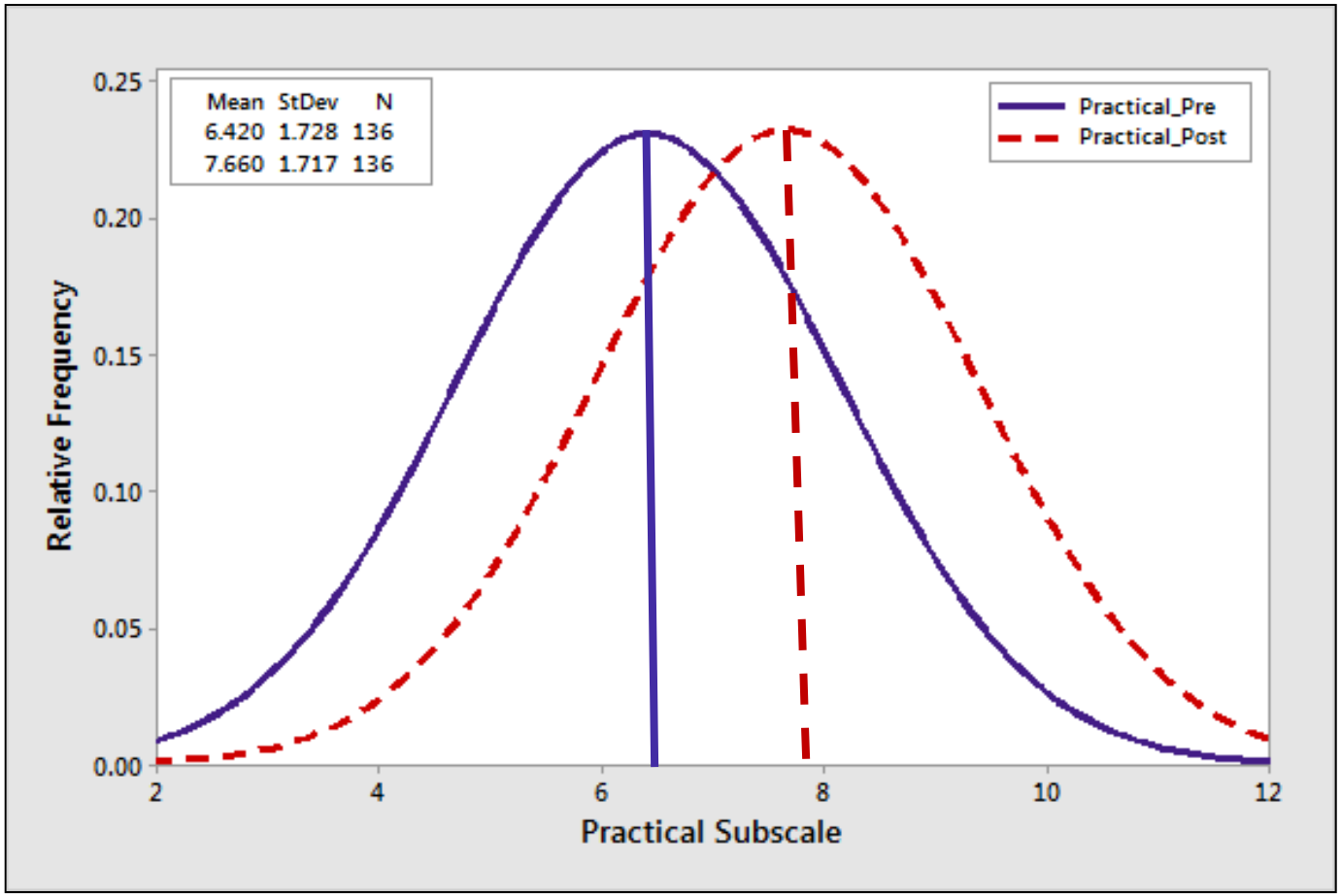
- Ashland University
  - 28 students (traditional and ASD)
- Duquesne University
  - 113 students (ASD)
- 8 collaborative groups, 9 DU groups

Distribution of **Cognitive** Subscale Scores



*Statistically significant ($p < .05$)

Distribution of **Practical** Subscale Scores



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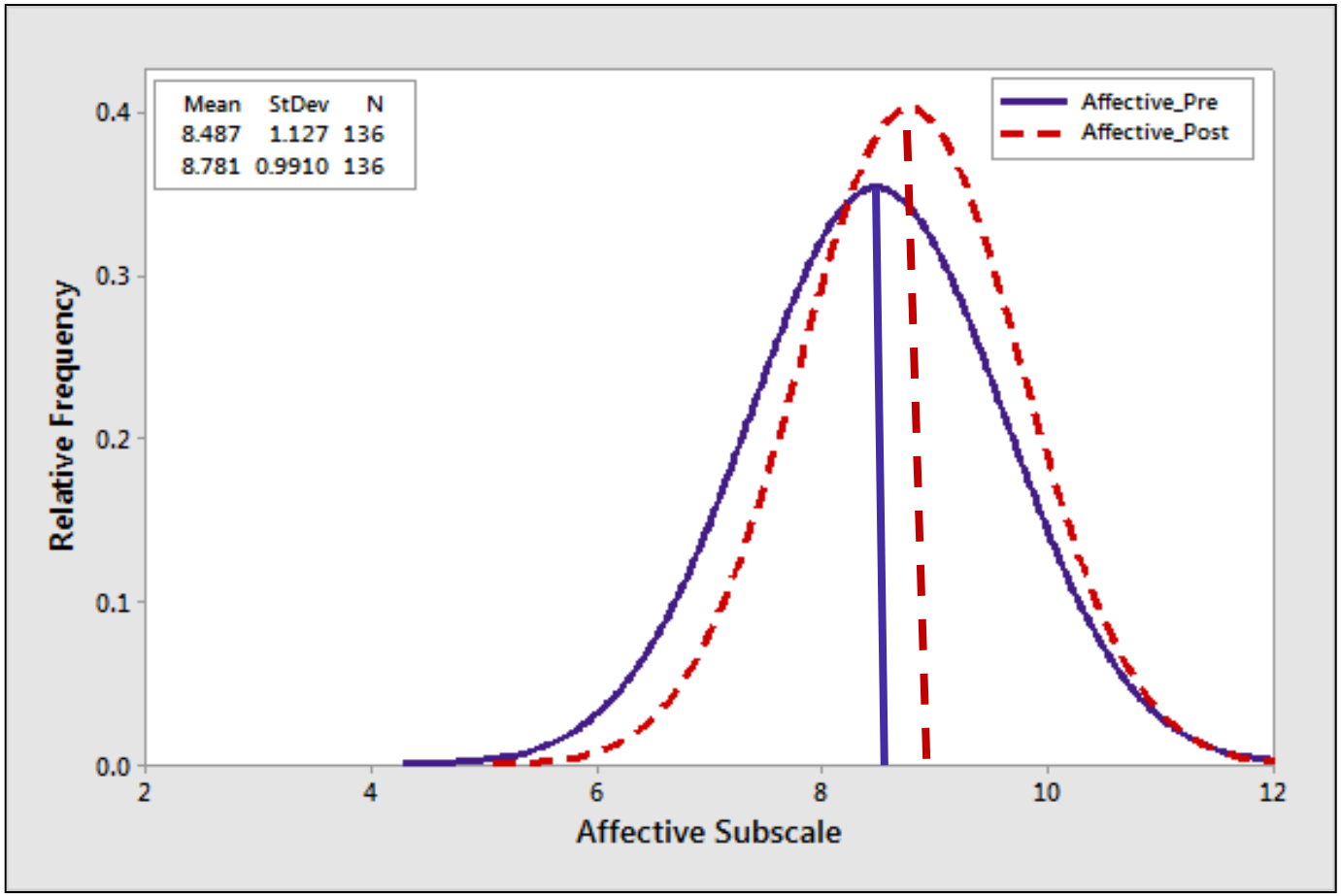
Distribution of **Affective** Subscale Scores



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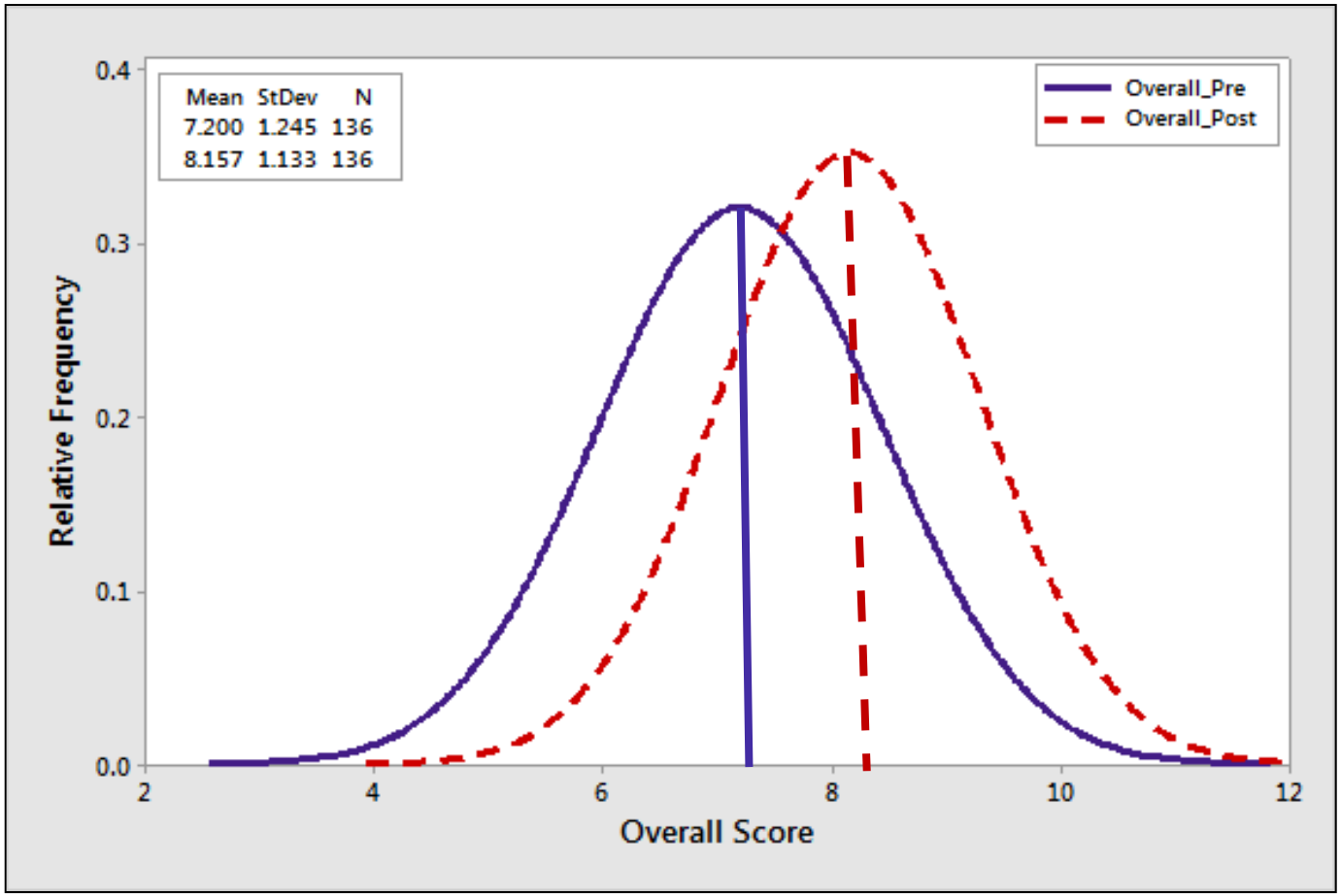
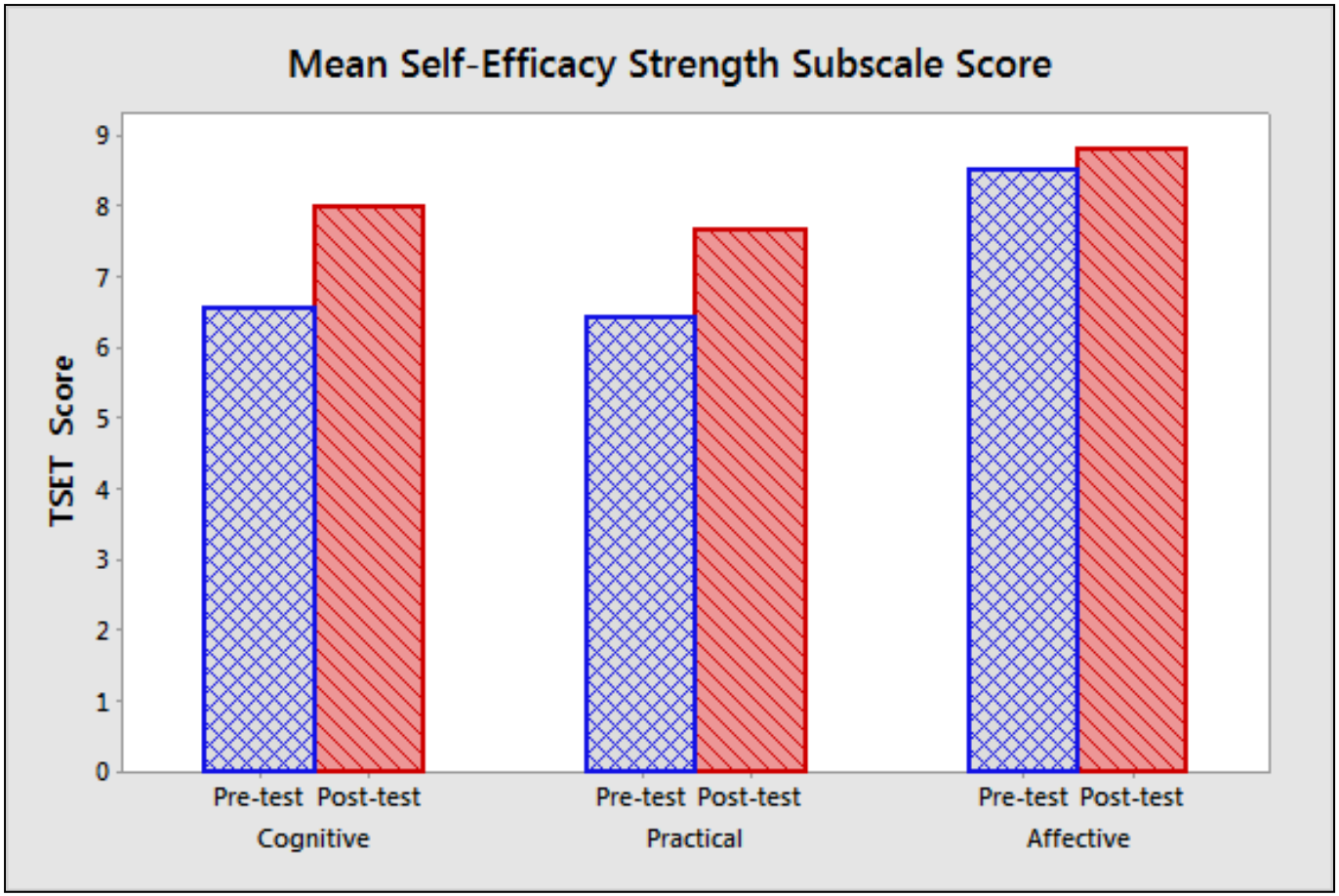
Distribution of **Overall** Scores



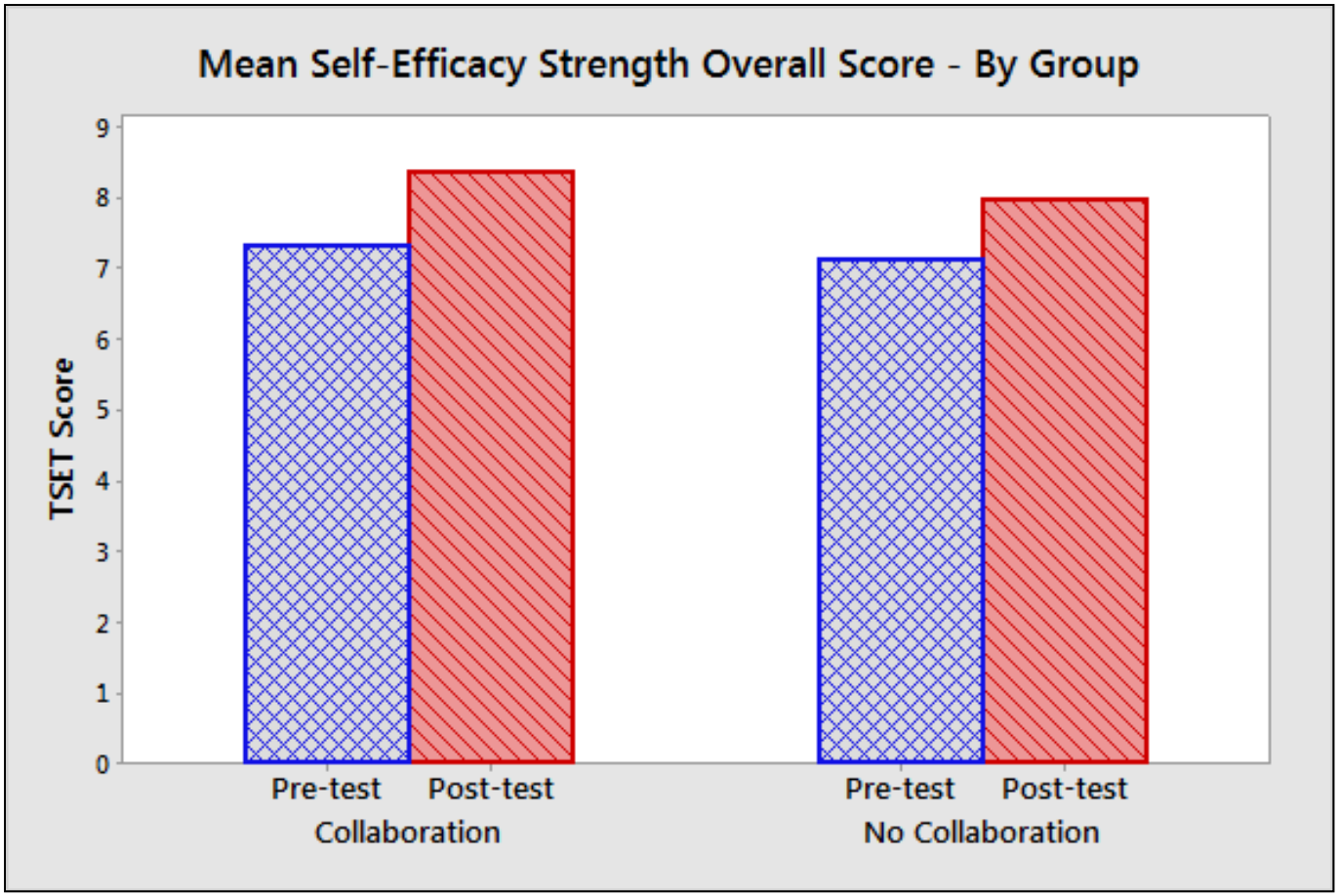
*Statistically significant ($p < .05$)

Mean Self-Efficacy Strength Subscale Score



*Statistically significant ($p < .05$)

Mean Self-Efficacy Strength Overall Score – By Group



*Statistically significant ($p < .05$)

Subscale Means, Standard Deviations, and Paired t-tests

	Pre-test	Post-test	Difference	95% Confidence Interval Differences
Overall				
Mean	7.200	8.157	0.957	.769 to 1.145
SD	1.245	1.133	1.109	
paired t-test	10.061 (p = 0.000)			
Cognitive				
Mean	6.529	7.965	1.436	1.174 to 1.699
SD	1.557	1.297	1.549	
paired t-test	10.810 (p = 0.000)			
Practical				
Mean	6.420	7.659	1.239	.920 to 1.559
SD	1.728	1.717	1.884	
paired t-test	7.674 (p = 0.000)			
Affective				
Mean	8.487	8.781	0.294	.138 to .448
SD	1.127	0.991	0.819	
paired t-test	3.738 (p = 0.000)			

Plan of Care Instrument

- Purpose
  - Identify and prioritize health care needs
  - Identify and prioritize nursing interventions
- Collaborative project within each group
- Grading criteria
  - Cultural assessment
  - Access to care
  - Health practices
  - Health teaching needs
  - Is realistic

Plan of Care Instrument - **Amish**

Plan of Care Grading Criteria	Collaboration (n=8) Mean	SD	No Collaboration (n=9) Mean	SD	Mean Difference
Incorporates findings from cultural assessment	9.13	0.641	9.11	0.333	0.02
Demonstrates understanding of virtual patient's access to care	9.88	0.354	10.00	0.000	-0.12
Incorporates cultural health practices such as folk medicine if appropriate	8.63	0.744	9.56	0.527	-0.93
Identifies key health teaching needs of virtual patient and appropriate delivery method	9.25	0.463	8.22	0.972	1.03
Is realistic given the virtual patient's scenario and culture	8.88	0.641	8.67	0.707	0.21
Total Rubric Score	45.75	1.982	45.56	2.186	0.19

Plan of Care Instrument – **African American**

Plan of Care Grading Criteria	Collaboration (n=8) Mean	Collaboration (n=8) SD	No Collaboration (n=9) Mean	No Collaboration (n=9) SD	Mean Difference
Incorporates findings from cultural assessment	9.38	0.518	9.33	0.500	0.05
Demonstrates understanding of virtual patient's access to care	9.25	0.707	9.56	0.726	-0.31
Incorporates cultural health practices such as folk medicine if appropriate	8.75	0.707	8.89	0.601	-0.14
Identifies key health teaching needs of virtual patient and appropriate delivery method	8.75	0.707	8.89	0.601	-0.14
Is realistic given the virtual patient's scenario and culture	9.25	0.707	9.00	0.707	0.25
Total Rubric Score	45.38	2.264	45.67	2.179	-0.29

Post Course Student Evaluation

Post Course Student Evaluation Question	Collaboration		No Collaboration		Mean Difference
	Mean	SD	Mean	SD	
Overall, the Virtual prenatal community module helped me meet the learning objectives.	3.35	1.130	3.49	1.132	-0.14
Overall, the Virtual prenatal community module helped strengthen my understanding related to the influence of culture on health.	3.58	1.063	3.65	1.135	-0.07
The Virtual prenatal community module helped me understand the prenatal health needs of underserved African-American women.	3.47	1.165	3.41	1.237	0.06
The Virtual prenatal community module helped be understand the prenatal needs of Amish women.	3.77	1.031	3.86	1.060	-0.09
Directions and tools used in the Virtual prenatal community module were clear and organized.	2.96	1.277	3.27	1.253	-0.31
I would recommend the Virtual prenatal community module to my colleagues.	2.68	1.359	2.80	1.348	-0.12

Post Course Student Evaluation Students in Collaborative Group

Post Course Student Evaluation Question	Ashland		Duquesne		Mean Difference
	Mean	SD	Mean	SD	
Collaborating with nursing students from another school of nursing was of value to me in the Virtual prenatal community module.	2.85	1.347	2.65	1.687	0.20

Conclusions

- The VSE was an innovative way to build capacity
- Collaboration helps students to gain access to diverse population and gain cultural competence

Future application

- Increase variety of simulated experiences
- Add interdisciplinary outcomes

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Questions