Simulation Implementation Utilizing Telepresence Robots in an Online Nurse Practitioner Program

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Objectives

► Describe the need for innovative methods of formative and summative assessment
► Describe the Johns Hopkins Post Master’s Pediatric Acute Care Nurse Practitioner (NP) program
► Demonstrate the use of telepresence robots in a simulated setting
► Discuss the limitations of the use of telepresence robots in a simulated setting
Simulation for formative and summative assessment

- Simulation is used widely in nurse practitioner programs
- Increasing numbers of online programs
- Increasing need for innovative solutions to assess student progress
Johns Hopkins Post Master’s Acute Care Pediatric Nurse Practitioner Certificate Program

- Post graduate certificate for currently certified pediatric primary care nurse practitioners
- Most working full time
- Live in various states across the U.S.
The need

► Students have exposures to:
  • different types of patients and conditions in the clinical setting
  • various preceptors
The Innovation-telepresence robots for use in simulation

Goals:

• Provide a robust, interactive opportunity for formative evaluation and competency development remotely
• Provide students an opportunity to manage multiple patients during this experience
Remote simulations: telepresence robot

- A user operated device that allows the learner to control what they see and how they interact with participants in a simulated experience.
- Allows the end user/learner to participate in simulations taking place on-site.
Simulation development

► Developed a multiple patient simulation experience
  • Team included an expert in healthcare simulation
  • Utilized the National League for Nursing Jeffries Simulation Theory
  • Specific diagnoses selected from the acute care PNP competencies

► Students provided with a patient census
Telepresence robot in action
Benefits

► Able to evaluate students in managing a variety of patients without the need for multiple room setups
► Students able to participate from their homes
Limitations

- Requires faculty engagement in a similar fashion to traditional simulation
- Time involved in the scenario is unchanged from in-person simulation
- Technology limitations
  - Unstable internet, disconnections
Future steps

► Multiple simulation room set ups
  • Multiple students utilizing multiple robots

► Increased use across programs
  • History taking, mental health assessment, etc.
Questions

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