
DEVELOPMENTS

Personalized Remedial Intensive Training of One Medical Student in Communication and Interview Skills

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Background: Medical students found to be deficient in communication and interview skills pose a difficult remediation challenge. There is no standard way to address such deficiencies. The authors describe the development and implementation of an intensive remedial curriculum.

Description: A 2nd-year student found deficient in communication skills was held back for a year and paired with a clinical preceptor for intensive skills training, including a weekly precepted clinic, structured readings, standardized patient (SP) exercises, communications workshops, and end-of-year standardized clinical evaluations.

Evaluation: The student's self-assessment and the preceptor's assessments of communication skill gradually improved over the year. The student improved through a progression of SP exercises focusing on specific communication skills. The student passed a final evaluation exercise with an excellent rating from the SP and the preceptor.

Conclusions: This multistrategy approach to improve communication skills can be applied to other students and in other institutions. Based on the Bayer Institute communication workshops and integrated coaching techniques, the material forms a framework to help deficient students to become proficient in communication and interviewing skills.

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C.S. was a student at the end of his 2nd year of medical school. (The pronouns *he* and *him* are arbitrary designations.) He adequately passed his basic science coursework but struggled during his longitudinal precepted continuity clinic and end-of-year clinical practice exams. In fact, his preceptors for both his 1st and 2nd years harbored serious doubts about C.S.'s ability to engage and communicate with patients. This was confirmed by his poor performance on standardized patient (SP) clinical evaluations at the end of the 2nd year. The school's academic promotions committee was faced with a difficult choice: They could promote this student

on the basis of his passing grades in his basic science coursework, hoping that continued exposure to patients in the 3rd and 4th clinical years would solve the problem, or they could hold him a back a year for remedial work in communication and interviewing. The committee knew of no remedial communications program for preclinical students to address the communications deficit of this 2nd-year student; however, they asked the faculty involved in the first 2 years of the clinical curriculum to devise and implement a strategy. Thus, C.S. was held back to repeat his 2nd year and undergo an intensive remedial communications curriculum.

Introduction

Communication and interviewing skills are often neglected in the teaching curriculum and yet are of critical importance. Medical schools have frequently promoted students who have passed the basic science curriculum, United States Medical Licensing Exam (USMLE) Step 1, or both, without adequately evaluating these fundamental clinical skills and behaviors.¹ A typical clinician will conduct more than 100,000 interviews during his or her career.² Effective physician–patient communication has been shown to improve patient satisfaction and patient health outcomes.³

Many medical schools are adding early clinical experiences to their curricula to expose students to patients and begin earlier the process of communication, physical examination, and problem-solving skill development. Clinical experiences for students in the 1st and 2nd years also allow evaluators to identify those with potential problems much earlier. The problems identified most often are communication skills, clinical problem-solving capacity, and professional behavior. Early identification of specific problems may improve the long-term success of the student, if individualized remedial programs are developed to address these problems.⁴

Generally, students who have difficulty with physical examination skills or diagnostic reasoning have well-established methods for remedial learning.^{5,6} In contrast, students who have difficulty with communication skills have had no such recourse. It is presumptuous to assume that merely exposing students to more patients leads automatically to improved communication skills. Often, students are left to develop their own techniques of interviewing, which commonly lead to rapid-fire yes–no interrogation and the belief that patients are not forthcoming with information about their symptoms.

A further challenge is that teaching communication skills to practicing clinicians is fraught with difficulty. Short-term interventions with residents and faculty have shown no change in patient satisfaction with clinicians, although some clinicians note increased comfort dealing with challenging patients.^{7–9} One-month-long intensive faculty remediation programs have shown inconsistent results.¹⁰

On the other hand, a Canadian family medicine program taught specific interview skills to residents with a poor command of English and found an improvement in negotiation and empathy over a 6-week period.¹¹ Also, an Australian hospital study found that students with special training in communications during a medical clerkship were diagnostically more efficient than controls at interviewing patients.¹² However, it is not known whether this training is applicable to students who are particularly deficient in communication skills or whether this effect persists over time.

Hence, there are few methods to teach communication and none for remediation of these skills. Published short-term interventions have shown inconsistent results. On the basis of this, we designed a year-long intensive remedial curriculum in communication skills for C.S.

Description

The Student

A 2nd-year medical student was identified as deficient in communication skills as noted by clinical preceptors in both Years 1 and 2 of the primary-care curriculum and in the end-of-year clinical practice exam. The student also received failing grades in communication skills from SPs and faculty in Years 1 and 2 of the curriculum. In addition, course leaders noted several “red flags” during small-group interactive learning sessions with the student in which he demonstrated an impaired capacity to solve clinical problems because of poor data-gathering skills. The course director concurred after videotape review of the student’s interaction with the SPs. Some specific concerns included:

- Lack of opening skills: poor eye contact, not introducing self, not making sure patient was comfortable, no introductory handshake, overly quiet speech.
- Lack of engagement skills: no open-ended questions, rapid-fire yes–no questions, looking at the chart more than at the patient, no bridging statements, overuse of medical terminology.
- Lack of empathy skills: poor nonverbal communication (arm crossing, standing instead of sitting, poor eye contact), no acknowledgment of patient’s discomfort.
- Lack of education and enlistment: not even attempted during the interview.
- Closing was abrupt: “OK, I’m done now.”

The student’s self-assessment at that time was brief. “I didn’t do a good job in there.” However, he was unable to come up with specific examples of what he was and was not doing.

Structured Curriculum

A primary-care physician and full-time faculty member, trained as a Bayer Institute for Healthcare Communication facilitator, was designated as coordinator of the year-long intervention. The student spent a half day per week in a precepted clinic with this faculty member. The student had monthly meetings with the preceptor to perform a self-assessment and give and receive feedback on year-to-date progress, using a format created by the preceptor (see Figure 1). The preceptor kept a journal documenting the student’s progress throughout the year.

Learner: _____ **Preceptor:** _____

Date: _____ Session type (circle one): Preceptors clinic Standardized patient

Learner's specific goals for this session:

Highlights of session (comments from learner, preceptor and patient):

Continue to do more _____ Consider changing _____

Figure 1. Preceptor session feedback form.

The primary-care curriculum director met quarterly with the primary preceptor to assess the student's progress. The student also repeated elements of the 1st- and 2nd-year curricula that specifically focused on the clinical interview by means of small-group exercises.

The student participated in three Bayer Institute Workshops: the Clinician–Patient Communication (CPC) Workshop to Enhance Health Outcomes, The Difficult Clinician–Patient Relationship (DCPR) workshop, and the Choices and Changes (CC) workshop.^{2,13,14}

The Bayer Institute is a nonprofit organization dedicated to improving clinician–patient communication, based in West Haven, Connecticut.* Over the last 10 years the institute has developed a series of educational workshops for the practicing clinician with this focus. More than 400 clinicians have taken the faculty development course and are now teaching these workshops worldwide. The University of Colorado School of Medicine has been pioneering the use of these workshops across the first 3 years of medical school to educate medical students in the art and skills of interviewing. The Bayer Institute material has been described elsewhere.^{2,13–18}

The first-generation workshop (CPC) focuses on four areas of communication skills: engagement, empathy, education, and enlistment. *Engagement* includes agreeing on topics of discussion, using reflective listening skills, agreeing on an agenda, and negotiating the scope of discussion. *Empathy* is operationally defined as helping a patient feel seen, heard, and understood; using the skills of reflecting thoughts, feelings, and ideas; and paying attention to nonverbal cues. *Education* is defined as helping a patient understand more about health and disease and includes skills such as

discovering the patient's theory of causation, simplifying directions, and remembering to write down critical instructions. *Enlistment* is defined as a patient and clinician agreeing to work together to improve health, using skills such as asking patients about barriers to success and working to overcome them in a partnership. Overall, there are more than 30 specific skills and behaviors described in this framework.^{2,19}

The second- and third-generation workshops, DCPR²⁰ and CC,²¹ encompass advanced topics in communicating with challenging patients. The materials for these three workshops formed the basis of the discussion and coaching sessions held between the preceptor and the student during the year.

Throughout the year, the student completed SP interviews on videotape. The primary preceptor observed each interview live. After a self-assessment by the student, the preceptor and SP gave immediate feedback at the end of the interview. A goal-setting and coaching framework was used to help the student discover his problems and develop new skills. Parts of the interview that needed more attention were re-enacted. The inter-

Table 1. Preceptor Evaluation of Student's Interviewing Skills

Evaluation Session	Student Performance of Each Skill			
	E1	E2	E3	E4
Original SP (second year exam), July	1	1	1	1
SP1 (alcoholic gastritis), September	3	3	3	2
SP2 (depression), November	4	4	3	3
Clinic patient 1, January	4	4	3	2
Clinic patient 2, March	4	4	3	3
SP3 (marijuana and asthma), May	5	5	4	4

Note: Ratings were made on the following scale: 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent. E1= engagement skills; E2 = empathy skills; E3 = education skills; E4 = enlistment skills; SP = standardized patient.

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view with the SP was done in 20–30 min, and the feedback sessions took about 90 min using videotape review. The preceptor rated the student's performance on a Likert-type scale (see Table 1). Written suggestions were given to the student at the end of each exercise, formulated in a two-column format: "Continue to do more:" and "Consider changing:" to allow for independent reflection after the exercise (see Figure 1). At the end of the year a final clinical practice examination and objective structured clinical examination were performed. That examination was administered to all end-of-2nd-year students.

The student was strongly encouraged to seek psychiatric consultation in a private setting to explore potential issues related to working with patients. The faculty wanted to make sure that any personal issues, such as cultural differences, a personality disorder, or a psychiatric illness, were not detracting from his ability to succeed with patients. The Colorado Physician Health Program played an intermediary role in discovering, as a disinterested third party, whether improvement was demonstrated in therapy. Aside from noting no major psychiatric issues potentially affecting the student's ability to practice medicine, the Colorado Physician Health Program was not able to give further insight on the student's progress.

Timeline of Interventions and Results

The year began in August with an initial goal-setting meeting in the preceptor's office. During an hour-long session the student and preceptor discussed the student's perception of his current situation, his view of the coming year, and set some common goals and performance expectations. On beginning the personalized intervention, the student had difficulty engaging the preceptor and would frequently be absent or late. Given clear guidelines, the student improved on these behaviors. When asked to perform a self-evaluation at the beginning of the year, the student noted a general need for improvement but had no specific ideas on how to do better.

For the first two sessions held during August, the student only observed the preceptor's interview while noting up to 30 specific observed communication skills on a checklist derived from the Calgary–Cambridge Observation Guide 1.²² The student and preceptor dedicated at least a half hour after each clinic session to debriefing. They would discuss the high and low points of each interview and how they might have done things differently.

Before every half-day clinic session, the student and preceptor jointly set learning goals for the session based on specific techniques from the Calgary Observation Guide or the Bayer Institute communication skills. After every session, the student and preceptor debriefed each other, and the student completed a self-

assessment of that session. The preceptor gave his feedback and documented progress. The student also completed a set of readings each month in communications textbooks and from a selection of articles of clinical research in communications.^{2,13,23–25}

In September, the student began the interview with the preceptor present and was instructed to ask only open-ended questions. At other times, the student practiced specific skills with patients, such as reflective listening, nonverbal pacing, and summarization. The student was concerned that he might lose touch with pathophysiology while focused primarily on communication. It was decided that he would write a standard history and physical with the usual assessment and plan, but then he would also write a first-person account of the patient's illness, to practice seeing the world through the patient's eyes. The student noted that this was a valuable exercise in empathy and seeing the encounter from the patient's perspective. Both writeups were reviewed with the preceptor at the next session.

At the end of September the student interviewed the first of three SPs during the year, a case of an alcoholic person with gastritis. Also in September the student attended the first half-day Bayer CPC workshop.

By October the student had completed as much of an entire interview as possible. These early student interviews were all done in the presence of the preceptor. By this time, the student was regularly able to see specific deficiencies in communication style and, with coaching, was able to identify specific skills (such as reflective listening) that could improve engagement and empathy with patients. Some of the student's self-observations included "I could have used a reflective statement there," "I could have got her a tissue when she started crying," "I should have asked more about her son's illness that was affecting her so much," and "I think I got into an argument about alcohol at the end."

In November the student conducted his second SP interview (a depressed person who was not talkative) with similar debriefing and continued his weekly clinic sessions.

By December the student was allowed to perform interviews independently and report findings to the preceptor. However, at least one patient each session was interviewed with the preceptor present. Patients were informally surveyed after being interviewed as to their comfort with the student's interview style. There were mixed reviews. Some patients still had difficulty "connecting" with the student; others found no difficulty. This feedback was shared with the student. The usual half-hour debriefing sessions occurred after each clinic session, with the student taking on more responsibility for self-critique.

In January, after conducting an independent patient interview and after presenting the patient to the preceptor outside the exam room, the student re-entered the exam room with the preceptor and initiated a discus-

sion on education and enlistment goals with the patient. During the remainder of the year he worked on advanced communication techniques in all areas of the interview: opening, engagement, empathy, education, enlistment, and closing. In lieu of SP interviews in January and March, a clinic patient was selected by the preceptor to serve as the evaluative session participant for the student in those months.

In March the student attended the second half-day DCPR Bayer workshop. Clinic sessions subsequently focused on techniques and skills learned during this workshop.

In May the student completed his third SP session (an argumentative teenager with shortness of breath and a hidden agenda of marijuana use), used as a final examination and final feedback tool. The student and preceptor had a final feedback session at the end of May, detailing their common perceptions of what was achieved during the year and reinforcing the key behaviors the preceptor and student saw as important to success in the 3rd year. The student noted that the main benefit of the year was not only a greater comfort in talking with patients but also better communication with peers and friends in social situations. In fact, at one point the student noted that communication with a personal partner had specifically improved because of an increased awareness of specific communication techniques learned during clinic sessions.

The student and the primary preceptor jointly constructed a working plan for key communication skills for the student's 3rd year. This included continued emphasis on "speaking up"; self-introduction in an unhurried, clear manner; being "curious" about the patient; practicing reflective listening; and being open to difficult emotions and asking "what else?" to obtain all the chief complaints.

A second faculty member, also a Bayer trained facilitator, served as an additional continuity preceptor. After the first 6 months, the student spent an additional half day in the office with this preceptor. There was consistent communication between the two faculty members about the student's progress in communication, based on the communication skills from the Bayer curriculum (engagement, empathy, education, and enlistment). The second faculty member became the student's continuity preceptor when the student progressed to the 3rd year, serving as a "lifeline" and continued re-enforcement of communication skills.

Follow-Up to Intervention

The student, of his own initiative, wrote a 12-page manuscript to introduce medical student colleagues to the techniques of interviewing. Specific quotes from that manuscript served as evidence that he was able to self-reflect about his communication with patients in ways he could not prior to this curriculum.

"When difficult topics arise, face them right then and there. I used to be afraid of my patient shutting me off angrily. Nevertheless, I finally understood that they wouldn't have broached the topic if they weren't ready to deal with it." Angry patients were a great fear of this student. He stopped trying to bypass strong emotion and instead listened attentively, identified the emotion, and reflected the patient's feelings carefully. He began to realize that this could be therapeutic.

The student also wrote, "You should always be trying to learn from your patient instead of worrying about your lack of knowledge." This student, like many, was particularly concerned about appearing "dumb" in front of the patient. He was able to turn that anxiety and lack of knowledge into an opportunity to learn from his patients.

He also found that "in general[,] open-ended questions are better than the closed-ended variety, which can be answered by one word. They are called closed-ended since they act kind of like a blind end." He realized over time that the temptation to use closed-ended questions to compile a list of symptoms ended up with an incomplete, unsatisfactory picture of the patient's concerns.

Finally, "When the patient is getting very emotional[,] you can do various things but remember that doing nothing is also an option."²⁶ Patients with strong emotions made this student very uncomfortable. He learned a number of specific skills, including sitting quietly and showing nonverbal empathy, which increased his comfort with these challenging situations.

The student proceeded into the 3rd year. The director recently received word that the student's performance on an SP exercise in the family medicine clerkship resulted in a very high score from the evaluators and the SP, indicating that these learned skills were retained after 6 months of clinical rotations.

Development and Training Costs

This intensive curriculum required the time of an intervention preceptor and a continuity preceptor, both trained as Bayer Institute faculty members. Each spent a half a day each week with the student, while maintaining a full patient schedule (8–10 patients per half-day clinic session). Additional time (about 1 hr) was spent after the clinic session for debriefing the student and planning for the next week's readings and assignments. The cost of the 1-week faculty development course to become a Bayer Institute faculty is \$2,500. With this training, the faculty member is able to facilitate the first Bayer workshop on clinician–patient communication and learns coaching techniques for instructing others in communication skills. Otherwise, the usual fee for a facilitator to conduct a Bayer workshop is \$1,000 total, for up to 30 participants.

We used three SPs. Because our primary-care curriculum has an established SP program, the case development, SP recruitment and training, use of the videotape facility, and payment submission for this project were considered indirect costs. Each SP session was about 2 hr long, including setup time, the actual interview, and debriefing. We used already-developed SP cases and SPs who were already trained in these cases. SPs are paid \$15/hr. They attended a 1-hr refresher training course prior to the session. The cost of an SP session was \$50. This included payment for the SP refresher training, portrayal time, and parking.

Discussion

On an annual basis, a few students at our institution have communication and interview skill difficulties to varying degrees. Up until this time, we have not intervened significantly with these students and have instead hoped that exposure to patients and role model clinicians in the 3rd year would help straighten things out. In many cases, students continued to have problems. We know that leaving remediation to chance is not good for patients, the profession, or the student who is becoming a physician. Now that we have developed this specialized intervention, we anticipate helping future students in a similar fashion. Because there is very limited published literature in this area, we believe that our interim report on this project may be of value to other institutions that are struggling with this same issue.

We plan to use this remediation curriculum as we identify other preclinical students with primarily communication skill deficiencies. This does not include students with primarily professional behavior issues, or those with primarily problem-solving deficiencies. These students are identified by their primary-care curriculum preceptors as well as during the SP examinations. Directed counseling about communication skills is initiated, but if the student's communication performance is consistently poor, the course directors committee makes the final determination to fail the student. Then a discussion between the student promotions committee and the dean of the medical school ensues, and this remedial 1-year curriculum is offered to the student as an alternative to dismissal. In this case, the videotapes of this student's SP exams were very helpful in the decision-making process regarding remediation versus dismissal.

This specialized 1-year communications curriculum was designed to address deficiencies in communication skills. With clear goals, preceptor-guided feedback, communications workshops, SP exercises, and a structured clinic experience the student's communication skills improved. The resources and skills framework we used are widely available. More than

400 Bayer Institute faculty practice worldwide, and the Bayer Institute has trained more than 10,000 practicing clinicians.¹⁵ SPs and precepted clinics are accepted educational tools; thus, this structured remedial curriculum should be transportable to other institutions.

Our intervention was successful. Ratings of the student's communication skills by the primary and continuity preceptor, program director, and SPs were uniformly and substantially improved by the end of the intervention year. As an unexpected aside, the student wrote a 12-page guide to interview skills for his preclinical colleagues.²⁶

We discovered several issues during the year. There was slight tension regarding the appropriate role of the "interventional" preceptor, who was to serve as coach by engaging the student, diagnosing problem areas, and teaching communication skills, while simultaneously evaluating progress on a monthly and quarterly basis. Ultimately, we located a second Bayer faculty member who was available to precept and coach during this transition year and was willing to proceed as continuity preceptor and coach for the student's 3rd year, allowing the intervention preceptor to complete his role as evaluator unambiguously.

This was a very fluid process, as we defined this structured curriculum in about a month to meet an urgent need for an individual student. No description of such an intervention has been published previously, and thus the primary preceptor created a curriculum and refined it over the course of the year in consultation with the course director and several Bayer Institute faculty.

There was also tension regarding the role of psychiatric intervention. Although it would have been helpful to understand the student's status in therapy, it would have crossed the line between helping a learner and taking on a patient. We decided to let a third party investigate the nature of the student's progress in therapy and to trust that process.

In retrospect, we could have improved on this curriculum in several ways. First, we could have scheduled the SP evaluations at more regular intervals. A greater variety of communication issues could have been explored with more SP sessions. Second, we discovered more formal SP and evaluator rating scales for communications and interviewing skills that we could have used in lieu of our own.^{12,27} Third, we could have allowed the student more clinical exposure during the year: A year focusing on communication is difficult to sustain based on only one half day of clinic attendance per week. Fortunately, halfway through the intervention year we enlisted the aid of another Bayer Institute faculty preceptor to take on this clinical supervision and add additional half-day clinics to the student's schedule.

Finding a preceptor with communication and coaching skills was important so that these skills could be

modeled and reinforced in the clinical setting. It appears that the preceptors in the first 2 years (who were not Bayer Institute faculty) had difficulty transmitting this important material to this particular student. There are broader implications of our experience. Perhaps more faculty preceptors should be exposed to the Bayer Institute materials and should consider becoming institute faculty by means of the weeklong faculty development course offered by the Bayer Institute. Although shorter term interventions in improving communication skills have not been shown to affect patient satisfaction scores significantly, enhancing skills of the faculty who teach, coach, precept, and mentor may result in a more consistent message about communications to our trainees.

Finally, we could have asked the student to complete more communications-related work. For example, he could have participated in teaching communications workshops to others. We could have asked him to keep a journal, as the preceptor did, and could have created a more rigorous reading-and-writing assignment schedule. We felt it important, however, that the student spend time maintaining his connection with his class and connection with the basic science curriculum and that he not learn communication skills in a vacuum.

We wondered if this intervention could have been accomplished in less than 12 months, but we were wary that shorter interventions would show mixed results.

In the student's 3rd year he did well. He continues to work with his primary-care preceptor, who coaches him in advanced communication techniques. He has adapted well to the stresses of the 3rd year and continues to report using his communication techniques regularly with inpatients and clinic patients alike. A recent SP exercise in family medicine resulted in a "glowing" evaluation from the SP and preceptor.

Conclusions

We created a year-long, multidisciplinary intensive curriculum to coach a 2nd-year medical student in communication skills, which was highly successful as measured by SP evaluations at the end of the intensive year and 6 months later. This intensive remedial year has been valuable for this student not only through enhancing skills but also through improving confidence. The interventions used are widely available and may be transportable to other institutions.

Two quotes from the student's communication guide written at the end of the intervention year are appropriate:

"People are such an integral part of our job as doctors, that in order to enjoy what we do, we must understand whom we are dealing with,"

and "through practice and discipline you should adopt the techniques that feel comfort-

able to you ... Only when you are comfortable will the patient be at ease, and only when the patient is at ease will the interview flow freely."²⁶

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