

Examining the long-term impacts of a Medical Improvisation course on participants' interpersonal skills and clinical confidence

Kimberly D. Christnacht MD Candidate, Deb M. Seymour PsyD., Tai M. Lockspeiser MD, Rachel J. B. Tan PHD, Alex Reed PsyD University of Colorado School of Medicine



Background

- Medical students frequently encounter uncertainty in clinical environments, requiring them to respond to unexpected patient interactions, interpret nonverbal cues, and collaborate effectively with healthcare teams.
- Theatrical improvisation emphasizes active listening, adaptability, and collaborative communication—skills that are directly relevant to clinical practice.
- Medical improv, a curriculum developed by Katie Watson, JD at Northwestern University and first implemented in 2002, applies these principles to healthcare training and has since been widely used to strengthen communication, empathy, and teamwork in medical learners.

Study Rational

- **Problem:** Medical students often feel underprepared for unpredictable clinical interactions requiring strong communication and adaptability.
- **Question:** Can medical improv training improve students' confidence, empathy, and collaboration?
- **Aim:** Evaluate the impact of the CUSOM Medical Improv elective on students' perceived clinical communication skills.
- **Hypothesis:** Students completing the course will report improved confidence, empathy, and awareness of verbal and nonverbal communication.
- **Study Design:** We conducted a cross-sectional survey study of two distinct cohorts to assess both immediate and longer-term perceived impact:
 - Current students who had just completed the elective
 - Prior participants now engaged in clinical training or practice

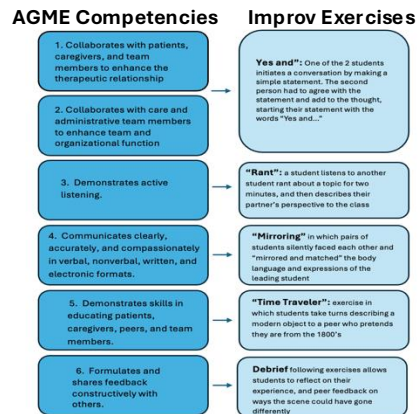


Figure 1. ACGME Competencies and Improv exercises

Methods

- **Study Design:** Cross-sectional survey study of two cohorts: (1) current students completing the elective and (2) prior participants.
- **Current cohort:**
 - 9 medical students who completed the CUSOM Medical Improv elective in Spring 2025 were invited to complete a post-course survey (Table 1)
 - Response rate: 100%
- **Alumni cohort:**
 - Past participants who completed the elective between 2019-2025 were contacted to assess retention and application of skills in clinical settings
 - Total invited: 101
 - Response rate: 16%
- **Survey design:**
 - Parallel surveys assessed comfort with communication, empathy, adaptability, and teamwork using Likert-scale items
 - Participation was voluntary and confidential
 - This study was reviewed by the Institutional Review Board and determined to be exempt
 - Included both quantitative ratings and qualitative free-response data
- **Analysis:**
 - Results summarized using top-box analysis (percentage selecting highest agreement categories) to improve clarity and reduce sparse data

Discussion

- Most respondents reported perceived improvements in empathy, confidence, and teamwork skills following participation in the medical improv elective.
- These findings support the use of medical improv as a novel approach to developing key interpersonal and communication competencies in medical training.
- Notably, some responses cautioned against making the course mandatory, suggesting that learner engagement and willingness to participate are critical to deriving meaningful benefit from the experience.
- This highlights the importance of maintaining a supportive, low-pressure learning environment for skills-based, experiential curricula.
- **Future Directions:**
 - Incorporate simulated patient encounters following course completion to objectively assess changes in communication skills
 - Evaluate longitudinal impact across different stages of training

Results

Table 1. Course evaluation responses from 9 students that participated in the Medical Improv elective at CUSOM during Spring of 2025.

Perceived Skill Improvement	%
Clinical Confidence	100
Practicing Nonverbal Communication	78
Interpreting Nonverbal Communication	89
Empathy	78

Table 2. Responses from 16 post-grads that took the Medical Improv elective from 2019-2024.

Perceived Skill Benefit	%
Confidence	88
Navigating Uncertainty	81
Empathy	81

*70% of post-grad respondents reported using skills from the course everyday or often in their clinical practice

Example narrative response from student after taking the course in 2025:

"This was a safe space to learn new ways to interact, practice new skills, engage with our classmates, and also learn how all this applies to and impacts patient care. ...I even took a leadership role in a code simulation, something I had never done before. I attribute this newfound confidence to skills and exercises from this improv elective"

Key Points

- Medical improv courses represent a low-cost, high-impact intervention for improving medical students' confidence and interpersonal skills.
- These courses effectively support development of communication, empathy, and teamwork in clinical settings.
- Participant buy-in and active engagement are critical to the success of the curriculum and the quality of the learning experience.

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