Robotic telepresence by intensivists for night-shift coverage: Clinician perceptions.

Valerie Danesh, PhD, RN, CCRP, Assistant Professor, School of Nursing, University of Texas at Austin
Jeffrey Sadowsky, MD. Attending Physician, Orlando Health
Mackenzie Brown, student (Orlando, FL)
Mehak Batta, student (Orlando, FL)

Introduction: The purpose of this study was to assess clinician perceptions of the use of night-shift robotic telepresence by intensivists in adult Intensive Care Unit (ICU) settings. We hypothesized that nurses would view the technology positively, but may report challenges related to orienting family members to the use of telemedicine.

Methods: "RoboDoc" is a robotic telepresence program for multidisciplinary team rounding and assessments of deteriorations by intensivist physicians during night-shift. Critical care nurses and respiratory therapists in two community non-teaching hospitals were invited to complete voluntary anonymous surveys (10-item Likert scale with five reverse-coded items) to describe their opinions related to communication, concerns, and efficacy of the "RoboDoc" program.

Results: Communication, concerns, and comfort with robotic telepresence for the care of critically ill adult patients were rated by 21 night-shift clinicians. 95% of the surveyed clinicians agreed that communication with intensivists via remote presence was "Easy", and 76% preferred remote presence over telephone use. Comfort ratings and satisfaction scores were similarly positive across all age groups (21-60 years). Younger clinicians (21-30 years) were more likely to provide neutral or negative ratings compared to older clinicians (41-60 years) (26% vs. 5%, p<0.01).

Conclusions: Previous surveys related to robotic telepresence have provided information from patients and families. This is the first survey to document satisfaction data from direct-care clinicians. Most night-shift clinicians rated interactions with intensivists using robotic telepresence positively. While the overall ratings were positive, when concerns with the "RoboDoc" technology were present, they were related to perceptions of physician caring and technical capabilities inherent to telemedicine. These results provide preliminary data to further explore technology adoption related to telemedicine program training and acceptance by clinicians.

Previously presented as a poster at the Society of Critical Care Medicine.