

Using Theater to Teach Clinical Empathy: A Pilot Study

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BACKGROUND: Clinical empathy, a critical skill for the doctor-patient relationship, is infrequently taught in graduate medical education. No study has tested if clinical empathy can be taught effectively.

OBJECTIVE: To assess whether medicine residents can learn clinical empathy techniques from theater professors.

DESIGN: A controlled trial of a clinical empathy curriculum taught and assessed by 4 theater professors.

SETTING: Virginia Commonwealth University, Richmond, Virginia, a large urban university and health system.

PARTICIPANTS: Twenty Internal Medicine residents: 14 in the intervention group, 6 in the control group.

INTERVENTION: Six hours of classroom instruction and workshop time with professors of theater.

MEASUREMENTS: Scores derived from an instrument with 6 subscores designed to measure empathy in real-time patient encounters. Baseline comparisons were made using two-sample *T* tests. A mixed-effects analysis of variance model was applied to test for significance between the control and intervention groups.

RESULTS: The intervention group demonstrated significant improvement ($p \leq .011$) across all 6 subscores between pre-intervention and post-intervention observations. Compared to the control group, the intervention group had better posttest scores in 5 of 6 subscores ($p \leq .01$).

LIMITATIONS: The study was neither randomized nor blinded.

CONCLUSIONS: Collaborative efforts between the departments of theater and medicine are effective in teaching clinical empathy techniques.

KEY WORDS: doctor-patient relationships; medical education; communication skills.

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INTRODUCTION

Empathy is vital for physicians. The dictionary defines empathy as "the action of understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, and experience of another ... without having the feelings, thoughts, and experience fully communicated in an objectively explicit manner."¹ Famously, Francis Weld Peabody described the clinical value of empathy in medicine, noting, "The secret of the care of the patient is caring for the patient."² Yet, physicians must be more than empathetic. We must also convey our empathy to our patients. This skill of developing connectedness is crucial to a successful therapeutic relationship. We define this idea as clinical empathy.

Clinical empathy is the skill of recognizing a patient's emotional status and responding, in the moment, to the unique needs of the patient to promote better clinical outcomes. An empathy-conveying physician is more successful than one who is not. Patients have identified skills in understanding, listening, and honesty as the most important traits in their primary care physicians.³ In their modern review of the placebo effect, DiBlasi et al.⁴ concluded that a "warm, friendly, or reassuring manner" contributed greatly to the doctor-patient relationship.

Because of the importance of clinical empathy, curricula should include these skills. In 1994, the Accreditation Council for Graduate Medical Education identified "interpersonal and communication skills" as 1 of 6 core competencies.⁵ Clinical empathy is a major part of interpersonal and communication skills. Larson and Yao⁶ noted that clinical empathy requires hard work and training. However, educators have struggled to integrate specific curricula addressing this core competency. In a review of the literature on communication training in medical education, Aspegren underscored the paucity of research in this area and the heterogeneity of current educational approaches.⁷ Despite the undeniable importance of these skills to successful medical practice, no widespread or well-studied curricula exist to teach clinical empathy.

Part of the reason for the lack of clinical empathy curricula is that physician-educators have not been trained to teach these skills. Whereas many intellectually adroit clinicians develop expertise in these abilities through clinical practice, explicit training in these areas is minimal. Moreover, although these skills can be translated into a set of observable proficiencies such as verbal and nonverbal communication, respect, and relating to the listener, Medicine has not designed and measured programs about these topics. We sought a new method for teaching clinical empathy.

We hypothesized that clinical encounters are similar to the interactions of talented actors. During patient encounters, expert

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clinicians perceive empathy cues from patient and compose verbal and nonverbal responses that are tailor-made to what they observe and hear. Similarly, actors on stage must identify the different vocal tones, body language, and degree of emotion expressed by other actors. They then respond, in the moment, with a carefully measured reaction. This skill, similar to a skillful clinician's interaction with a patient, is vital to successful theater. Professors of theater dedicate much of their classroom time to teaching these observational skills. They seek to teach their learners to react uniquely in each performance with the appropriate vocalization, posture, and verbal and nonverbal expression. For assessment purposes, theater educators use instruments to measure the students' abilities to observe nonverbal cues, listen to the cadence and expression of others, and respond appropriately. As learners then become experts, they develop the subconscious ability, known as deep acting, to use these skills subconsciously. This ability has been compared to empathy expertise in physicians.⁶ In fact, 1 physician with theater expertise has remarked that his prior acting experience improved his clinical empathy skills.⁸

Theater as an educational modality is not a new idea. The Ariel Group uses theater-based techniques to train business leaders in leadership presence: "The ability to connect with the thoughts and feelings of others, in order to motivate and inspire them to a desired outcome."⁹ Although this mission statement parallels some of our objectives, this group has not applied these techniques in a medical setting. In the health care field, role-playing is commonly used in undergraduate medical education and in nursing to teach patient interaction. The most refined example of this technique is the objective structured clinical examination (OSCE) format, which has recently been added to United States Medical Licensing Exam (USMLE) certification. Most akin to our study is the work of The Compassion in Dying Federation. This group leads a Craft of Empathy course and seminar,¹⁰ which teaches empathy and communication using the play *Wit*¹¹ as a stimulus for discussion of empathy and palliative care. This program has not been rigorously studied. We know of no program that explicitly teaches clinical empathy skills. The purpose of this present study, therefore, was to determine whether professors from the department of theater could teach and assess clinical empathy to Internal Medicine residents.

METHODS

This study was conducted as a collaboration between the Departments of Internal Medicine and Theater at Virginia Commonwealth University, a public university of more than 25,000 students in Richmond, Virginia. The Department of Medicine has 130 residents and almost 200 faculty members. The Department of Theater has more than 20 faculty members and specializes in theater pedagogy, the field of theater education.

In February 2004, 20 residents were enrolled in the study. All of the residents who were participating in a month-long Ambulatory Care Teaching Block were placed in the intervention group ($n=14$). Six other residents, selected because they had ambulatory continuity clinic at the same time and location, comprised a control group. Participants were

instructed about the study processes and its goals and given the option to participate. All participants signed a consent form approved by the university IRB. The patients interviewed by the residents gave verbal consent to the observed clinical interactions, a format also approved by the university IRB.

The intervention consisted of instruction by 4 professors of the Department of Theater during four 90-minute classroom and workshop sessions. The initial session was an overview of the knowledge, skills, and attitudes important for clinical empathy, specifically the benefits of greater insight into patient behavior and the increase in patient trust that helps build successful therapeutic relationships. We introduced the concepts of active listening and clinical empathy. The second session focused on the skills needed for building empathetic relationships. These included listening for subtext, listening for values and strengths, making links to one's own experiences, and strategies for acknowledging the patient's feelings. Skills in physical expressiveness, body language, and vocal presence were taught. The third session reviewed the prior material, with special emphasis on the role of eye contact, breathing rhythms, and body positioning. The final session centered on time management and small-group leadership skills as well as a review of the prior sessions. The control group received no specific education in clinical empathy skills. No interventions were implemented to address contamination between groups.

All 20 participants were evaluated at least once before the intervention and at least once in the 4 months after the intervention. For participants who were evaluated more than once, their scores were averaged. The evaluation consisted of an observed primary care clinic visit between the participant and a patient. Although all observed visits occurred during scheduled ambulatory continuity clinic, we did not distinguish between new, follow-up, and urgent encounters. One of the 4 members of the Department of Theater performed the evaluation via a modified scoring tool commonly used within the Theater Department to assess student performance. This tool evaluated 33 parameters within 6 subscores: empathetic communication, relating to the listener, verbal communication, nonverbal communication, respect for dignity, and overall impression [Appendix]. Overall impression included a composite assessment of what we considered the 5 most important characteristics: warmth, presence, attentiveness, facial expressiveness, and physical expressiveness. Participants were scored from a low of 1 to a high of 10 for each parameter. Before statistical analysis, the scores for each participant were averaged within each subscore to get a mean subscore. These scores were then pooled by control or intervention group assignment.

Demographic comparisons between the 2 groups were done by chi-square analysis. Baseline comparisons between the 2 groups were made using independent 2-sample t tests. A mixed-effects analysis of variance model was used to test for the significance of important contrasts during comparison of the pre versus postintervention and intervention group versus control group subscores. A test of the group effect was based on a comparison of the means of the "post intervention" group versus the means of the "post control" group. A test of the intervention effect was based on a test comparing the "post intervention" and "pre intervention" group means. The model

Table 1. Pre- and Post-intervention Subscores* for Control and Intervention Groups with Effect Sizes

Subscore domain	Pre-intervention [†]		Post-intervention [‡]		
	Control group (n=6)	Intervention group (n=14)	Control group (n=6)	Intervention group (n=14)	Effect size (p value) [§]
Empathy	6.22 (1.00)	6.90 (0.42)	6.93 (0.42)	8.64 (0.28)	1.7 (.004)
Relating	6.00 (0.76)	6.92 (0.43)	7.14 (0.37)	8.72 (0.22)	1.8 (.01)
Nonverbal	7.11 (1.13)	7.28 (0.59)	7.39 (0.42)	8.86 (0.28)	1.4 (.01)
Verbal	6.59 (0.91)	6.88 (0.39)	7.07 (0.41)	8.47 (0.27)	1 (.058)
Respect	6.45 (0.86)	7.17 (0.44)	7.09 (0.51)	8.37 (0.32)	1.9 (.002)
Overall Impression	6.38 (1.01)	6.88 (0.40)	5.82 (0.60)	8.56 (0.37)	1.5 (.007)

*Participants were scored from a low of 1 to a high of 10 for each parameter in the study instrument.

[†]Mean scores (standard error of the mean)

[‡]Least square means for the ANCOVA analysis of the posttest scores adjusted for the pretest score (standard error)

[§]Adjusted post-intervention subscore comparison of intervention group versus control group

^{||} $p \leq .011$ for comparison of pre- and post-intervention subscores of the intervention group

allowed for within-subject correlated data and assumed independence across subjects. The posttest scores were then evaluated by an analysis of covariance (ANCOVA) model adjusting for the pretest scores. The test for differences in the posttest means was based on this ANCOVA model. In all cases, the interaction parameter was not significant and was removed from the model. We calculated effect sizes by dividing the difference in least square means adjusted for the pretest scores by the product of the largest standard error and \sqrt{n} . All analyses were conducted using SAS (v8.02).

RESULTS

The control group of 6 medical residents had a median age of 30.5 years, and half were male. Three of the participants identified themselves as white and 3 as Asian. In the intervention group of 14 residents, 29% were male. The median age of this group was 30, with 12 residents identifying themselves as white, 1 as African American, and 1 as Asian. Comparisons for all demographic data using chi-square testing were nonsignificant ($p > .05$ for all). Using our clinical empathy skill instrument, baseline comparisons (Table 1) among the 2 groups were similar before the intervention across all 6 subscores ($p > .3$).

After the curricular intervention, the intervention group showed significant improvement ($p \leq .011$) across all subscores from pre-intervention to post-intervention measurements (Table 1). After adjusting for pre-intervention scores, the post-intervention subscores for the intervention group were significantly better ($p \leq .01$) than those in the control group for empathetic communication, relating to the listener, nonverbal communication, respect for dignity, and overall impression. Verbal communication improved in the post-intervention group versus the control group but not to statistically significant degree ($p = .058$). Effect sizes ranged from 1 to 1.9 (Table 1).

DISCUSSION

Medicine is both an art and a science. Currently, evidence-based clinical decision making is the primary focus of graduate medical education. However, the art of medicine is also important. Fundamental to the art of medicine are skills in active listening, astute observation, and effective communica-

tion of empathy. We defined the skills as clinical empathy. These skills do not have well-defined curricula in current medical education.

To develop a new curriculum to teach clinical empathy, we needed educators skilled at the art of communication in the moment. Professors from the Department of Theater are experts in this area. We assembled a multidisciplinary team to design and test a curriculum of clinical empathy. We measured whether these professors could teach clinical empathy skills during 6 hours of classroom and workshop education time. We attempted to apply rigor by testing our intervention in a controlled study. Our study was small and neither blinded nor randomized. Our assessment tool, although adapted from a widely used grading tool in theater education, was not scientifically validated, and the interoperator reliability is unknown. Also, most participants were observed only once before and after the intervention, limiting reliability and generalizability. Our study also measured improvement by trained observers rather than by direct patient feedback. Clinical effects are uncertain, although our patients were receptive to the observed encounters. Despite these limitations, the intervention group of Internal Medicine residents had statistically significant improvement in their skills compared both to baseline and to the control group. In some observations, these benefits were apparent 4 months after the training sessions.

This study suggests that a collaborative approach between professors of Internal Medicine and theater can teach clinical empathy skills. Future randomized studies are needed to confirm and replicate our findings and to estimate the persistence of the measured advantages after the intervention. In addition, the clinical effects of this training should be measured. Most importantly, clinical empathy curricula should continue to be developed and each effort should be rigorously evaluated.

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