

# Teaching Medical Students to Communicate With Empathy and Clarity Using Improvisation

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## Abstract

### Problem

Medical educators widely accept that health care providers need strong communication skills. The authors sought to develop a course incorporating improvisation to teach health professions students communication skills and build empathy.

### Approach

Teaching health care professionals to communicate more effectively with patients, the public, and each other is a goal of the Alan Alda Center for Communicating Science at Stony Brook University. The authors designed an interprofessional elective for medical, nursing, and dental students that

differed in several respects from traditional communication training. The Communicating Science elective, which was offered by the Alda Center from 2012 to 2016, used verbal and nonverbal exercises, role-playing, and storytelling, including improvisation exercises, to teach students to communicate with empathy and clarity.

### Outcomes

In course evaluations completed by 76 students in 2012 and 2013, 100% said they would recommend the course to fellow students, saw the relevance of the course content to their careers, and desired more of the course content in their school's curriculum. As a result of

this positive feedback, from 2014 to 2016, 10 hours of instruction pairing empathy and communication training was embedded in the preclinical curriculum at the Stony Brook University School of Medicine.

### Next Steps

This course could be an effective model, and one that other institutions could employ, for improving communication skills and empathy in the next generation of health care professionals. Next steps include advocating for communication skills training to be embedded throughout the curriculum of a four-year medical school program.

### Problem

In a perfect world, health care professionals would be effective leaders who inspire confidence and communicate with their patients in ways that produce positive clinical outcomes. Currently, however, many providers fall far short of this ideal.<sup>1-3</sup> The Joint Commission reported that around 70% of adverse patient outcomes are rooted in poor communication between providers and patients or among health care providers themselves.<sup>4</sup> To address this issue, medical schools have begun to incorporate improvisation exercises into communication training.<sup>5,6</sup> In addition, the Association of American

Medical Colleges identified empathy as an essential learning objective for medical education because it can influence patient satisfaction, clinical outcomes, and professional satisfaction.<sup>7</sup> Not surprisingly, then, communication skills training in medical schools often includes a focus on empathy.<sup>8</sup> To this end, we set out to develop a communication skills training program for medical students that incorporated improvisation with the goal of improving empathy.

### Approach

#### About the Communicating Science elective

Teaching health care providers to communicate more effectively with their patients, the public, and each other is a goal of the Alan Alda Center for Communicating Science at Stony Brook University. The Alda Center was established in 2009 to address national concerns that scientists, engineers, and health care professionals need to improve their ability to communicate with the public. The Alda Center began offering courses for graduate students

in science, technology, engineering, and mathematics at Stony Brook University in 2011. Because of interest from other programs in related professions, an elective was developed by the Stony Brook University School of Medicine and School of Journalism in 2012. Led by two instructors at the Alda Center—the founding medical director and a physician with expertise in journalism (E.K.-L.) and an improvisation instructor with graduate training in theater arts (V.L.-G.)—the course offered intensive communication training for students in undergraduate medical education and graduate nursing programs. It was opened to students in dentistry programs in 2014.

From 2012 to 2016, the elective was offered as a stand-alone course; it was held twice in the first two years and once each year thereafter. It was a new addition to the curriculum teaching communication strategies and complemented the existing clinical skills course. Course objectives targeted students' ability to speak clearly and connect with any audience in a direct and responsive manner using communication techniques that incorporate cultural competency and health literacy. The

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Acad Med. 2018;93:440-443.

doi: 10.1097/ACM.0000000000002031

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Supplemental digital content for this article is available at <http://links.lww.com/ACADMED/A505>.

course employed a team approach to teaching communication skills, and course instructors and outside journalists, who were specifically trained to recognize and elicit strong communications, provided feedback to students.

The course consisted of six weekly three-hour sessions based in part on the work of Viola Spolin,<sup>9</sup> a Chicago-based theater educator. Alan Alda, actor, science advocate, and visiting professor at the Alan Alda Center for Communicating Science and the Stony Brook University School of Journalism, studied with Spolin and proposed that her approach might be adapted to help health care professionals become more authentic communicators. Incorporating Spolin’s work, the course included interactive lectures, discussions, exercises, role-playing, and on-camera interviews. Table 1 presents an overview of the content of each session.

Also guiding the course content was the Alda Method, which is based on two foundational components—Improvisation for Scientists and Distilling Your Message. The first component, Improvisation for Scientists, used improvisational theater games to help participants connect more directly, personally, and responsively with others. Improvisation activities taught participants to be dynamic listeners by

using nonverbal and verbal questioning. In this manner, students learned to explain complex concepts to listeners using jargon-free language and relatable analogies. Improvisation also emphasized empathetic listening, where individuals became attentive to the words that were spoken and the emotions they invoked. In addition, improvisation was used to complement students’ interactions with standardized patients (SPs) and to provide them with a framework for handling uncertainty. While interactions with SPs are based on planned, simulated scenarios, improvisation permitted “surfing uncertainty” within real-life, spontaneous situations.

The second component, Distilling Your Message, helped participants learn to speak clearly and conversationally at varying levels of complexity for diverse audiences. It introduced participants to the general principles of crafting clear, vivid, and concise conversational statements about what they do and why it matters. The focus was on interpreting technical material using nontechnical examples, analogies, and storytelling to illuminate unfamiliar concepts to any audience.

Both components required participants to shift their focus from themselves to the person or persons with whom they

are communicating. For medical and other health care professionals, the goal of communicating could be motivating patients to take their medication or helping them to understand treatment options, both of which could benefit from the techniques learned from these exercises.

**Improvisation techniques taught during the Communicating Science course**

**The “yes, and” rule.** To teach participants how to take part in and further verbal communication encounters, we taught the rule of “yes, and,” which is a key concept in improvisation. Using this strategy, one person metaphorically says “yes” to whatever the other suggests, “and” adds something new to advance the conversation. For example, Sally would hold her arms out and say, “James, take this fish and filet it for me.” With the “yes, and” rule, James would grab the invisible fish and reply, “You’re just in time. The guests are about to arrive!” The scene then has progressed from an imaginary fish to having a dinner party. If James didn’t follow the “yes, and” rule, he might say, “Sally, you’re not holding a fish. You need to have your head examined!” This would stall the progress of the scene and leave Sally feeling defensive or embarrassed.

What does “yes, and” have to do with communication in medicine? Everything.

**Table 1**  
**Session Topics and Content Overview for the Communicating Science Elective Course, Alan Alda Center for Communicating Science, Stony Brook University, 2012-2016**

Session number	Topic	Content overview
1	Improvisation for scientists	Students use improvisational theater techniques to learn to be more direct and dynamically responsive communicators. This course is not about acting; it’s about helping current and future scientists and health care professionals connect with their audiences.
2	Distilling your message	Students are introduced to the basic principles of clear communication as part of learning to speak clearly and vividly about science in ways a lay audience can understand and appreciate. Students are taught the skills of distilling their messages then practice these techniques in small group break-out sessions. They begin by crafting short, clear, engaging statements about their work and why it matters. The focus is teaching the students to communicate at different levels of complexity to different kinds of audiences using techniques that include storytelling.
3	Connecting with the community	Students explore the importance of community in outreach and research. They are introduced to communication techniques that incorporate cultural competency and health literacy concepts to engage and mobilize the community and key stakeholders on health-related issues. Role-playing with a community advocate illustrates the take-home points essential to cultivating these relationships.
4	On-camera interviews	In conjunction with the Clinical Skills Center, students tape on-camera interviews which enables them to practice the skills they learned in the previous sessions to communicate under the pressure of being interviewed. Trained journalists skilled in using improvisation and distilling techniques review the on-camera interviews with the students in small break-out sessions.
5	Engaging key audiences	Through role-playing, storytelling, and other exercises, students build on the skills they learned in previous sessions by practicing communicating with a diverse audience.
6	Roleplaying patient interactions	Students use the skills they learned and practiced in previous sessions bringing to bear these new techniques and becoming aware of the progress they have made. This session is focused on doctor-patient interactions, and it includes resources for students to continue working on their communication skills. Course evaluations are completed, and time is reserved for student feedback, with the goal of continuing to improve the course for future students. Student feedback is taken very seriously and has been incorporated into subsequent offerings of the course.

Imagine Sally is a parent who does not want her child to be vaccinated. Following the “yes, and” rule does not mean that the physician has to agree with Sally; it means she hears Sally’s position in an open way, accepts that it is important to Sally, and lets it affect her response. For example:

Yes, as a parent, you certainly want to do everything possible to keep your child safe. And, as a parent myself, I feel the same way. I can understand your concerns when there is so much confusion surrounding this. What my research has helped me understand is that there is no scientific evidence that vaccines increase diseases ... and as a mom and a doctor, I recommend that parents vaccinate their children.

Using “yes, and” advances the conversation in a positive direction.

**The Mirror exercise.** Although much of the communication between health care providers and patients is verbal, nonverbal communication also takes place, especially in the first minutes of an encounter. To teach participants how to respond to nonverbal communication, like facial expressions, tones of voice, and body language, we employed one of the most basic nonverbal improvisation exercises, called Mirror. In this exercise, two students stand silently facing each other. The designated leader starts to move, and the other student follows, as a mirrored reflection of the leader. The students switch roles several times. As the exercise progresses, the connection between the students becomes more focused and personal. Leaders are encouraged to focus on the needs of their follower and to become responsible for their movement. At the end, the class reflected on how quickly the connection was built and how mirroring translated abstract movement; they then applied these lessons to medical conversations.

## Outcomes

A total of 114 students across three health professions programs enrolled in the Communicating Science course from 2012 to 2016. All students who wanted to take the course were enrolled. Of the 76 students who participated in the first two years, 56 (74%) were from medicine, 8 (11%) were from nursing, and 12 (16%) were from dentistry. Of the 280 students at the medical school during this time, 56 (20%) participated in the course—9 (3%)

first-year students, 41 (15%) second-year students, and 6 (2%) third- and fourth-year students.

Course evaluations were collected from all 76 students in the first two years. Seventy-three (96%) gave the course the highest rating (five points on a one- to five-point scale). (See Supplemental Digital Appendix 1 at <http://links.lww.com/ACADMED/A505> for the course evaluation tool used.) All students indicated that they wanted more of the course content incorporated into their school’s curriculum. Students also indicated that the techniques they learned in the elective were relevant to them as future health care professionals and further enhanced what they learned from their objective structured clinical examinations (OCSEs). However, selection bias did exist as the course was an elective, so students had to opt to take it. And, while OCSEs were used in other courses to assess students’ communication skills, they were not used in this elective, nor were other assessments, making a direct comparison of students’ communication skills learned during this course and the OSCEs impossible.

Students also commented that they learned to better understand a patient’s perspective, explain health issues using nontechnical language, and listen more intently, all of which we expected as outcomes of the course. An unexpected outcome was that several students stated that the course helped them to learn medical material more easily. Said one first-year medical student, “... translating complex science via a system has helped me perform better in school because I can now translate the complex things we read into simple language to learn it better.” See Supplemental Digital Appendix 2 at <http://links.lww.com/ACADMED/A505> for additional student comments.

From a teaching perspective, we found it most effective to work in teams of two to teach the course—a physician collaborating with an improvisation instructor to impart real-world examples through discovery learning. Ideally, the physician instructors would develop the content of the sessions related to applying these techniques to medicine, and the improvisation instructors would lead the actual improvisation activities. This method of team teaching offered students a more hands-on, balanced approach to

learning how to apply and communicate medical knowledge. In working with time-limited, results-oriented medical and health professions graduate students, the need to build explicit applications of this knowledge and skill set into the exercises was crucial. Otherwise, the students emerged energized and inspired but at a loss about what to do with their inspiration.

The content of the course was also ideal for interprofessional education. Students from multiple health professions learning to communicate effectively with one another may help improve their collaborative practice and their communication in clinical settings, which could lead to better health care for patients.

We introduced the Alda Method with a small sample of students to gauge its impact and their satisfaction. The enthusiasm of our first students was contagious, and they convinced skeptical students and faculty of the importance of communication skills to their education and careers. As a result of positive student feedback, from 2014 to 2016, 10 hours of instruction pairing empathy and communication training was integrated into the preclinical curriculum in the School of Medicine, with the elective available to students who wanted even more training.

The elective and the instruction in the preclinical curriculum are not currently being offered in their original form in the School of Medicine. The course’s physician instructor (E.K.-L.) is working to embed more expansive communication training throughout the four-year curriculum of a new medical school (applicant for Liaison Committee on Medical Education accreditation) which has, as a goal, training the next generation of empathetic scholars.

## Next Steps

Moving forward, we strive to help educators weave aspects of communication training throughout the curriculum for each course. An inherent challenge lies with securing coveted time to teach communication skills effectively. Timing is everything. This type of training could provide the greatest impact when it is strategically placed in courses where students can continually practice what they have learned. Communication

skills must be taught throughout the educational program, into residency, and beyond for students to fully develop this skill set.

We also learned that students were more open to the improvisation techniques and this type of curriculum when the sessions were cotaught by physicians trained in communication. Finding appropriate faculty then presents a challenge, as we learned. Many schools may not have the resources to hire an improvisation instructor to train medical faculty or the institutional buy-in to supplement their time. It also may be difficult to identify physicians who are effective communicators and willing to be trained in this methodology. Another essential component of this type of training is the development of evaluation tools to better measure the impact of the communication skills that students develop.

Next steps include seamlessly embedding this type of training into all course work and encounters with all audiences across a four-year program; training all faculty to be able to role model, teach, and assess these behaviors; and developing the relevant assessment and evaluation tools. We hope to share these strategies and tools with other medical schools in the hopes of promoting best practices and increasing the practical application of communication skills training in medical education.

Our approach deserves further study and comparison with other methods for teaching communication skills as an essential competency for all clinicians.

The need is great for health professions schools to prepare their students to become providers who are skilled at communicating with their patients, colleagues, and the community with empathy and clarity. Our goal is to address the lessons we learned from the implementation of this elective so that it can be emulated at other institutions.

*Funding/Support:* None reported.

*Other disclosures:* None reported.

*Ethical approval:* Reported as not applicable.

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