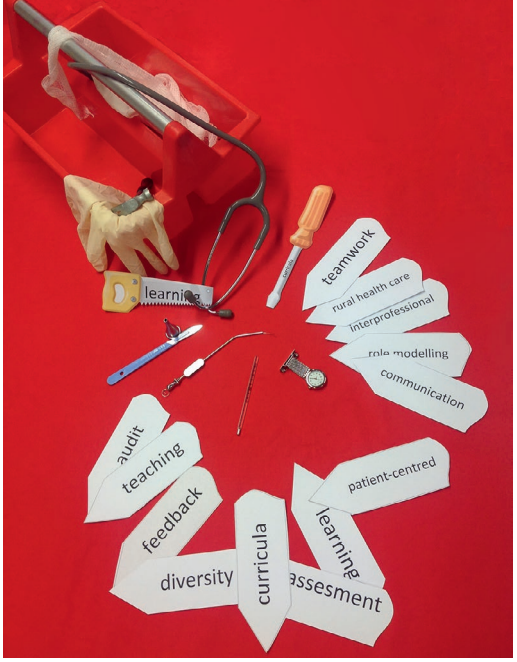
Clinical Teacher's Toolbox



Teaching public speaking to medical students

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Editor's note: Communication skills training is now an established component of health professional curricula. This Toolbox focuses on a specific and unusual area of communication for medical students: public speaking. It includes course content and giving feedback, and is based on the authors' experience of running such a course. The three components of public speaking covered in the article are: delivery, improvisation, and speaking frameworks. The authors promote public speaking as a way to help students enhance skills particularly in relation to information delivery. The 'curse of knowledge' is described – how a medical doctor's depth of knowledge may inhibit effective communication with patients. The SEED (statement, evidence, emotion and demonstration) framework is recommended as a structured method of communicating medical information. The Toolbox also includes suggestions for introducing this new communication initiative to an institution and gives practical examples of course work and exercises

INTRODUCTION

The development of strong public speaking skills is encouraged across many fields and is becoming an increasing area of focus in scientific training.[1] To our knowledge, there is scant literature on training medical students in aspects of public speaking, which can be valuable for their future roles as healers, educators and leaders.[2] This toolbox article describes teaching three components of public speaking – delivery, improvisation and speaking frameworks – to medical students in order to improve their communication skills, particularly around information delivery. Below, we provide a rationale for these components, describe the course content and feedback structure, and share insights derived from two years (2017 and 2018) of running such a course at our institution. We also provide an overview of what to consider in implementing a similar course at other institutions.

THE CURSE OF KNOWLEDGE AND ITS EFFECT ON COMMUNICATION

Physicians mainly communicate in small settings with patients, families and other health care professionals.[2] Additionally,

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academic physicians communicate with trainees in clinical and classroom settings, in scientific meetings and in courtrooms as expert witnesses.[2] In these contexts, a physician's deep knowledge of medicine may paradoxically limit his or her ability to communicate effectively with others, a phenomenon known as the 'curse of knowledge'.[2–4] This is especially problematic when physicians proceed with asking diagnostically focused questions and conveying medical knowledge prior to sufficiently exploring a patient's knowledge and beliefs about his or her own illness, health and cultural beliefs.[5] The curse of knowledge can influence physicians to suppress patients' and families' communication and information needs, thus reducing the appropriateness, completeness and effectiveness of the medical explanations that they provide.[2,5,6] This results not only in patient dissatisfaction, but also in poorer health outcomes.[2,6]

Although communication is a core clinical competency in medical school, communication education primarily focuses on information gathering, relationship building skills and, more recently, cultural competency, but has limited focus on clear information delivery.[2,4,6] Approximately one-third of physician communication with patients consists of providing information about medical conditions and therapeutic regimens, however.[6] Resident physicians have been shown to have high confidence in information-gathering and relationship-building techniques, but lower confidence in the information-delivery skills necessary for proper shared decision making.[6] Given this, we believe that medical school communication curricula can address the 'curse of knowledge' by using public speaking techniques designed to engage the attention of listeners and share information effectively.[4]

COMPONENTS OF PUBLIC SPEAKING TRAINING THAT ARE VALUABLE TO MEDICINE

Improvisational skills

Physicians often deal with unpredictable and challenging social dynamics. Improvisation teaches one to think creatively and maintain composure in challenging situations.[7] Several medical schools have begun to adopt improvisational theatre techniques to teach patient communication and case presentation skills, with students reflecting that learning to perform improv improves their listening and observational skills, as well as overall communication with patients.[7,8] We used improv exercises to improve active listening skills and prime creativity, so that students could be more flexible in stressful and ambiguous situations. Details of some of these in-class exercises are included in Table 1. The development of improvisational and delivery skills provides students with the foundation to effectively use speaking frameworks.

Delivery

In public speaking, delivery consists of verbal and non-verbal components – eye contact, volume, hand gestures and anxiety management – used to present content.[1] Delivery plays a large role in how audiences respond to a speaker's message

Table 1. Example exercises for the improvisation, delivery and framework of the course (for a full description of the exercises conducted in the course, see Table S1)

Component	Sample exercise descriptions
Improvisation	• Spontaneity: name three objects for your partner to shout out quickly (e.g. 'Three car brands!'), then switch roles, going back and forth
	• Assertiveness: form a circle with the group and have one person step into the centre and begin speaking spontaneously. The people on the outside should find opportunities to interrupt, gently push the speaker out of the centre, and continue the thread of discussion
Delivery	• Pausing: grossly exaggerate the length of pauses in a 1-minute speech
	• Filler words: speak for 1 minute with as many 'umms' as possible; then speak for 1 minute, but replace the 'umms' with pauses
	• Volume: Start a 1-minute speech at a whisper and increase the volume until the last word is near shouting
Frameworks	• Simple structure: Tell a 1-minute story about your weekend, using the framework 'before, during, after'
	• Engaging structure: in partners, have partner A tell a story while partner B directs by saying 'Advance' to move the plot forward or 'Expand' to dive into the detail of the story
	• Making a point: deliver a 1-minute speech beginning with a one-sentence introduction, tell a brief story, and then frame the story with the conclusion that the audience should take away

and serves as the foundation of our curriculum. Examples of in-class activities to assist students in practising effective delivery are provided in Table 1. Most people have prior-developed delivery habits, and our course was designed to provide a low-stakes environment for people to experiment with aspects of their professional and interpersonal demeanour. In the evaluation of the course, students cited delivery – specifically, anxiety management and body language techniques – among their most important takeaways.

Frameworks

Providing a framework for patients when receiving information allows them to organise information in their memory for easier processing and recall.[9] Studies have shown that patients retain significantly more information when it is structured as a summary, followed by high-level and then low-level information, compared with the format of traditional clinical presentation, where information is grouped by content without explicit structure.[4,9] A goal of the course was for students to adopt a rhetorical framework that uses four components (statement, evidence, emotion and demonstration, SEED) to appeal to a recipient's logic, emotion and imagination to improve comprehension and recall (Table 2).[10] The SEED framework was chosen as the foundational structure for communicating medical information as it is designed to improve the retention of complex information, and thus may serve as a tool to help patients make informed decisions.[4] The SEED framework is based on concepts from *Made to Stick*, which postulates that for information to resonate, it must be presented in a way that is 'simple, unexpected, concrete, credible, emotional, and involves stories'.[11]

For instance, after explaining a treatment (statement) and providing data on its efficacy (evidence), a physician can explain how the treatment can impact the patient's life with stories of how it has affected other patients (emotion), and tie everything together by evoking the patient's imagination using a visual analogy (demonstration) (Table 2). Although physicians may use components of the SEED framework regularly in communicating information to patients, the systematic application of all four components of SEED ensures the saliency of the information for patients differing in health literacy and ability to draw conclusions about one's own condition based on available evidence.[4] For instance, the evidence component may offer useful information for patients who are able to process and apply data to their own situation, whereas the emotion and demonstration components may resonate more with patients who process information better visually or emotionally.[10,12]

As medical students develop their own communication styles, the use of speaking frameworks trains them to deliver information in a systematic manner, similarly to how they are taught to gather information systematically when eliciting patient histories.[2] Table 1 provides details of some in-class activities that enabled the students in our course to practise using the SEED framework.

Feedback and reflection

Receiving and integrating feedback is central to the development of an effective communication style.[1] The physician leadership training programmes that are most

Improvisation teaches one to think creatively and maintain composure in challenging situations

Table 2. The SEED (statement, evidence, emotion and demonstration) framework uses four components to appeal to a recipient's logic, emotion, and imagination to improve comprehension and recall[4,15]

Component		Exercise descriptions
Statement	Claim or argument	'A new drug, called a checkpoint inhibitor, could work well for your metastatic melanoma'
Evidence	Facts and statistics that supports the claim	'These drugs have dramatically improved survival in melanoma. Before these drugs came out, only 10% of people survived for 5 years after diagnosis. Now, with these drugs, that number is almost four times higher'
Emotion	Appeal to emotion through stories or personal impact	'Now, these drugs don't work for everyone, but when they do, the results can be amazing. I have several patients whose cancers just melted away after they started taking this medication. They have been able to go back to their normal lives and some of them have remained stable, even after discontinuing the medication'
Demonstration	Evocation of a listener's imagination through metaphor, analogy or visualisation	'Unlike chemotherapies, which directly kill cancer cells, checkpoint inhibitors boost your body's own cancer fighting system. Over time, tumours learn how to put brakes on this system so that they can grow. What these checkpoint inhibitors do is cut those brakes so that your body can fight the cancer better'

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successful in generating improved organisational outcomes use feedback modules to develop self-awareness.[13] In our course, reconciling feedback with self-reflection allowed medical students to understand how they came across to others. We developed our feedback structure based on a method that minimises learners' defensiveness (Figure 1).[14] Following each speaking exercise, the facilitator would begin the feedback process by eliciting self-reflection from the speaker. Students often noted, with surprise, how effectively they were able to improvise content on the spot and how effective frameworks were for structuring content. The facilitator would then have the speaker elicit feedback from others, focusing the feedback on the concepts covered in that week's lesson. It was the facilitator's role to maintain a balance of positive and constructive feedback.

The final speech exercise of each lesson and the feedback were video recorded so that students could review the video and self-reflect as a homework assignment. Students stated that this integration of feedback and reflection improved their delivery by helping them to become aware of their tone, body language, and distracting elements in their speech and body movements.

STARTING A NEW COMMUNICATIONS INITIATIVE

Establish goals and curriculum

We suggest that the skills taught in this course are applicable across all levels of medical education and that the content of this course can be tailored to meet the needs of the implementing institution. The starting point for developing a new communication initiative will be a champion in the institution who can coordinate with students, faculty members, and administrators to gauge interest and establish course goals. As most universities offer at least one course in professional development, with a strong emphasis on scientific presentation skills, collaboration with the instructor from that course may be a feasible approach for tailoring content and training facilitators. The full list of exercises from our course is included in Table S1. We will make the course materials – including a full curriculum, a detailed explanation of the exercises and class readings – available to any interested institution.

Ideally, facilitators for this course should have some background in public speaking, improvisation or workshop facilitation; however, the exercises are straightforward to conduct and the most important aspects of leading others through these exercises are a high level of enthusiasm and good time-management skills. No matter the background, we recommend that facilitators video record themselves facilitating class exercises so that they may review and perfect their delivery of the material. We developed our initiative as a near-peer course so that participants can serve as course facilitators the following year, providing a leadership and teaching opportunity as well as a method of sustainability for the course. A faculty sponsor of the course also helps ensure sustainability.

Implementation

We recommend six weekly 90-minute sessions in the format shown in Figure 2 to allow students to integrate feedback within each session and across sessions. Similar to the flipped-classroom model, attendees should receive background information to read prior to each class in order to allow maximal class time for the interactive exercises and feedback. In our course, each session began with improvisational exercises, followed by a brief discussion about communication concepts from pre-class readings. Then, in dyads, students practised the exercises that incorporated the session's concepts, video recording each other on their phones, reviewing the video and providing feedback to one another. Working in dyads first allowed the students to become comfortable with the techniques before speaking before the whole class. The last exercise of each session consisted of students delivering brief impromptu speeches to the class

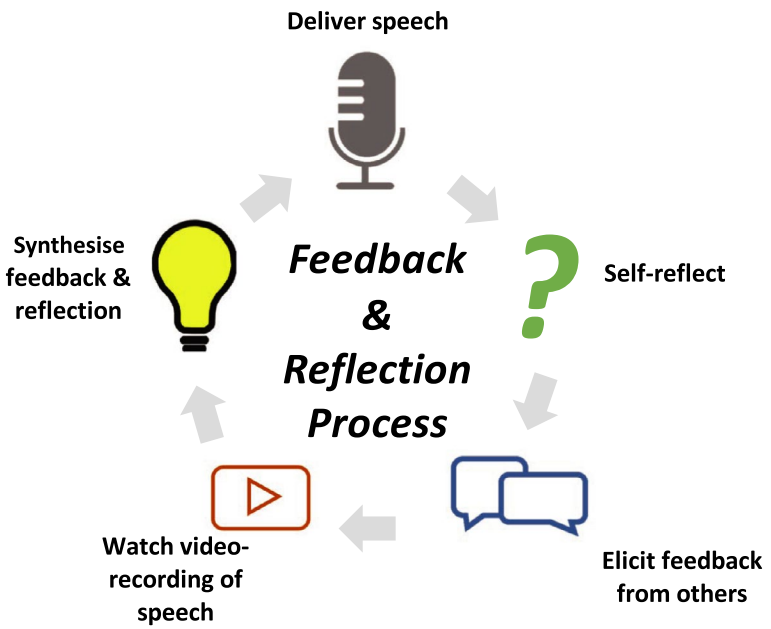

Figure 1. The feedback structure of the course was designed to improve students' self-awareness through the reconciliation of external feedback with self-reflection.

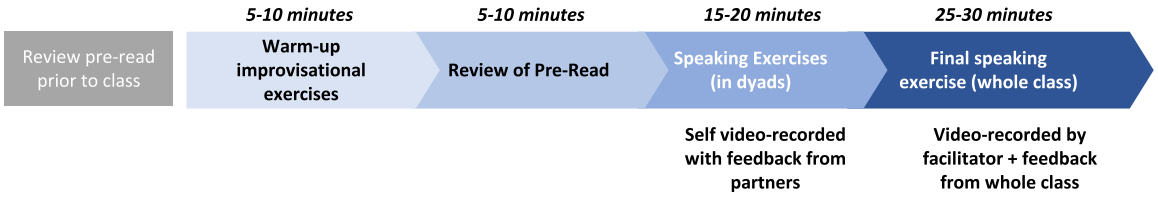

Figure 2. In each session, improvisational exercises allow participants to warm up. Reviewing concepts focuses the subsequent exercises and practising in dyads gives students an opportunity to practise with new concepts before speaking in front of the whole class. Video recording allows students to reconcile feedback with their own evaluation for homework.

on a randomly assigned topic, showcasing the concepts and techniques covered in the session, and again followed by feedback from the whole class. These final speeches were recorded by the facilitator and posted online for post-class reflection. Although the overall class size could be large, we recommend assigning one facilitator to a group of between six and eight students to provide for ample guidance and the completion of exercises in a timely manner. Having between six and eight students per group also allows for a diversity of opinion in feedback and a mix of personalities, which makes the exercises more enjoyable. At our institution, we enrolled pre-clerkship medical students, who were encouraged to apply the lessons from the course to their concurrent coursework in patient interviewing as well as towards their future communication on the wards.

During the course, facilitators should elicit feedback from students following the initial sessions, both in person and via an anonymous online survey, in order to tailor the course content to the group's needs. At the conclusion of the course, we recommend conducting a retrospective self-assessment of changes in communication skills as well as an independent evaluation of communication skills based on video recordings.

Partial implementation

The course content can also be delivered as single or multi-part workshops, depending on the needs of the institution. In providing the course through single workshops, we recommend following the same individual session structure described above (i.e. begin with improvisational activity, then delivery and framework exercises, with video recording and feedback for both) because improvisation and delivery skills serve as foundations for the effective use of frameworks (Figure 2). It may also be valuable to incorporate the feedback components of this course into existing communication training. For instance, the addition of video recording and the feedback structure with subsequent reflection can easily be added to existing role-playing exercises in clinical skills training or for presentations given in a journal club.

CONCLUSION

This design of a public speaking course extends the improvisational techniques that several medical schools have implemented and addresses the information delivery component that is missing from standard medical school communication training. As a supplement to proven techniques, teaching public speaking skills can improve the information delivery aspects of medical communication training to ultimately improve patient understanding and shared decision making.[12] We believe that the skills taught in this course can be easily implemented into existing curricula and offer great value for medical student communication training in hospital settings and beyond.

The SEED framework was chosen as the foundational structure for communicating medical information as it is designed to improve the retention of complex information

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Table S1: Full descriptions of the improvisation, delivery and framework conducted in the course.

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