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Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health

Title

Use of Multidisciplinary Simulation to Improve Communication Skills, Interpersonal Relationships, and Job Satisfaction in Emergency Medicine Residents

Permalink

<https://escholarship.org/uc/item/725504pt>

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 18(5.1)

ISSN

1936-900X

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Publication Date

2017

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Objectives: We hypothesized that the addition of video would improve our residents’ empathy skills more than a post-encounter assessment form alone.

Methods: First-year EM residents (n=16) participated in the study during one academic year. All residents completed two videotaped USP encounters during the first four months. After each encounter, the USP completed a CARE form, a validated empathy measure. All 16 interns were then individually debriefed. This included a self-assessment, review of the CARE forms, and goal-setting. The intervention group (n=8) also reviewed the videotapes of their USP encounters, while the control group (n=8) did not. All residents then completed two more encounters during the last four months of the year. USPs again filled out the CARE form after each encounter. At the end of the study, we invited all residents to review their videos. The CARE form has 10 questions with response options from 1 to 5 (1=poor, 2=fair, 3=good, 4=very good, 5=excellent). Student’s T-test was used to compare mean scores between the groups. A p value <0.05 denoted statistical significance between groups.

Results: CARE baseline scores were similar for the first two USP encounters (p>0.05 on all CARE items). After the debrief intervention, the intervention group had statistically significantly higher scores compared to the control group for the following questions: “How good was the doctor at explaining things clearly?” (4.5 vs. 3.13, p=0.012); “How good was the doctor at helping you to take control?” (4.13 vs. 2.38, p=0.038); “How good was the doctor at making a plan of action with you?” (4.13 vs. 2.38, p=0.038).

Conclusions: Video review of USP encounters during real clinical shifts had a significant impact on resident empathy. In the future, we envision this novel method to be particularly useful for interpersonal and communication skills remediation.

4 Use of Multidisciplinary Simulation to Improve Communication Skills, Interpersonal Relationships, and Job Satisfaction in Emergency Medicine Residents

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Background: Traditional simulation (TS) in residency training places the learner in a controlled environment and uses scripted confederates to assess for critical actions. Multidisciplinary simulation (MDS) which includes physicians, nurses, and ancillary staff as active participants has been shown to improve inter-professional communication. The use of MDS in which nurses and ancillary staff are active participants with resident learners has not been previously evaluated in its ability to effect

resident communication and interpersonal skills.

Objectives: The objective of the project was to evaluate resident perception of TS versus MDS in its ability to improve resident communication and interpersonal skills. We hypothesized that MDS would improve resident communication and interpersonal skills more than TS.

Methods: Ten Emergency Medicine PGY2-3 residents participated in a simulation curriculum involving TS ran by physician faculty and MDS including nurses and ancillary staff from their clinical workplaces. Cases were built upon high acuity scenarios. Residents were surveyed using a 5-point Likert scale on the effectiveness of each modality after 6 months of participation during which 4 multidisciplinary simulations and 4 traditional simulations were completed. Results were analyzed by an independent measures t-test.

Results: Residents felt MDS was more effective at improving communication (p=0.003), interpersonal relationships (p=0.007), and understanding the roles of nurses and technicians in critical situations (p <0.001) compared to TS. 10/10 (100%) respondents indicated that MDS improved workplace environment. Residents did not report a difference between MDS and TS in the effectiveness of improving confidence in caring for similar patients (p=0.29) which may be a result of high baseline confidence (Table 1).

Conclusions: Residents felt MDS enhanced communication skills, interpersonal relationships, and understanding of the roles of all team members better than TS. All respondents felt that participating in MDS improved their clinical workplace environment. MDS may also play a role in improving job satisfaction in the Emergency Department. The authors advocate a role for MDS in residency for assessing and training communication and interpersonal skills.

Question	Mean Likert Score	P-Value
How effective do you feel traditional simulation is at improving your communication skills during acute situations?	3.1	
How effective do you feel multidisciplinary simulation is at improving your communication skills during acute situations?	4.3	TS vs. MDS 0.003
How effective do you feel traditional simulation is at improving your interpersonal relationships?	3.1	
How effective do you feel multidisciplinary simulation is at improving your interpersonal relationships?	4.1	TS vs. MDS 0.007
How effective do you feel traditional simulation is at improving your communication skills during critical situations?	2.3	
How effective do you feel multidisciplinary simulation is at improving your communication skills during critical situations?	4.3	TS vs. MDS <0.001
Likert Scale: 5-Very Effective, 4-Effective, 3-Somewhat Effective, 2-Not Very Effective, 1-Not at All Effective		
Does participating in multidisciplinary simulation improve your workplace environment?	10/10 Yes	
Rate your confidence in caring for similar patients in acute situations after traditional simulation	4.1	
Rate your confidence in caring for similar patients in acute situations after multidisciplinary simulation	4.3	TS vs. MDS 0.29
Likert Scale: 5-Very Confident, 4-Confident, 3-Somewhat Confident, 2-Not Very Confident, 1-Not at All Confident		