SIMULATION RESEARCH: INFORMING BEST PRACTICES IN NURSING EDUCATION

STTI International Nursing Research Congress
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Dr. Susan Gross Forneris, Dr. Diana Odland Neal, Dr. Jone Tiffany
Disclosures

• Dr. Forneris’ study was supported in part by a grant to the National League for Nursing (NLN) from Laerdal Medical and Wolters-Kluwer Health

• Dr. Forneris is an employee of the NLN, Washington, DC, USA

• Dr. Neal and Dr. Tiffany – no disclosures
Symposium Objectives

• Discuss findings of simulation research that are informing nursing education to use simulation active teaching strategies.

• Discuss faculty development initiatives to support the changing faculty role with emerging simulation best practices.

• Discuss how to transfer active learning principles from reflective debriefing for use across the curriculum to achieve learning outcomes.
Integrating Virtual Simulation into the Curriculum: An Exploratory Study

Susan Gross Forneris, PhD, RN, CNE, CHSE-A
National League for Nursing
Goals of the Exploratory Study

• Integrate vSim for Nursing into nursing curriculum for one semester

• Evaluate the effectiveness of vSim for Nursing as an active learning teaching strategy

• Create a faculty implementation guide as a means of faculty development in the use of a virtual simulation teaching strategy
Focused Areas of Exploration

• Utility as a teaching tool
• Classroom Approaches
  • Flipping the Classroom
  • Classroom Group Debriefing
  • Small Group Concept Mapping
• Coursework
• Targeted Lab Activity
• Remediation
Findings

Summarizes the evaluation of the vSim scoring features by faculty who participated in the pilot study.

<table>
<thead>
<tr>
<th>Scoring</th>
<th>Strongly Agree</th>
<th>Strongly Agree to Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully explains how students’ scores are computed</td>
<td>6%</td>
<td>76%</td>
</tr>
<tr>
<td>Provides scores that accurately reflect student performance</td>
<td>17%</td>
<td>83%</td>
</tr>
<tr>
<td>Fully explains the weighting of factors that affect student scores</td>
<td>20%</td>
<td>87%</td>
</tr>
<tr>
<td>Provides student scores that are easily interpreted</td>
<td>22%</td>
<td>89%</td>
</tr>
</tbody>
</table>
Findings

Content Quality:

Content Quality:
Percent that Strongly Agree and Agree with Statements about vSIM

- Accurately depicts actual clinical scenarios
  - Strongly Agree: 33%
  - Strongly Agree/Agree combined: 94%

- Accurately represents the current nursing practice environment
  - Strongly Agree: 24%
  - Strongly Agree/Agree combined: 94%

- Information is consistent with other course materials we use
  - Strongly Agree: 24%
  - Strongly Agree/Agree combined: 100%

- Offers an adequate range of scenarios
  - Strongly Agree: 17%
  - Strongly Agree/Agree combined: 83%
Findings

Primary Learning Objective:

- Improve clinical reasoning and ability to prioritize: 67%
- Deepen understanding of nursing concepts: 17%
- Evaluate clinical skills: 11%
- Other: 6%
Findings

Substitute for other Teaching Methods:

Always/Often Use vSIM as a Substitute for Other Teaching Methods:
Pilot vs. Future

- Classroom teaching: Pilot 31%, Future 41%
- Actual clinical experiences: Pilot 38%, Future 41%
- Standardized patients: Pilot 25%, Future 21%
- Training manikins: Pilot 19%, Future 27%
- Simulation labs: Pilot 12%, Future 35%
Classroom Approaches

Using Story…Virtual Flipped Classroom

Role modeling critical thinking…virtually
Classroom Approaches

Using story...

Simulation Concept mapping...virtually!

Eva Madison
Diagnosis: Gastroenteritis
Location: Emergency department

Eva Madison is a 5-year-old girl with her mother and sister in the hospital. She is waiting in the emergency department for her turn.
Classroom Approaches

Using story...

Differentiating low acuity – high frequency from high acuity low frequency

▶ Pediatric Case 3: Sabina Vasquez (Core)

▶ Pediatric Case 4: Sabina Vasquez (Complex)

▶ Maternity Case 1: Olivia Jones (Core)

▶ Maternity Case 2: Olivia Jones (Complex)
Classroom Approaches

Using story... Delegation and Supervision... virtually

Mona Hernandez
Diagnosis: Pneumonia
Location: Medical Unit 1610
Report from day shift nurse.
Situation: Mona Hernandez is a 72-year-old Hispanic female who was admitted

Sherman "Red" Yoder
Report from home health nursing manager.
Red is an 80-year-old farmer and war veteran who lives by himself, 20 miles from the nearest city. He has been a resident for 10 years with his wife and daughter in-town. He and Judy live nearby. He was diagnosed with type 2 diabetes about six months ago and recently began taking insulin.
We [doctors from the home health agency] have been asked to see how to evaluate a wound caused by wearing shoes for too long. The toes are injured well over the toes from standing on the floor. The relative is very concerned about his vision.
His daughter-in-law, Judy, expressed concern about his ability to manage diabetes well-care, and he has asked that she can visit her for the conversation. We hope to see her independently, about 90 minutes. He drove himself home in a car and spends a lot of time on his computer.

Carl Shapiro
Diagnosis: Acute Myocardial Infarction
Location: Telemetry Unit
Carl Shapiro is a 58-year-old male who travels frequently. He was seen in the Emergency Department at 11:30 a.m. for complaints of chest pain, diaphoresis, and shortness of breath. He was treated in the Emergency Department with aspirin and two doses of sublingual nitroglycerin.
Chest pain improved with nitroglycerin administration. IV infusion of normal saline was started in the Emergency Department and is running at 25 ml/hour.

Mary Richards
Diagnosis: Congestive Heart Failure
Location: Cardiology Unit 22-06
Report from ED nurse.
Situation: I have taken care of Ms. Richards in the emergency department and I would like to give you a report on her. Ms. Richards is an 82-year-old African American female who was brought to the emergency department by her son this evening when she found her confused and complaining of trouble with her vision. Ms. Richards has been ill for several days with complaints of nausea, dizziness, and weakness.
Background: Ms. Richards has a history of hypertension, diagnosed 40 years ago, and heart failure, diagnosed 20 years ago. Her current medications include furosemide, amiodarone, and digoxin.
Faculty Development

vSim for Nursing
Implementation Guide for Faculty

Developed by the National League for Nursing
Using Simulation to Enhance Clinical Reasoning During Medication Administration: A Multi-Site Global Qualitative Study

Diana Odland Neal, PhD, RN, PHN

St. Olaf College (Minnesota, USA)

Kilimanjaro Christian Medical College (Moshi, Tanzania)
Minnesota Intercollegiate Nursing Consortium (MINC)

Gustavus Adolphus College (GAC)

St. Olaf College (SOC)
Kilimanjaro Christian Medical University College (KCMUCo) Moshi, Tanzania
RESEARCH QUESTION

• What are student nurses’ reported thinking processes during medication administration?
DESIGN/METHODOLOGY

• Research approved by IRB of each nursing program
• Descriptive, qualitative design
• Simulated clinical experience
• Semi-structured interview (audiotaped)
• Content analysis of statements, examination of themes & patterns
METHODOLOGY

• **Subjects**: 48 senior nursing students from 5 baccalaureate programs in Minnesota, USA (~10 students per program); ten 2nd year advanced diploma nursing students from KCMC in Moshi, Tanzania (Med-Surg content)

• **Patient Role Player**: 48-year-old female

• **Postop Day 1**: R. Total Hip Arthroplasty (MN)  
  **Trauma Day 3**: 2nd degree burn R. thigh (TZ)

• **Pain**: 6 out of 10

• **Decision**: choices of PRN pain medication
MN RESULTS
Single Medication Administered

- Toradol 15 mg IV: 12
- Toradol 20 mg PO: 10
- Tylenol 650 mg PO: 7
- Morphine 3 mg IV: 3
- Morphine 4 mg IV: 3
- Tylenol 325 mg PO: 1
- Morphine 2 mg IV: 1
MN RESULTS
Multiple Medications Administered

<table>
<thead>
<tr>
<th>Medication</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tylenol 650 mg PO &amp; Toradol 20 mg PO</td>
<td>2</td>
</tr>
<tr>
<td>Morphine 4 mg IV &amp; Tylenol 650 mg PO</td>
<td>2</td>
</tr>
<tr>
<td>Tylenol 325 mg PO &amp; Toradol 10 mg PO</td>
<td>1</td>
</tr>
<tr>
<td>Tylenol 325 mg PO &amp; Toradol 20 mg PO</td>
<td>1</td>
</tr>
<tr>
<td>Tylenol 325 mg PO &amp; Toradol 15 mg IV</td>
<td>2</td>
</tr>
<tr>
<td>Morphine 2mg IV &amp; Tylenol 650 mg PO</td>
<td>1</td>
</tr>
<tr>
<td>Morphine 6 mg IV &amp; Tylenol 650 mg PO</td>
<td>1</td>
</tr>
<tr>
<td>Morphine 4 mg IV, Toradol 15 mg IV, &amp; Tylenol 325 mg PO</td>
<td>1</td>
</tr>
</tbody>
</table>
Minnesota (MN)
45 Students
(~10 per program)
CSB-SJU
Globe
MINC- SOC & GAC
SCSU
SCU

Tanzania (TZ)
10 Students
at KCMC

# of Students Administering Medication

<table>
<thead>
<tr>
<th>Medication</th>
<th>Students in MN (%)</th>
<th>Students in TZ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine Sulfate 2-4 mg IV every 2 hours PRN</td>
<td>15% (0%)</td>
<td></td>
</tr>
<tr>
<td>Morphine Sulfate 2-4 mg PO PRN</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Toradol 20 mg PO every 4-6 hours or 15 mg IV every 6 hours PRN</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Tylenol #3 tabs PO 1-2 tablets every 4-6 hours PRN</td>
<td></td>
<td>17% (27%)</td>
</tr>
<tr>
<td>Tylenol 325 mg PO 1-2 tablets every 4-6 hours PRN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paracetamol 250 mg PO PRN</td>
<td></td>
<td>30%</td>
</tr>
<tr>
<td>Combination Meds PRN</td>
<td></td>
<td>23% (0%)</td>
</tr>
</tbody>
</table>

(Sulfa Allergy in TZ)
(Codeine Allergy in MN)
1. Safety - systematic preparation, checking rights, concerns about overmedication & addiction/tolerance, knowledge of medications, prevent errors

MN: “…making sure each step was followed, making sure to look up every single medication, making sure that the dosing was right, any possible side effects it may have, and double checking, triple checking, and quadruple checking everything.”

TZ: “The doctor can do a lot of work and get tired, and give the wrong dose, so the doctor and the nurse share this information, so the patient is safe.”
2. **Clinical Reasoning** - knowing rationale for meds, understanding the pain, using deductive reasoning to choose med(s), analyzing meds previously given, conferring with patient, desiring reduction in fever, other factors (sedation level*, bowel sounds*, language barrier**, ability to take pills, intake of food, presence of nausea, side effects, contraindications, administration procedure, familiarity with meds)

MN: “It helps me realize that there’s going to be several options and you need to weigh each option. And there might be more than one good answer or medication to give, but there’s one that will be more right.”
MN: “I chose to give the Toradol because the patient had a pain level of 6. I chose to give the Acetaminophen to combat the patient’s climbing fever. I chose not to give the Tylenol 3 due to the fact that the patient has codeine allergies. I chose not to give Morphine because of the respiratory status of the patient.”

TZ: “Toradol is good... is short-acting... and is very active in pain. This Paracetamol will help reducing temperature at the same time reducing pain, but it will take time... a bit. I didn't plan to give Morphine Sulfate because the mother is allergic to sulfa... that is why I didn't give.”
3. **Uncertainty & Need for Validation** - questioning self, decisions, & skill*, wanting more practice or experience, feelings ranging from anxiety to confidence**, desiring validation

MN: “Seeing that I am a new nurse, I would have wanted the second opinion of a colleague. So I would have double-checked with another nurse.”

TZ: “I was not sure about Toradol because my patient has temperature… how that would react. I was a bit nervous when I saw the patient, but then I was cool. Then cold when I was talking to my patient.. then I was giving her information and then I was okay.”
4. Perception of Realism- perceptions ranging from not seeming real to appearing real & scary, looking for hidden errors, wanting more information

MN: “If I had been in this situation for real life, you would have known the patient a little more....”
“The simulation feels real & the emotional experience of giving drugs & not being 100% sure is scary.”

TZ: “I wanted time to do a family assessment, provide support for patient, provide hygiene. I'd like to find out about family system, teaching, marital status, economical status, assistance, etc. I would interview the patient, do a family history, & health history. I wanted to know more about the patient particulars.”
5. **Lessons Learned** - learning from mistakes, needing more practice &/or experience, verifying orders, assessing effects of medication, collaborating with patients, evaluating patient reactions, reflecting on actions

MN: “I will have to think deeper about medications and the interactions of what’s going on with the patient at the time…. My first thought would be to give her a pain med, but you have to look at the whole picture: respirations, allergies… a stomach ache at the time… so I guess this just further proves that you need to think about each med administration and how it affects the person as a whole.”

TZ: “This simulation is good. It helps me to remember my way to do right and to think about the patient. We have to work nearby with the doctors. We don’t, “Yes sir! Yes sir!” We don’t. We have to change. “Yes sir! Yes sir!” It is very bad... we have to say no…. We have to challenge.”
Similarities for MN vs. TZ

- **Themes** - all 5 themes fit for MN & TZ

- **Significance of pain rating at 6 r/t meds administered** - 73% of students in MN gave Toradol & 70% in TZ; 27% in MN gave Acetaminophen & 30% in TZ (6 high level of pain vs. low) - those who did not give Toradol, stated it was because they were not familiar with it

- **Analysis of options** - a deductive cognitive process of ruling meds “in” or “out”

- **More time/Do more** - for assessments & education

- **Concern about safety** - highest with med administration
Variations for MN vs. TZ

- **Difference in multiple pain medications** - 23% of students in MN gave a combination of pain medications; 0 in TZ (not considered)

- Only 1 TZ student had good internet for preparation

- TZ nursing students were surprised that patient had 2 diagnoses & concerned about control of DM through diet & meds/risk of infection due to 2° burn

- TZ students wanted more information about the patient’s health and social history*

- Maintaining good relationships was important in TZ**
STUDY LIMITATIONS

• Varied curricular content, clinical experiences, learning resources, timing, newness of simulation (culture, language barrier)

• Difficulty of recall
  – Multi-tasking, fast-paced simulation
  – No follow-up questions asked
  – Emotional component

• Triangulation helped assure validity and enhance rigor in MN study*
IMPLICATIONS AND CONCLUSIONS

• Clinical decision-making needs to include best practices, individual experiences, patient condition, patient preferences, etc.

• Simulation & clinical with debriefing for reflection to uncover the rationale behind actions is needed to provide more clinical reasoning opportunities

• Continued focus is needed on student thinking with medication administration
COMMENTS/INSIGHTS:

• Taking notes was important to fully capture comments if audiotape was not clear; video analysis may help.

• Verbal debriefing vs. students writing responses may have forced students to respond.

• If students made multiple similar comments within questions, they were recorded once.*

• Debriefers did not request further clarification of answers to questions or ensure that students thoroughly thought through their responses**
Faculty wondered what information we missed (i.e., what information did students forget or not tell us?)

Debriefing incorporates context, reflection & dialogue for a dynamic process of critical inquiry - there is also an emotional/affective dimension that may need to be addressed following simulation.

Simulations with many decision pathways encourage students to prioritize & support their decisions while introducing them to the complex thinking necessary for effective clinical decision-making.

This was a simulation vs. real clinical practice - what is the difference in thinking between these?
PUBLICATION

Using Virtual Simulation to Enhance Student Learning: A Case-Based Approach

Dr. Jone Tiffany
Objectives

• Discuss the use of virtual role-play simulation to increase cultural sensitivity in healthcare professionals.
• Examine future implications for the educational uses of virtual world environments for healthcare professionals.
“Ugly in a World Where You Can Choose to be Beautiful”: Teaching and Learning About Diversity via Virtual Worlds
Inclusivity Assignment
Field Study Experience Objectives:
1. Describe the nature of values and value systems and their influence on behavior applied in a variety of settings.
2. Identify personal and professional values that influence the decision-making process when interacting with diverse clients and students.
3. Synthesize the literature and the SL field study experience into an action plan for how to ensure inclusivity in nursing practice and education.

Note: Nurse educator students in this course have had significant readings and class discussions regarding inclusivity prior to participating in this culminating course activity. This experience is preceded by an orientation to Second Life® using online tutorials and a face-to-face classroom session. The avatars used in this field study experience were created specifically for this assignment.

Part I: Meet Your Avatar
A photo and biography of an avatar representing a marginalized person is provided to each student.
Upon meeting your assigned avatar, write a 2-3 page reflection paper that addresses the following questions:
1. How do you feel about being assigned this avatar?
2. What are your initial reactions after reviewing this avatar’s photo and biography?
3. What are your isms or biases with regards to people who reflect this avatar?

Part II: Virtual Field Study Activities
You have been provided with a variety of social networking site landmarks in SL that are outside of Nightingale Isle. Sign into SL as your assigned avatar and go into these sites acting as if you are this person. You may not change the assigned avatar in any way. You are not to divulge that you are a student engaging in a project. Plan on spending at least ten hours in SL.

Part III: Synthesis Paper
Upon completion of the activities within SL, write a 4-5 page paper incorporating the following:
1. What attitudes, biases, and isms did you bring with you into the sites you visited as your assigned avatar? How did this affect your interactions with other avatars in SL?
2. How were you treated by other avatars in SL? How did you feel about that?
3. If you had been able to change your assigned avatar before visiting SL social networking sites, what changes would you have made to increase your level of comfort?
4. Integrating course concepts and personal lessons learned during this assignment, explain how you might use and apply this knowledge in the nurse educator role.
5. How do you anticipate your nursing practice will change after completing this field experience and course?

Part IV: Class Presentation
Prepare a 3 slide presentation on your experiences in SL that integrates related course concepts. Include 1) a summary of your experience in SL; 2) integration of the SL field study experience with course readings and discussion; and 3) a discussion of how you will use what you have learned to create an inclusive nursing education environment (give specific examples). These slides will be presented during the last 2 hours of class.
Examples of Diverse Avatars that can be purchased in SL marketplace.
Lacey Tigerauge

Abukar Kariunga

Cody Wheelwright
Louie Macalroy

Lottie Botside

Jenice Brunsen
ROLE PLAY SIMULATION STORIES

As the students ventured out into the virtual world of Second Life, they took the avatar stories with them and played them out with other avatars they met. As the stories became more and more real to the students, they elicited some interesting responses.
“Being treated like this in real life would have a negative impact on how I viewed myself.”

“Other Avatars wouldn’t come close to me.”

“Other Avatars wouldn’t come close to me.”

“My fear of others thinking I was a terrorist might have been my own bias.”

“I still bring my own personality to my avatar - A bit of projection?”

“I was nervously excited to get started.”

“I think I have a better idea of what being a minority is like.”

“I think I have a better idea of what being a minority is like.”
“I found my inner voice. I felt empowered to do things I wouldn’t do in real life.”

“How I thought I would be treated affected the way I interacted with others.”

“Through this I gained an appreciation for my biases and prejudices.”

“Other Avatars wouldn’t come close to me.”

“If I had a choice I would lose the wheelchair.”

“Homophobia.. Why were other male avatars afraid I was hitting on them?”
Deepa Islar

“I thought since I was a millennial I would love this.....I didn’t.”

“I encountered the micro-aggression of disability blindness.”

“I found I judged people because of their appearance...that surprised me.”

“Doing this assignment made me realize that I have biases about certain age groups that are not true.”

“People learn in different ways, and it is important to include a variety of techniques.”
Destiny Endersleigh

“I thought since I was a millennial I would love this…..I didn’t.”

“Other avatars made rude comments about my clothes asking me if I got them at a thrift shop?”

“I would have been more comfortable if I looked like myself.”

“After completing this assignment, I have noticed the lack of inclusivity in my place of work.”

“When I was at the beach I was told that I wouldn’t get any darker if I sat in the sun.”
Javan Soulstar

“I didn’t interact with others because I was afraid how they would react to me.”

“I projected my own biases on my avatar. I thought people who think badly of me because of how I looked.”

“I didn’t want the homeless avatar to hang out with me.”
“I thought other avatars would judge me because of my size. So, I stayed to the outside of the social places.”

“If I had a choice I would have made my avatar slimmer.”

“Initially, I was worried I would project my feelings of insecurity on my avatar.”

“When I encountered other avatars in my travels, they ignored me and moved away from me.”
“I was confident that my avatar would be an outcast and be ignored.”

“When I met my avatar I was mortified. I didn’t want to be an old woman.”

“Other avatars didn’t understand why I would choose to be old when I could be young and beautiful.”
“At first I was nervous to play a homeless person. I was amazed at how some people reacted to my avatar.”

“I found that he was either ignored/taunted or pitied.”

“Why would I want to be a homeless man when I could choose to be anyone out in Second Life.”

“As a virtual person, you can create all of your attributes and even your personality to some extent.”

“One avatar listened intently to my story, and then offered support, money, and words of wisdom.”
Publications About This Research

Featured Article

Teaching/Learning in Second Life: Perspectives of Future Nurse-Educators

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Keywords: Second Life; online virtual world; virtual reality; simulator; simulation; nurse-educator; nursing education; innovative teaching/learning strategies; teaching/learning; computer self-efficacy.

Abstract

Background: Innovative teaching/learning strategies that simulate real world situations are needed. First, the virtual world of Second Life (SL) provides an opportunity for nurse educators to develop training so that students can experience realistic learning experiences that are transferrable to the real world of nursing practice.

Methods: Students enrolled in a graduate nursing education course were invited to complete pre- and post-activity surveys regarding perceptions and experience related to using SL as a teaching/learning strategy.

Results: The simulated role-play experiences in SL helped 90% of students to apply concepts regarding the lived experience of marginalized persons, seven described meaningful learning experiences; 11 reported a sense of presence and connectedness, barriers and challenges related to the self-efficacy and communication within the virtual world were identified.

Conclusions: With careful planning, the use of SL as an innovative teaching/learning strategy for nursing education was validated.

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Nurse-educators are facing unparalleled challenges to address the changing demographics and learning styles of today’s learners and the ever-evolving, complex requirements of the practice environment. In addition, many of today’s traditional-age college students have been raised in a multi-cultural, multi-ethnic, global world. This generation has grown up with technology in all aspects of life. Communication, music, entertainment, and education (Raffin, Seppanen, Leonard, & Day, 2006; Billing, 2007). These factors, coupled with the knowledge explosion and complexity of new information technologies, have nurse-educators revaluing the relevance of current teaching strategies. Innovative educational strategies are needed to better prepare nurses to succeed in complex health care environments where quality and safety are paramount.

Virtual reality software and environments such as Second Life (SL), Linden Labs, San Francisco, CA) hold promise as part of the solutions by providing an immersive and interactive platform for educational experiences that simulate real world situations. Such platforms offer opportunities to expose nursing students to learning in a new way. The purpose of this small, exploratory study was to trial the use of SL with graduate nurse-educator students, and to obtain insights regarding this innovative teaching/learning methodology.

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Using Virtual Simulation to Teach Inclusivity: A Case Study

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Professor, Department of Nursing, Bethel University, St. Paul, MN 55112, USA

Keywords: simulation, virtual reality simulation; Second Life®; nurse; inclusivity; cultural awareness; nursing education; innovative teaching/learning strategies; role-play.

Abstract

Background: The topics of inclusivity, diversity, and cultural awareness are difficult to adequately explore in a traditional classroom setting. The use of the virtual platform of Second Life® afforded a unique opportunity to use virtual role-play simulation to experience what it is like to walk in another's shoes.

Method: Fifteen graduate nurse educator students enrolled in a course titled “Inclusivity in Nursing Education” were initially assigned a customized avatar, representing a marginalized person for use in a role-play simulation in the virtual world of Second Life®. Two written assignments regarding the learning experiences were evaluated using a qualitative evaluation rubric.

Results: Students indicated that they increased their own capacity to understand, appreciate, and relate to people different from themselves.

Conclusion: Although future research is needed to determine the full extent to which virtual platforms can be used to foster inclusivity, this case study demonstrates that such virtual learning regarding complex topics can take place in the virtual world.

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To facilitate safe and effective nursing practice, nurse-educators strive to develop curricula that facilitate an appreciation and understanding of diversity and help nursing students learn to understand and interpret patient cultural frames of reference as filtered by their own lens (Pyskowicki, Raman, 2013). Because inclusivity and cultural competency are difficult topics to address in the classroom and nursing students have varied clinical experiences that expose them to these concepts, an innovative approach to address these concerns was needed. This article describes the use of Second Life® (SL) as an interactive learning environment and how SL facilitated graduate student understanding in the classroom.

Theoretical Underpinnings

Nursing education is moving from traditional pedagogy to the use of constructivist pedagogy, which shifts the role of...
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References


