

SESSION TYPE: Oral Presentation

TITLE: HOW COMPARABLE ARE MEDICAL STUDENT EMPATHETIC INTERACTIONS IN A SIMILAR VIRTUAL PATIENT/STANDARDIZED PATIENT ABDOMINAL PAIN SCENARIO?

ABSTRACT: Second year medical students were randomized to a videotaped interaction with either a Standardized Patient (SP) or Virtual Patient (VP) with identical scripts for RLQ pain. Videotapes were reviewed for student empathy and nonverbal communication skills. In general, SP interactions were felt to be better than those observed with VP's. However, the VP interaction allowed for a consistent opportunity to assess empathic student response to a precise emotional moment.

BACKGROUND: Standardized Patient's (SP-s) and Virtual Patients (VP-s) permit students to learn and practice interviewing skills in a secure, controlled and safe learning environment with the opportunity for repetitive practice and feedback without adverse consequence. Recent studies at the University of Florida (UF) and other institutions have begun to validate the potential use of VP-s to assess and teach medical interviewing skills. These studies have documented similarities between SP-s and VP-s related to solicitation of information, data collection and content validity, however, the medical interview requires more than just the simple collection of answers to medical inquiry. The manner in which students conduct themselves during medical interview will leave the greatest and most lasting impression on both student and patient. The current study was designed to compare in a randomized study, medical students non-verbal communication and empathy skills when randomized to a SP versus a VP abdominal pain scenario.

METHODS: After informed consent, second year medical students (n=58) enrolled the "Essentials of Patient Care" core curriculum course were randomized to a 10 minute taped interview with an SP (N=25) or VP (N=33) with RLQ abdominal pain in a simulated clinical examination room in the UF clinical assessment center. The VP scenarios were projected (life-sized) on the examination room wall and students conversed with the VP via a commercially available speech recognition engine (Dragon Naturally Speaking Professional 8.0). Prior to the study students underwent voice recognition training to interact with the VP. The SP and VP had identical scripts which included interjecting the challenge statement; "I'm really scared. Can you help me?", as an empathetic trigger. Videotaped student interactions were rated by clinicians (N=6) with attention to overall interview skills and data collection. Student interactions with respect to nonverbal communications, empathetic behavior and response to the challenge statement were rated using a Likert scale modeled on the Kalamazoo consensus statement with anchor descriptors and a semantic differential to measure affective responses. Data continues to be collected from multiple raters and updated (Data= Mean+/- SEM) with statistical significance determined using the Student's t test.

RESULTS: Data continues to be collected regarding all reviewing clinicians regarding statistical significance. The following trends have emerged (and will be discussed)

- 1) Overall satisfactory performance was more evident in SP interactions than VP interactions. (SP=60%, VP=18.2%)
- 2) The VP generated a response to the challenge statement at a slightly higher percentage rate than the SP (VP=78.8, SP=76%) (Statistical significance to be determined). The VP was actually most reliable in initiating the exact statement where the SP either “ad libbed”, altered or omitted the statement.
- 3) More spontaneous empathetic moments were evident in student interactions with the SP (84%) as compared to the VP (27.2%). Scores reflect a higher empathy and support rating for student interactions with SP’s as compared to VP’s
- 4) Considerable overlap in the quality of the emotional response was observed between both groups with responses most frequently being brief and point directed. Isolated instances of higher order empathetic responses were observed in both groups.
- 5) Nonverbal communications (eye contact, body lean, head nod) demonstrated considerable overlap, with more significant deficiencies more evident in the SP-s than the VP-s

CONCLUSIONS: Medical students responded to an empathetic challenge statement by a VP, but expression of spontaneous empathetic moments occurred more frequently in the SP scenarios. Although SP scenarios currently provide a better venue for assessment of empathy and nonverbal skills, as technology matures VP scenarios could enhance SP teaching and testing programs as compared to VP-s. The VP did provide a more consistent measure of response to a particular challenge statement for generating an empathetic response. Both the SP (and despite technical shortcomings, the VP) provided students with empathetic opportunities beyond those provided by the challenge statement.