

# The evolving artificial intelligence (AI) patient: Benefits and challenges



A stylized illustration on the left side of the slide depicts three medical professionals in yellow, blue, and green silhouettes. They are gathered around a patient lying on an orange gurney. The patient is covered with a purple blanket. The background is white with scattered colorful dots in yellow, green, blue, and orange. A thin green line connects one of the medical professionals to the patient area.

SIMULATION:  
BRINGING LEARNING TO LIFE

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# WELCOME

## Chelsea Lebo, MSN, RN, MEDSURG-BC, CHSE



Chelsea Lebo is the Simulation Facilitator of the Simulation and Clinical Learning Resource Center. She joined the nursing department in 2019, but has been at The College of New Jersey as a nursing adjunct faculty since 2016. Chelsea received her Master's in Nursing (MSN) from Walden University with a focus on Nursing Education. Chelsea's clinical background includes medical surgical, trauma, neurology, and orthopedic nursing. She is ANCC Medical Surgical Board Certified, as well as a Certified Healthcare Simulation Educator. In the past, Chelsea has worked as a clinical nurse educator in the hospital setting, which included coordinating the New Graduate Nurse Residency Program, facilitating orientation, and organizing other educational programs. Chelsea is an active member of the American Nurses Association, Society for Simulation in Healthcare, and Sigma Theta Tau. She currently teaches and has taught a range of Nursing Courses including: Development of Unitary Man and Environment Across that Lifespan, Holistic Health Interventions throughout the Lifespan, Caring in Adult and Elder Health I Lab, Caring in Adult and Elder Health II Lab and various simulations at both the undergraduate and graduate levels.

# WELCOME

## Norma Brown, MSN, RN, CHSE



Norma Brown graduated from Ball State University with a BSN and worked in Pittsburgh, Pennsylvania on various medical surgical units before moving to the Philadelphia area to complete a master's degree in nursing at the University of Pennsylvania. She has worked in critical care and also worked part-time in various teaching positions before finding her home in simulation at The College of New Jersey. Her current position combines managing the clinical skills laboratory as well as coordinating all the simulation experiences for the undergraduate BSN students. The small graduate program at The College of New Jersey is also incorporating simulation and Norma is involved in the coordination the physical facilities as well as the curricular implications. The simulation staff includes a simulation facilitator and a simulation operation specialist. The simulation areas include three separate lab areas on campus plus the inclusion of some virtual education. Norma has presented at many SSIH conferences and INACSL as well as the International School Nurse Conferences, sharing her experiences in using simulation to enhance the learning experiences of students. This spring she will be teaching a Simulation course in the Nursing Education graduation program at the college.

# The Plan for AI Integration



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- Students begin with their first AI patient in health assessment class focusing on patient interviewing skills and health history.
- Junior and senior year in med surg students will revisit the AI patient, where they see the patient aging and developing more medical problems.
- Evaluation survey completed by students
- What are the benefits and challenges of using a virtual AI patient



# Development of AI Patients

- Obtained a grant through Patient Communication Simulators (PCS) to use their Spark program and equipment
- Originally plan to use virtual reality (VR) headset (Oculus Go) with scenarios, but with COVID changed the set up to using the program on the students desktop computer
- Predeveloped scenarios PCS Spark has vs. creating own



Photo created by PCS Spark

# Results

## Benefits

- Being able to speak to the patient and have them respond
- Detailed patient information in the chart and in the conversation with the patient
- Good reinforcement of medication reconciliation, patient history taking, and completing a detailed patient interview
- Could listen to heart, lung, and bowel sounds

## Challenges

- Technical difficulties with loading the simulation
- Patient responses not always consistent
- Some upperclassmen felt it was geared towards a newer nursing student
- Unable to visually assess other physical symptoms such as edema of legs, skin, pupils, pulses, etc.

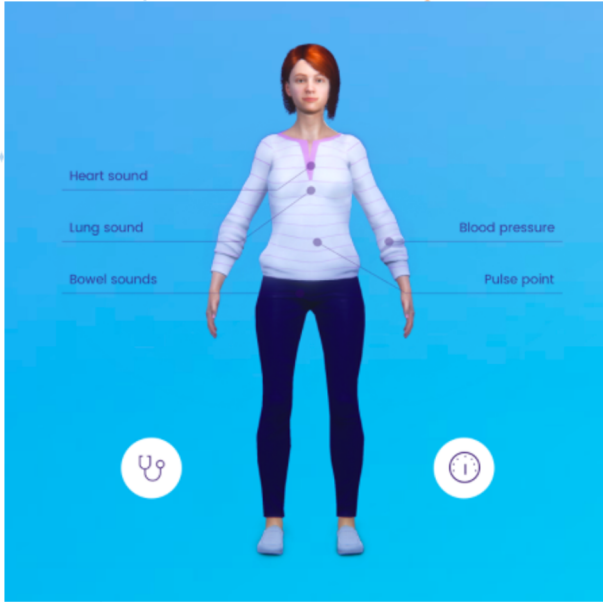


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# Conclusion

Benefits to the beginning student is that there is a formula to follow in the communication process. They learn the right questions to ask and how to ask them. Students are also then familiarized with the patient and AI program.

Disadvantage is that the avatar only anticipates certain styles of questions and is unable to process idioms etc. The programming of the AI is tedious and takes an extended amount of time and effort on the part of the instructor.

The results show that there is a progression in scores as the students become more comfortable with interviewing and progress through the program. The students enjoyed seeing the growth of the AI patient despite the challenges they faced with the utilizing the platform virtually.



Photo created by PCS Spark

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# QUESTIONS?

**Assistance provided by PCS Spark  
virtual simulation platform, which was  
greatly appreciated.**



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## THANK YOU!



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