The Effectiveness of Virtual Clinical Simulation on the Transferability of Clinical Nursing Skills to Practice

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NON-DISCLOSURE

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LEARNING OBJECTIVES
- Identify the purpose of the qualitative interview study
- Describe future implications for the use of virtual simulations in nursing education
- Determine further research studies to support virtual simulations in nursing education

NON-DISCLOSURE
- The presenter indicates that there is no real or perceived vested interest that relates to this presentation.
- There was no sponsorship or commercial support given to this author.
Abstract

- Analyze the use, implementation, and integration of virtual clinical simulations (VCS) as emerging technology in nursing education and practice.

- Purpose of this qualitative interview study was to determine the impact of the use of a VCS program called Shadow Health on critical thinking, clinical reasoning skills, and psychomotor skills, and the transferability of those skills learned in an online Health Assessment course to real-world application.
Introduction

- Nursing education programs lack sufficient clinical practice teaching sites to adequately educate and prepare nurse clinicians.

- The NCSBN found that up to 50% of clinical simulation could be substituted for traditional hands-on learning experiences.

- The expense of initiating and sustaining faculty training in clinical laboratory simulations and lack of resources prohibit some nursing programs from adopting such efforts.

- Use of virtual simulations successfully used in other disciplines however, new to nursing education.
Research Questions

- **Q1.** How did the participants’ critical thinking and critical reasoning skills change after using the VCS in the Health Assessment course?

- **Q2.** How did the participants apply the assessment techniques learned using a VCS to real-life nursing experiences?
Methods

  - Semi-structured interviews took place remotely using the ZOOM meeting room for approximately 30-40 minutes per participant
  - Audio-recordings were transcribed and sent for member checking
  - Open-coding procedures were implemented
  - The codes and categories obtained were imported into the ATLAS.ti. program
Participants

Criteria
- Completed the Health Assessment course within one year
- Must be working as a RN
- Students were not the researchers students
Results

 Themes:

• Increased confidence of assessment skills
• Improved recognition of patient condition or status
• Improved communication
• Adaptation of assessment techniques
Discussion

- The results demonstrated that all but one of the participants agreed that their critical-thinking and clinical-reasoning skills improved as a result of using Shadow Health as a learning tool.

- The results were consistent with other research studies, simulation and virtual simulation have shown to improve critical-thinking and clinical-reasoning skills.
Limitations

• One small RN-BSN program in northeastern U.S.
• Using ZOOM meeting room
• Time lapse between course completion and interviews
Conclusions

- The IOM, the TIGER Initiative, and QSEN competencies support and recommend the use of technology in nursing education.
- Ethically, nursing educators need to implement innovative teaching strategies to provide adequate clinical education experiences.
- Faced with limited clinical experiences and barriers of implementing simulation laboratories, VCS are emerging as alternative and supplemental clinical experiences.
- This study adds to existing research literature and to validate using VCS as an effective teaching strategy.
Implications

- Utilize VCS in nursing education programs
- Utilize VCS for professional development; competencies and introduction of new skills
- Implement VCE for Interprofessional Education (IPE)
- Utilize VCS to prepare telehealth nursing practitioners
Further Research

• Greater scales using multi-site universities/colleges with increased sample populations

• Investigate preparation protocols for students using virtual environments and the influence of preparation on student learning outcomes need

• Comparative studies between F2F vs Virtual assessments of student learning outcomes
References


