

Guidelines for FAST, on a 5-point Likert scale (1-Poor, 2-Fair, 3-Adequate, 4-Good, 5-Excellent). Users rated instruction and their FAST ability on a 10 cm visual analog scale (VAS). Data were analyzed using descriptive statistics.

Results: Twenty-four novice users participated in the study. None had prior FAST experience or training. Eight were randomized to LI, and 16 users were randomized to RI. Mean TQ score (95%CI): Overall LI TQ score 4.1 (3.8,4.4) Overall RI TQ score 4 (3.8,4.2). Each user was able to obtain all 5 views with at least an adequate rating (3). No significant differences were seen between LI and RI TQ scores in the cardiac, RUQ, LUQ, pelvic, and thoracic views. User scores: Mean (95%CI) LI Instruction 9.8 (9.6–10) RI Instruction 9.6 (9.1–10) LI User ability 9.3 (9.1,9.8) RI User ability 8.8 (8.2,9.7).

Conclusion: Novice users can adequately obtain FAST images using real-time remote instruction using videoconferencing. LI and RI were shown to be equivalent.

345 **Implementing Interdisciplinary Teamwork Training: Does the Method Matter?**

Cherri Hobgood, Donald Woodyard, Karen Frush, Susan Sawning, Susan Promes, Gwen Sherwood, David Hollar, Laura Maynard
UNC School of Medicine, Duke School of Medicine and Nursing, UCSF, UNC School of Nursing, Duke School of Medicine

Objectives: Teamwork training is becoming an integral part of emergency medicine education but little information exists on how to best train and assess interdisciplinary learners in teamwork competencies. We conducted a randomized controlled trial of four pedagogical methods used for teamwork training. Primary outcomes measured were changes in learners' teamwork attitudes, knowledge, and skills.

Methods: Two hundred and three senior nursing students and 235 fourth-year medical students (total N = 438) from two major universities completed a one-day interdisciplinary teamwork training course using Team-STEPPS. All participants received basic didactic content followed by random assignment to one of four educational interventions administered in equal time allotments: didactic (control), audience response didactic, role play, and human patient simulation. Student knowledge and attitudes were assessed pre and post intervention with a 36-item teamwork attitudes instrument and a 12-item teamwork knowledge instrument. Skills were measured post intervention with a team based standardized patient (SP) encounter, scored by the SP with a 10-item student teamwork skills performance checklist, and by blinded raters with a 10-item modification Mayo High Performance Teamwork Scale (HPTS). Differences between the four cohorts were determined using one-way analysis of variance (ANOVA).

Results: All four cohorts demonstrated improvement in attitudes ($F_{1,370} = 48.7, p = .001$) and knowledge ($F_{1,353} = 87.3, p = .001$) pre-to-posttest. No educational

modality appeared superior for attitude ($F_{3,370} = .325, p = .808$) or knowledge ($F_{3,353} = .382, p = .766$) acquisition. No modality conferred significantly superior teamwork skills ($F_{3,18} = 2.12, p = .134$).

Conclusions: Basic teamwork attitudes, knowledge, and skills can be substantially improved using a variety of educational methods. Institutions should institute interdisciplinary teamwork training utilizing the educational modalities that are best supported by their resources.

346 **Faculty Participation and Perceptions in a Novel Human Factors Directed Resident Evaluation Tool**

Flavia Nobay, Melissa Squires, Terry Fairbanks, Manish Shah
University of Rochester

Objectives: Performance evaluations have traditionally been used to improve emergency medicine resident performance, yet attendings have notoriously poor participation rates. Our goals of this study were to compare usage rates of a commercially available internet-based evaluation system to a novel in-emergency department (ED) kiosk, touch screen system that integrates human factors principles into its design (Helmet Fire [HF]). Secondly, the study explores provider perception between the two systems.

Methods: Our residency based academic ED replaced its existing resident evaluation system with the HF system for a 4-month pilot. A retrospective analysis of the usage rates by emergency medicine (EM) attendings was conducted to compare the same 4-mo period in 2006 and 2007. An electronic survey instrument using a 1–5 Likert scale assessed perceptions of attendings. Descriptive statistics were calculated.

Results: Two hundred and sixty-two residents' evaluations were generated during the 4-mo pilot period compared to 142 in 2007 (85% increase) and 169 in 2006 (55% increase). Thirty-one of 45 survey responses were received (69%). Seventy-six percent of respondents believed the system was superior to other resident evaluation tools. Eighty-seven percent said their reporting sessions took 3 min or less. Sixty-five percent felt the residency data collection topics effectively covered the spectrum of training issues (score of 4 or 5) and 91% felt that they were able to appropriately evaluate a resident through the HF system. The majority felt that the HF approach to evaluation was more comfortable than the traditional e-mail evaluation system. Eighty-nine percent felt the HF touch-screen format was helpful.

Conclusion: Resident evaluation systems designed with human factors considerations may have a significant advantage over traditional systems. Given the participation rate and perceptions of the HF system among EM faculty in our study, this system has the potential to significantly improve the collection of resident evaluations. Additional studies are necessary to determine whether this improvement is sustainable.