Incorporation of Community Health Virtual Simulation into a Capstone Population Focused Project: A Pilot Study

UNIVERSITY OF HOUSTON-VICTORIA
SCHOOL OF EDUCATION
HEALTH PROFESSIONS & HUMAN DEVELOPMENT

K. Camargo R.N., PhD   (camargok@uhv.edu)

Background

Virtual Simulation - computer, online, either 2D (computerized case studies, CD-ROMs, Videos, games or study programs)or 3D (virtual communities)

Historical Use:
- Pilots-3 D Virtual Worlds during World War II
- 1995 Web-based simulation begins
- 1996 –public(Gaming-Dungeons and Dragons)

Associate Degree RNs:
- Seek to transition into professional nurse role (BSN)
- Bring nursing experience
- Are tech savvy
    - Types of Virtual World Simulations
    - 2013 Integrative Review (Foronda, Godsall & Trybulski)

Healthcare 3 D Virtual Worlds
- CliniSpace™
- Second Life ®

United States Military
- CBRNE-
- PULSE

Virtual Communities
- Linden Lab's SL; Stilwell; Mirror Lake; The neighborhood; BB Virtual Tour; BB Virtual learning Environment; Killardton; Centralia; Sentinel City

Research:
- Scarce or scant with regards use of a virtual world simulation environment

Purpose

A Pilot Study

Sought to determine whether the use of a Community Health Virtual Simulation assisted online RN-BSN nursing students (enrolled in a Newly created Online RN to BSN program) integrate established nursing clinical skills into the professional nurse role; apply concepts, values and new professional nursing knowledge; synthesize critical thinking; use leadership skills of collaboration & communication in the development of a team-identified 'Community Population Focused' project.

Research Question guiding the Pilot Study:

What relationships, if any exist between the use of a Community Health Virtual Simulation teaching strategy in a Capstone Population Focused Project and the course learning outcomes, and the concepts applied (communication, collaboration and leadership, as well as student interest, understanding and engagement)?

*IRB submitted/completed: Protocol #17024

Virtual World Simulation as a Teaching Strategy

There is a need to provide and use teaching strategies which enhance and augment student nurses' learning.

Experiential learning and active engagement teaching strategies allow students to:
- apply newly acquired nursing knowledge,
- increase and enhance their critical thinking/reasoning, skills
- integrate and use leadership skills
- Integrate and use inter-professional collaboration, communication and teamwork.

As a teaching and learning strategy
'Virtual World Simulation(s)'
- Provides a creative alternative to traditional methodologies
- Realistic and experiential in approach
- Closes the gap between theory and practice
- Enhances student experience(s); increases confidence & engagement; increases knowledge and understanding
- Supports affective learning
- Supports and enhances leadership skills, active Team-work as well as communication and collaboration

Steps to Embed a Community Health Virtual Simulation

Review & Select
Community Health Virtual Simulation (CHVS) platform.

Review previous Courses & Course work (Transitions (Professional Nursing); Evidence-based practice; Ethics; Health Assessment; Healthcare Organizations &Informatics; Leadership; Community Population Focused Course)

Facilitate & enhance student learning/understanding, by: Developing/Creating/Embedding:
- Virtual world and Blackboard LMSs
- Forms/Tools – Scaffolding information to be attained
- Capstone Course Assignments
    - Team Community Assessment, Team member Discussion Boards, Individual Reflections
- Scaffolding Discussion Board
- Rubrics-detailed & outline specific requirements

Evaluation

Consent (Informed Consent Letter/*Institutional IRB)
Community Health Virtual Simulation (CHVS) Pilot Study Questionnaire
- Anonymous Survey mailed along with return envelope
    - 8 basic demographic questions
    - 6 Likhert questions ranging from Strongly Disagree to Strongly Agree
    - 3 qualitative questions

Course Faculty Evaluation/Grading of the Community Health Virtual Simulation (CHVS) Capstone Project Assignment(s)
- Team Community Health Assessment
- Team Capstone Project Plan report (Final Paper)
- Team Capstone Poster
- Reflection paper
- Scaffolding Discussion Board
- Team/Individual Blackboard postings
- Team Texting/Communications

Findings/Implications

CHVS Questionnaires
*Low ResponseRate-3 out of 10 (30%) Questionnaires returned; 2 female & 1 male; age: 29-36; Responses: 30% (3) S. Agree to Agree .
Students perceived the CHVS:
- Is an effective teaching strategy
- Facilitated communication, collaboration, leadership, interest & engagement
- Facilitated development of the Capstone project (DB also)
- Assisted with the understanding & utilization of the key concepts: communication, collaboration & leadership
- Aided in the synthesis of the Capstone Project

Student Questionnaire Comments:
Assessment tool a strength, CHVS best tool (students spread throughout state, gained skills, permitted easy of visualization of communities.

Individual Reflection papers Addressed:
- Students perceptions & use of a CHVS
- Insights & Lessons Learned; ADN-BSN Prepared RN
- Achievement of Online RN to BSN Nursing Program goals
- Perceived Changes in the Professional Role & Baccalaureate Nurse preparation after participation in CHVS (Specific Examples)
- Lifelong learning & Future Growth

*Capstone occurred during Hurricane Harvey
Future research: Larger sample size, online questionnaire platform

References

Provided upon request