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Student Perceptions of 360-degree Video Simulation on Clinical Learning

Authors:

Valerie Pauli EdD, MSN, ACNS-BC, CNE; Tsu-Yin Wu, Ph.D., RN, FAAN;

Kathryn Hughesdon Ph.D., RN

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Background

- To address the need for an innovative educational intervention that addresses:
 - Social Determinants of Health (SDOH)
 - Culturally competent care



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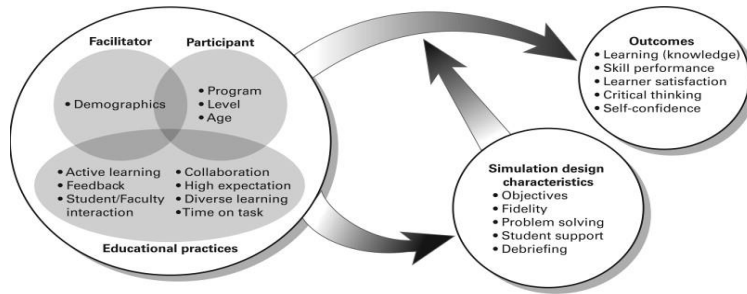
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Framework

Frameworks:

The NLN Jeffries Simulation Theory (2016)

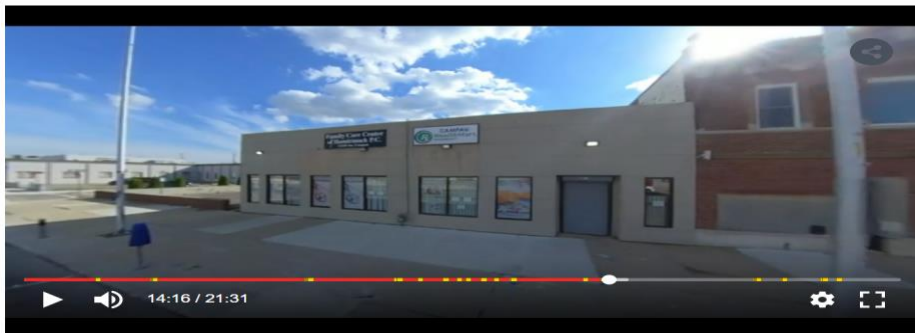
International Association of Clinical Simulation's (INACSL, 2016)



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Purpose

- Explore student perceptions of how 360-degree video simulation could replace, enhance, or have no effect on traditional clinical learning experiences.



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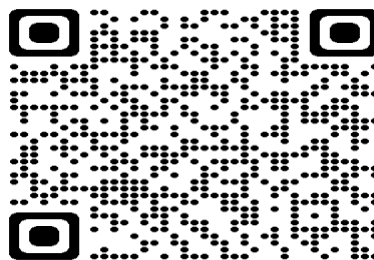
Methods

- A qualitative research methodology.
- Purposive sampling method was used.
 - First-year, second semester baccalaureate nursing students.
- Open-ended question on the posttest survey.
- Content analysis was used to categorize data



The Intervention

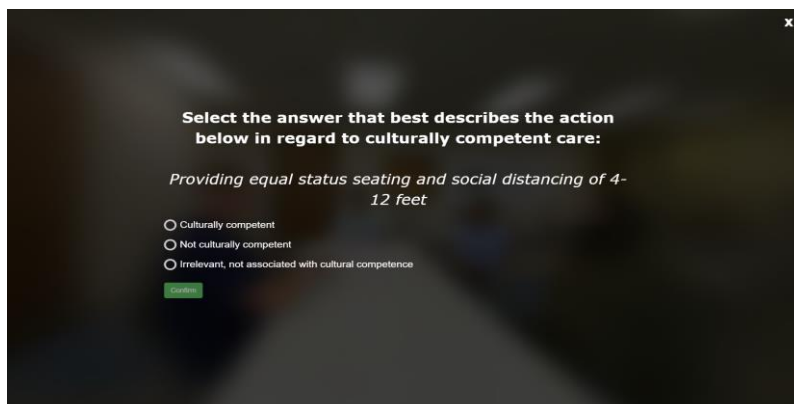
1. Pre-test
2. Pre-brief: YouTube Video:
3. 360-degree Video (Interactive 21-minutes)
4. Debrief
5. Posttest



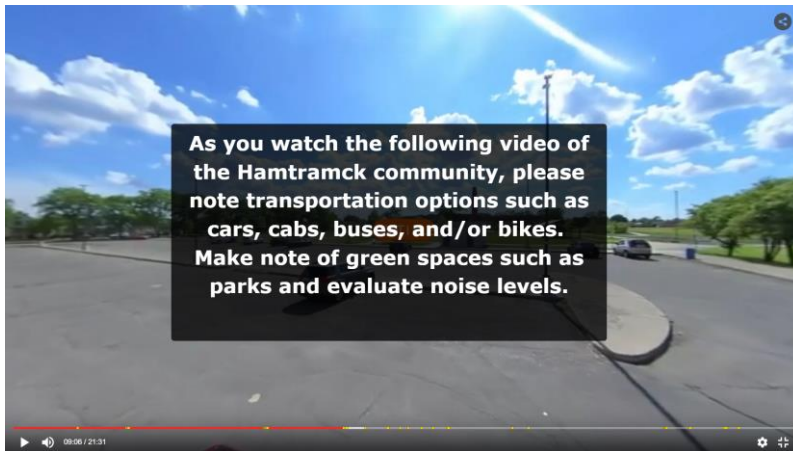
360-degree Video Clips: Culturally Competent Interviewing Skills



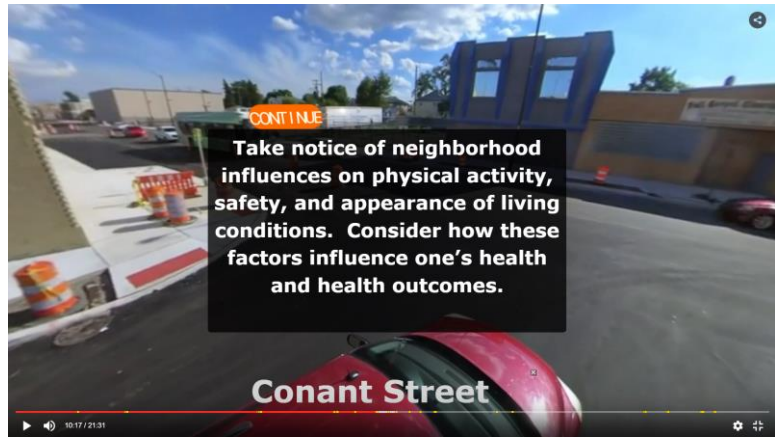
Video Clips: Interactive Built-In Questions



Que Card and Actually Video Footage (SDOH)



Que Cards

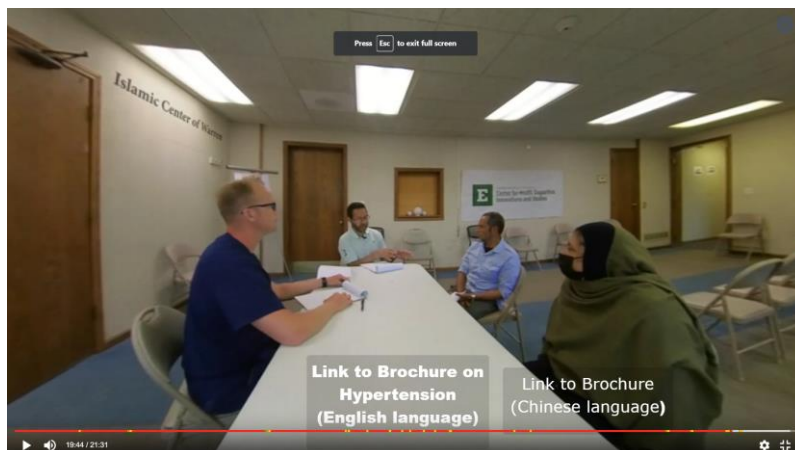


Information Sharing



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Health Literacy



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Scenario Objectives

- 1. Understand factors that contribute to health inequity that the patient experienced within the home environment.
- 2. Identify patient's care needs and barriers to care.
- 3. Describe a patient's educational attainment, language barriers, and health literacy concerns.
- 4. Identify conditions in the living environment which impact quality of life (QOL).
- 5. Recognize food insecurity, poverty and financial concerns impacting client's overall health.
- 6. Summarize various barriers to accessing care for the patient.
- 7. Identify positive factors that the patient has including alternative health practices and diet.
- 8. Recognize culturally appropriate communication skills and chronic diseases.

Debriefing Phase: Reaction

- What went well?
- How did simulated experience make you feel?
- Reflection questions such as: Were there any actions you would do differently if you were to repeat this scenario?

Debriefing Phase: Analysis Phase

- **Example**

- What forms of mass transportation did you see? Parks? Green spaces? How would neighborhood influences help or hinder physical activity? (Simulation Objective Addressed: 1, 2, 4, 6)

Guided faculty responses: Metro buses, trains, and cabs were noted in the video. These modes of transportation would help individuals get to appointments. Information provided in the video highlighted the Community Partnership Program and the Detroit Department of Transportation. Green spaces noted for walking or playing sports. Zussman Park and Pope Park filmed.

Consolidation Phase

- 1. What factors did you identify related to communication with the patient?
- 2. Think about your own level of skill in communicating with patients and families who need interpreting services. What are 2-3 alternative options to use?
- 3. How do you improve your own communication skills?
- 4. Now let's revisit the objectives of this experience...." ● How can you apply the knowledge you acquired through this experience to real patients? ● What is one take-a-way from the experience?

Results

- Ninety-five percent (n=87) of the participants perceived that the simulation experience enhanced clinical learning by increasing clinical judgement skills in relation to:
 - caring for diverse patient populations.
 - overcoming language barriers.
 - collaborating with peers to expand their knowledge related to the SDOH.

Theme 1: Enhancing clinical with knowledge for caring for clients with different cultures Student Quotes

- “The simulation can **enhance** clinical. I think it is good to get exposure to **different cultures**, so you know how to handle the scenario correctly before going off into clinical and working with different cultural groups.”
- “**Enhance** because it makes you realize that other people may not have it as easy as you **due to their culture and race**. Made me also realize that whenever I get a new patient, I should always be thinking deeper than just looking at the patient.”
- “**Enhance** my clinical because I am in a location where **there are many different cultures**. Although I knew most of the basic information in the video, it was a nice refresher to apply to my clinical setting. This information is something everyone should know and be able to apply to the clinical setting.”
- “**Enhance**, helped me gain a different perspective and **understand cultural competency better**”.

Theme 2: Enhancing clinical with knowledge caring for patients with language barriers and needs

- “It can **enhance** with one of my clinicals. If I come across a patient who **is not well with the English language**, I now know I should seek an interpreter (a certified one). A family member or friend should not really be used as one because they might mix words around or may not want to give a patient certain bad news.”
- “**Enhance-** allows me to be more mindful that not everyone **has access to the same resources**.”
- “**Enhancing** ability to **communicate with other languages** and other cultures.”
- “The 360 degree has **enhanced** my ability to **recognize barriers** keeping people from getting the care they need and change my actions/thought process on how I will help them.”

Theme 3: Benefits of additional exposure and knowledge

- “**Enhance**. I surprisingly enjoyed doing this simulation more than I thought I would. I like how it was live and not a cartoon. It also gave me **times to think before actually having to do the task immediately**. I think it would be smart to have clinical every other week and then a simulation every other week.”
- “**Enhance-** provides **additional information** I might not be exposed to in clinicals.”
- “It can **replace** with one of my clinical because in hospital, I don't really get to see situation like this, and I think that it really open up and **give me more information** that I didn't know.”
- “I think it could **replace** a clinical for community health since it was so thorough in its information and questioning. As the type of learner I am, I found it helpful to watch the scenario happen and actually get to take a look into **what the life and surroundings** of that patient may be like versus just picturing it our minds.”

Limitations

- First simulation with a full cohort of students after pilot study.
- Multiple instructors facilitating the simulation debrief.
- All students enrolled in the course were required to complete the simulation but participation in the study was not required; thus, there may be missing some data and differing viewpoints.
- students are from one university/nursing program, so future research would benefit from assessing the impact of this with other nursing student for a more diverse sample.

Conclusion

- Participants noted how the 360-degree video delivered important, standardized information and afforded students an opportunity to engage with classmates.
- First- year, second semester nursing students valued the 360-degree video scenario as enhancing their clinical learning.
- This type of simulation can be used as a complimentary teaching-learning method while being a long-term solution for alternative clinical experiences.