Collaborating to Build Capacity and Cultural Competence with a Virtual Prenatal Care Clinic

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Disclosures

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Introduction

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Objectives

- Appraise the impact that population health has on nursing education program outcomes.
- Discuss the virtual prenatal care experience for students from two universities.
- Describe how Virtual Simulation Experience (VSE) strengthened the cultural competence of Accelerated Second Degree (ASD) nursing students.
- Summarize the collaboration of the students, faculty and community members throughout the cultural virtual simulation project.
- Discuss future implications for virtual simulation experiences for nursing and interprofessional educational experiences.
The Necessity for Cultural Education

The need to increase cultural content in curricula

- Healthy People 2020
- Institute of Medicine Report
- Department of Health and Human Services
- Meet the needs of a changing, diverse society
The Necessity for Cultural Education

- Negative impacts
  - Exacerbation of health disparities
  - Increase in expenditures
  - Jeopardize patient safety
  - Negative influence clinical outcomes

The Dilemma

- Limited population characteristics
- Faculty
  - Shortage
  - Expertise in specialties
- Clinical Placement
  - Limited sites and specialty areas
  - Limited exposure to diverse population
- Finances and travel restrictions
Current Teaching Methods

- Integrate cultural content in lecture material
- Integrate cultural content in clinical activities
- Extended immersion experiences
- Service learning experiences
Jeffreys’ Cultural Competence and Confidence Model

- **Cultural competence:** multidimensional learning process
- Integrates transcultural self-efficacy (TSE) into three educational dimensions
  - cognitive
  - practical
  - affective
- As transcultural self-efficacy increases, the desire to provide culturally competent care increases.

The Innovation Project

- Collaboration
  - Duquesne University & Ashland University
  - Behavioral/Community & Maternal Health Faculty

- Clinical (Virtual Simulation Experience)
  Amish (rural Ohio)
  Underserved African American (urban SW PA)
The Innovation Purpose

• Design, implement, and evaluate a VSE that transcended geographic barriers by providing ASD student access to diverse cultures while strengthening their ability to provide culturally congruent care
Specific Aims

• Measure the VSE effectiveness on students’ perceived clinical cultural competence (TSE)

• Determine students’ abilities to formulate culturally appropriate care plans to promote health in prenatal clients from diverse backgrounds

• Evaluate the perceptions of project stakeholders related to sharing faculty expertise and resources
Literature Review

• Giddens, Shuster, & Roehrig (2010)
• Giddens, North, Rogers, & Fogg (2012)
• Halter, Grund, Fridline, See, Young, & Reece (2014)
• Jeffreys & Dogan (2012)
• Larsen & Rief (2011)
• Lee (2014)
• Weideman & Culleiton (2014)
The Intervention

- **Students**
  - 17 pre-assigned groups
  - 8-10 students per group

- **Community Members**
  - 3 previous Amish community members
  - 3 African American community members

- **Active Learning Interactions**
  - Between/among students
  - Between/among students and community members
  - Group-developed cultural care plans (2)
  - Debriefing session
The Intervention

- Modules in Blackboard™ - each unfolding over 2 weeks
- Population
  - Amish
  - Underserved African American
- Videos
  - Prenatal
  - Postnatal
- Interviews
  - Assessment findings
  - Cultural preferences
Tools
Transcultural Self-Efficacy Test (TSET)

- 83-item tool developed by Marianne Jeffreys (2010)
- Measures students' confidence for performing general transcultural nursing skills among diverse client populations
- Chronbach’s alpha (0.92-0.98); test-retest (0.64-0.75)

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.

Nursing Plan of Care

• Purpose: Identify and prioritize health care needs and nursing interventions

• Collaborative project within each student group

• Grading rubric (50 points total)
  • Cultural assessment findings (10)
  • Patient access to care (10)
  • Key health teaching practices (10)
  • Health teaching needs (10)
  • Realistic culture-focused care (10)
Post-Course Evaluations

- Student survey (5-point Likert scale & open ended)
- Community Members - phone discussion
- Project Team – phone discussion
Results
Demographics

- Ashland University (n=28)
- Duquesne University (n=113)
- Collaborative groups (8)
- Non-collaborative groups (9)
- Female (82%), <26 years of age (66%), non-Hispanic White (83%)
Aim 1

Effectiveness of VSE on Students’ Perceived Clinical Cultural Competence
Distribution of **Overall** Scores

*Statistically significant (p < .05)*
Distribution of **Cognitive** Subscale Scores

*Statistically significant (p < .05)*
Distribution of **Practical** Subscale Scores

*Statistically significant (p < .05)*
Distribution of Affective Subscale Scores

*Statistically significant (p < .05)
Aim 2

Students’ Abilities to Formulate Culturally Appropriate Plans of Care
## Plan of Care Results

<table>
<thead>
<tr>
<th>Subset</th>
<th>Type</th>
<th>Mean</th>
<th>SD</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorporates findings from cultural assessment</td>
<td>Amish</td>
<td>9.12</td>
<td>.485</td>
<td>.118</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>9.35</td>
<td>.493</td>
<td>.119</td>
</tr>
<tr>
<td>Demonstrate understanding of virtual patient’s access to care</td>
<td>Amish</td>
<td>9.94</td>
<td>.243</td>
<td>.059</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>9.41</td>
<td>.712</td>
<td>.173</td>
</tr>
<tr>
<td>Incorporates cultural health practices such as folk medicine, if</td>
<td>Amish</td>
<td>9.12</td>
<td>.781</td>
<td>.189</td>
</tr>
<tr>
<td>appropriate</td>
<td>African American</td>
<td>8.82</td>
<td>.636</td>
<td>.159</td>
</tr>
<tr>
<td>Identifies key health teaching needs of virtual patient and</td>
<td>Amish</td>
<td>8.71</td>
<td>.920</td>
<td>.223</td>
</tr>
<tr>
<td>appropriate delivery method</td>
<td>African American</td>
<td>8.82</td>
<td>.636</td>
<td>.154</td>
</tr>
<tr>
<td>Is realistic given the virtual patient’s scenario and culture</td>
<td>Amish</td>
<td>8.76</td>
<td>.664</td>
<td>.161</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>9.12</td>
<td>.697</td>
<td>.169</td>
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<tr>
<td>Plan of Care Rubric Score</td>
<td>Amish</td>
<td>45.65</td>
<td>2.029</td>
<td>.492</td>
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<tr>
<td></td>
<td>African American</td>
<td>45.53</td>
<td>2.154</td>
<td>.522</td>
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</table>
Aim 3

Perceptions of Project Stakeholders
## Post Course Student Evaluation

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

### Students in Collaborative Group

<table>
<thead>
<tr>
<th>Post Course Student Evaluation Question</th>
<th>Ashland Mean</th>
<th>Ashland SD</th>
<th>Duquesne Mean</th>
<th>Duquesne SD</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborating with nursing students from another school of nursing was of value to me in the Virtual prenatal community module.</td>
<td>2.85</td>
<td>1.347</td>
<td>2.65</td>
<td>1.687</td>
<td>0.20</td>
</tr>
</tbody>
</table>
Qualitative Analysis

• **Students**
  - Most helpful-interaction with “real patients”
  - Lesson learned-assumptions that are made about cultures

• **Faculty**
  - Value of shared expertise and knowledge
  - Sharing of resources

• **Community Members**
  - Enjoyed the interaction with students
  - Took more time than they expected
Discussion

• Students’ cultural competence was strengthened through the VSE, specifically
  • Knowledge
  • Interviewing clients
  • Values, beliefs, and attitudes

• Plan of care
  • Access to care
  • Health teaching needs
  • Incorporate cultural practices
  • Provide realistic care
## Limitations

- Blackboard more familiar to Duquesne students
- Sample size discrepancy between schools
- Timing of project and length (over 7 weeks)
- Lack control group
Lessons Learned

• Logistics: Reconsider the scheduling and time allotted for project design, implementation, and evaluation

• Provide pre-project practice session for students unfamiliar with Blackboard

• Design strategies to minimize time commitment for community members

• Include learning activities to address/prevent stereotypical comments by students with clients
Future Research

• Expand the variety of VSEs
• Collaborate with interdisciplinary healthcare teams
Conclusions

• **Population Health:** Cultural competence can be impacted through intentional interventions.

• **Collaboration:**
  - The VSE was an innovative way to build capacity and increase the students exposure to culturally diverse populations
  - Collaboration helps students to gain access to diverse population and gain cultural competence

• **Cultural Competence:**
  - TSE scores significantly increased after participating in the VSE
  - Care plans demonstrated integration of culturally competent care.
References


