

# Promoting Clinical Reasoning Abilities of Baccalaureate Nursing Students Using the Human Simulator

In a collaborative project with nurse education graduate students from Duke University, the UNCW School of Nursing faculty directed a project that tested the clinical reasoning abilities of undergraduate nursing students using the Human Patient Simulator. Infusing this technology as a teaching/learning strategy in nursing education has the advantages of interactive learning, repeated skill practice while reducing patient risk, immediate feedback from faculty, critique in a safe environment, enhancement of assessment skills and practice with decision-making situations. The equipment includes a laptop computer with manikin and compressor interface, a monitor screen capable of projecting typical vital sign trends, speakers to amplify faculty-directed voice sounds during clinical scenarios, and supportive manikin equipment such as a running

intravenous line, a draining urinary catheter, wound/incision manikin inserts, and life-like lung, heart and bowel sounds. During a 14-week adult health course, faculty assisted two graduate nurse educator students to develop scenarios for 44 undergraduate nursing students to treat and respond to human simulator functions as if they were caring for a real patient. When the clinical reasoning abilities during the human simulator experiences were compared to authentic clinical experiences, there was no significant difference for the two types of experiences. The implications of these findings suggest that human simulator activities could be beneficial at all levels of the nursing curriculum, the scenarios could be used in planning student remediation for clinical decision making and faculty could use the human simulator for scholarship activities that would support professional development.

Students Erin Bruchanski, Venessa Mattson and Keri Lloyd correcting respiratory complications of shock.



This project was a collaborative effort between UNCW School of Nursing faculty members, **RuthAnne Kuiper, Ph.D.**, assistant professor, nursing and **Lorna Bell-Kotwall, Ph.D.**, assistant professor, nursing and Duke University graduate students, **April Matthias, MSN, RN** and **Meki Jacobs Graham, MSN, RN.** [kuiperr@uncw.edu](mailto:kuiperr@uncw.edu)