STRENGTHENING INTERPERSONAL SKILLS THROUGH CLOUD-BASED VIDEO SIMULATIONS AND FEEDBACK

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PROGRAMMATIC INNOVATION

HCA West Florida has partnered with Javelin IO Solutions to implement video simulations for the assessment and training of resident interpersonal skills. The program is anchored by a cloud-based tool that allows residents to complete video simulations, receive individualized feedback and participate in training from any internet connected device, 24/7/365. Like a clinical simulation, the interpersonal skills simulation allows residents development and training in key competency milestone priorities.

BACKGROUND

A critical interpersonal skills 'gap' was identified in Internal Medicine residents at HCA West Florida Hospitals. Communication, leadership, and empathy, while needed to practice medicine in today's healthcare system, are difficult competencies in which to train and ensure proficiency. Moreover, while research supports that interpersonal skills can positively impact health outcomes, when residents are assessed in these areas it is oftentimes using subjective, unstructured approaches. With this in mind, operational solutions based on standardized, behavioral-based assessments, leveraging adult learning strategies tailored to Graduate Medical Education (GME) programs and aligned with ACGME Milestones and CLER Pathways of Excellence, are needed.

HOW IT WORKS

The resident accesses all training content through any internet connected smartphone, tablet, or laptop. While in the portal, the resident watches a series of real-life video scenarios, provides video responses to what he or she observes and how he or she would act in each scenario, and electronically submits each response. Video scenarios depict typical workplace interactions that involve key interpersonal skills. The resident’s submitted video responses are scored by trained assessors utilizing behaviorally-based scoring checklists aligned to ACGME milestones. Once scored, the resident’s feedback and training are posted in the online portal for review and study. Feedback and training include detailed behavioral analysis, suggested keywords and phrases, and model response videos. This simulation and feedback process is then repeated to gauge progress. Please refer to Figure 1 for more information.

HOW IT WORKS

1. Resident Takes Video Simulation
2. Certified Assessors Score Simulations
3. Online Feedback and Training Provided to Resident

PILOT STUDY RESULTS

In the middle of 2016, the authors systematically evaluated Internal Medicine residents from three HCA West Florida programs on their interpersonal skills. Employing a nonequivalent (i.e., pretest and posttest) control-group design, residents were assessed at two distinction time points, approximately five weeks apart. A total of 35 residents participated in which 21 were placed in the experimental group and 14 placed in the control group. Both the experimental and control groups received identical pre- and post-simulations while only the experimental group received feedback and training prior to the post simulation. Key Findings are presented below and in Figure 2.

Key Findings:
- 25% performance improvement in experimental group residents compared to control group residents with a 4% improvement, on average
- Highly significant difference (p < .0001)
- Communication, Empathy, and Leadership improved in a similar fashion
- HCAHPS behaviors improved by 27%, on average

RESULTS

Furthermore, 32 residents responded to a survey after the post simulation capturing their level of agreement with various aspects the program and process (Figure 3).

CONCLUSIONS & FUTURE DIRECTIONS

This innovation highlights the benefit of a systematic simulation and feedback strategy that improves interpersonal skills. The findings suggest that non-invasive, cloud-based video simulations leveraging formative assessment and micro-learning strategies, coupled with feedback and training, help to systematically close the interpersonal skills gap. These video simulations continue to be used at these two hospitals with talks of expanding to the larger healthcare system.

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