"Well, This Is Awkward": Autism Spectrum Disorder in Medical Trainees

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Abstract

Interpersonal communication can be a significant career stumbling block for medical trainees, even when they have exceptional knowledge and technical ability. If physicians have difficulty accurately reading verbal and nonverbal cues in patient encounters, they will likely be perceived as detached or lacking in empathy. Similarly, if trainees do not regulate their physical distance or the intensity of their speech, they may unintentionally alarm or anger patients. In this chapter, drawing on her extensive experience as a psychologist and healthcare management coach who works with students and residents referred for poor clinical skills, the author explores the common issues facing medical trainees with awkward interpersonal communication. Based on her experience, she recommends utilizing remedial skills-building strategies recently developed for adults with autism spectrum disorders (also referred to as neuro-atypicals) to work with such trainees. Strategies for partnering with trainees to ensure a successful remediation are discussed.

10.1 Introduction

Chapter 4 of this book extensively discusses remediation of communication skills and effective models of communication and coaching for most trainees who struggle in this domain. However, for people who have what is understood as autism spectrum disorder (ASD), the frustrations of interacting with a culture in which the social rules are mysterious carry with them the risk of anxiety and depression, symptoms that may be visible to remediation teams before an underlying communication issue is identified. Medical trainees who have a pattern of awkward interpersonal encounters, particularly those who are unaware of the impact of their own verbal and nonverbal behaviors, may benefit from remedial support based on skills-building strategies for adults with ASDs (sometimes referred to as "neuro-atypical" people). Strategies for partnering with trainees during development and remediation are discussed.

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10.2 The Patient's Experience: Patient-Centered Remediation of Students

When a student fails a high-stakes clinical skills exam, remediation teams must determine why in order to make sure the student can be coached on specific effective strategies to make sure he or she is both successful on the next exam and in all future clinical encounters. The team and the student must answer these important questions: What are the main causes for the student's difficulty with the exam? How does this manifest behaviorally? What is the performance data and how do we understand them?

Consider the following comments written by standardized patient (SP) evaluators of students who performed poorly on an eight-case Objective Structured Clinical Examination (OSCE):

1. "I felt so bad for this student. He was so painfully awkward and uncomfortable, and I wanted to help him. He wasn't able to reassure me at all."
2. "She was very cold and unemotional. I felt like she didn't know she was supposed to care about the patient."
3. "He sat really close to me, too close to me. He was super-intense. I felt scrutinized, like a lab specimen."
4. "She just stared at me. When my character revealed that her husband had recently died, the student just said, 'OK' and kept asking questions off a list."
5. "When he started the physical exam, he just raised my gown, without even saying anything. Who does that?"
6. "Her tone was just off. She smiled and laughed inappropriately and it was demeaning to me, completely unprofessional."
7. "He never looked me in the eye. Our interaction never got off the ground, so he didn't get a lot of the key information. My character's case includes a domestic violence component, and she would not have trusted him with this information."
8. "When I asked what test they would have to do for my heartburn, she used all this jargon—it was like reading a medical textbook. She said 'esophageal manometry' and then went into excruciating detail about how they would thread a tube into my nose and down my throat. I don't think a patient would come back after that!"

Now try to match the eight SP comments above with the *primary* explanations for the student's poor performance listed below:

(a) Did not prepare for this exam?
(b) Had an insufficient foundation of medical knowledge?
(c) Was severely anxious during the exam?
(d) Did not receive sufficient actionable feedback prior to this exam?
(e) Interacted with "real patients" much better than the exam performance suggests?
(f) Was unaware of his or her impact on the patient?
(g) Had difficulty reading facial expressions and other nonverbal cues?
(h) Had difficulty understanding the encounter from the patient's point of view?

Student 1's awkwardness stemmed from self-described anxiety (c). Student 2's remoteness related to her inability to treat the SP as she would treat a patient she encounters in clinical settings (e). Student 3, who was too intense, had been told about it in the past, but had not been given tools to correct it (d). Student 4, who did not interact with the standardized patient with empathy, had not prepared for the exam (a). Student 5, who raised the SP's gown, had

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no awareness of the impact he was having (f). Student 6, who laughed inappropriately, had difficulty seeing the encounter from the patient's point of view (h). Student 7, who did not make eye contact, has difficulty reading nonverbal cues (g). Student 8's use of jargon and procedural details stemmed from her lack of mastery of medical knowledge (b).

In the examples above, all of the student behaviors described by SPs had a negative effect on the interview process—and prevented effective information-gathering—but for very different reasons. Some of the reasons appear situational (test-taking anxiety, inability to suspend disbelief for an examination), and others appear more global, associated in some cases with difficulty in interpersonal interactions. The job of the remediation team is to put an SP's comment into the context of the student's overall clinical skills performance over time. The team must discern evidence of a behavioral pattern by reviewing the student's performance in other cases in the same OSCE, in past OSCEs, in clerkships, and by interviewing the student to determine the student's understanding of his or her exam performance.

If the student has had success in previous OSCEs and in patient interactions on various clerkships, any number of temporary, situation-specific factors could explain the student's current exam failure: lack of preparation, lack of sleep, specific fears, and general anxiety (particularly for summative exams with undifferentiated cases). Any student may temporarily appear to be disconnected from a patient, unsympathetic, overly formal, or severely awkward.

But how can the remediation team help the student who dreads OSCEs; who has a history of "awkward" or "odd" interactions; who, in an interview with a remediation team member, displays some of the same behavior (avoidance of eye contact or intense eye contact, awkwardness, overly formal speech); and who lacks of awareness of how his or her demeanor creates a stiff or uncomfortable interaction?

Four of the students in the example were identified as sharing very similar underlying issues. Student 1 attributed his awkwardness to performance anxiety. Student 3 exhibited an inappropriate intensity. Student 5 did not understand that raising a patient's gown could be perceived as intrusive. Student 7 tended not to make eye contact and knew he missed signals from others. All four tended to focus on the diagnostic task at hand rather than on building rapport with a patient. They felt that "the rules" for interviewing patients were constantly changing, and they described working very hard to "be better" but were frequently demoralized. In each case, a pattern of inability to meaningfully connect with patients became more visible and increasingly interfered with their clinical competence, as their training demanded more complex and integrated clinical skills.

10.3 The Path to Clinical Competence: Interpersonal Awkwardness Is Normal

Awkward interpersonal communication is a common developmental issue for many medical trainees. We expect that medical school graduates will ultimately become master clinicians—accessing vast stores of medical knowledge while displaying compassion toward patients and excellent clinical reasoning in arriving at diagnostic and treatment decisions. However, the paths to that outcome are widely varied and never as linear as students would hope. Students are often unaware that developmental waxing and waning is a necessary aspect of learning that all their teachers, now master clinicians, have experienced during their own training.

Early in training, students often find themselves "toggling" between thinking through case algorithms and developing rapport with patients, unable to do both simultaneously. This lack of

automaticity interferes with competent communication. However, when this "on or off" binary state lingers well into training years, students may have difficulty developing the integrated clinical skills needed to perform competently in a busy clinical environment. Students must understand that professional communication skills are not simply "nice to have," but constitute a critical core clinical skill.

Mastery of clinical interviewing requires students to have more than a strong knowledge base and clinical reasoning ability. Poor relationship skills severely limit the quality of information obtained in patient interviews, prevent a sense of trust from developing between clinician and patient, and can result in patients not adhering with treatment recommendations. Mastering relationship-building skills is the foundation for patient-centered care. In addition, students should be aware of unexpected consequences of having poor communication skills. For example, clinicians whose patients perceive to be uncaring are more likely to be targets of lawsuits than clinicians who are perceived as caring, even if the quality of care is the same. Huntington and Kuhn summarize the situation: "Patients are not likely to sue physicians with whom they have developed a trusting and mutually respectful relationship. Simply put, patients do not sue doctors they like and trust. This observation tends to hold true even when patients have experienced considerable injury as a result of a 'medical mistake' or misjudgment" [1].

10.4 Autism Spectrum Disorder

10.4.1 Avoid Labeling

Students and faculty alike embrace the popular psychology idea that socially awkward students are "somewhere on the autistic spectrum." The remediation team must carefully focus on behaviors that would improve students' clinical competence and avoid reinforcing notions that because students struggle with having a confident professional demeanor, they have a disorder.

The remediation team must also have a clear understanding of the true signs of autism so that the team can refer a student for accurate diagnosis and access to learning strategy coaching. Most students who are struggling to acquire communication skills do not meet the criteria for ASDs. The few students who are formally diagnosed with autism spectrum disorder typically express relief at finally understanding the reasons for their lack of progress.

10.4.2 Recognizing and Diagnosing ASD

The prevalence of ASD (all forms, from mild to severe) is estimated by the CDC to be about one in 88 children within the general population [2]. The definitions of autism and the nomenclature of autism spectrum disorders (ASD) have changed, as outlined in the recently released Diagnostic and Statistical Manual of Mental Disorders V [3]. The "Asperger syndrome" designation that defined a high-functioning form of autism that had a cluster of symptoms including impaired social functioning is no longer included in DSM-V. This remains a topic of controversy.

Three core features of autism are social and communication deficits, fixated interests and repetitive behaviors, and physical awkwardness. Social communication deficits include the lack of typical back and forth in conversation; lack of typical eye contact, body language, and facial expression; and difficulty maintaining relationships. A medical student with features of ASD is by definition high functioning intellectually, has been able to acclimate to new situations to some degree, and has learned to compensate for some missing behaviors that others might automatically display.

It is not unusual for highly educated adult professionals, including medical trainees and engineers, to struggle with undiagnosed ASDs well into adulthood [4]. Recently, organizations that represent the interests of "neuro-atypical" adults (versus non-autistic neuro*typical* adults) have begun working with the industry to enhance the likelihood of finding "good-fit" jobs for people who are neuro-atypical or who have disorders that make it difficult to interact with people. For instance, one international foundation,

Specialisterne, recently partnered with software engineering giant SAS to develop a global jobs network based on the premise that some roles on highly technical teams require exactly the type of thinking that neuro-atypical people possess [5].

10.4.3 Different Perspectives on ASD

Students who have had difficulty mastering the interpersonal skills required to "activate" patients may wonder if they have a condition or disorder. Their self-diagnoses may include being severely introverted or shy, having mild obsessive-compulsive disorder, or "being slightly autistic." The remediation team can serve a vital function in reducing students' sense of stigma associated with ASDs, to educate about the features of ASD, and to promote understanding of those who describe being neuro-atypical as an alternative way of thinking rather than as a syndrome.

Temple Grandin, PhD, is a well-known writer and speaker with autism whose professional work highlights the science of autism and the benefits of "thinking differently." She was recently asked to comment on a study suggesting that transcranial magnetic stimulation (TMS) could produce specific brain activity leading to improved ability to feel the emotions of others [6]. Dr. Grandin envisioned that for people with ASD, the procedure could have both positive effects (improving children's social learning) and negative effects (reducing the "single-mindedness of purpose" she identifies as a feature of autism and that she considers an element of her professional success) [7]. Other writers similarly articulate the advantages of being neuro-atypical. Diagnosed with ASD only after a painful and protracted experience, Sean Barron wrote, "[Neurotypicals] inject so much psychodrama into their social and professional interactions; they let their emotions take over their intellect. It causes a lot of problems that a little logic and common sense could prevent… [Neuro-atypicals] can often remain calm and focused in situations that drive more socially-oriented people off the edge of reason" [8].

10.4.4 Demystification of ASD and Initiating Remediation

Clinical skills remediation teams should be prepared to address a wide range of student fears and to reassure students that most issues can be addressed through practice and mindfulness. The remediation team members become role models through active listening, by offering concrete action plans, and by being supportive of insight and practice—all skills we expect the students to demonstrate in clinical settings. Being aware of our own fears and biases is critical to providing effective remediation for students. Particularly for communications skills remediation, the team should include professionals who have been trained in insight-oriented disciplines and who are attuned to interpersonal emotional impact. Psychologists and others with therapy training understand their own emotions as data to be used in decoding interpersonal dynamics. Similarly, the team should include professionals who can increase students' awareness of the nonverbal communication of body tension, unblinking eyes, hunched shoulders, etc. and give the students tools to remove stress-filled body language from their encounters with patients.

10.4.5 Remediation of Students with Awkward Interpersonal Interactions

Case 1: MF

Presenting Problem

MF failed the comprehensive clinical skills exam, a multi-station OSCE at the end of his clerkship year. His communication score was in the lowest 10 % of his class, but he performed relatively much better on history-gathering and physical exam skills. He wrote post-encounter patient notes that demonstrated exceptionally good clinical reasoning. However, all of the SPs reported that he did not make eye

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contact, he did not elicit or acknowledge the SP's discomfort or emotions, nor did he make any empathic comments. They also found him "odd and awkward." One SP was unnerved that MF had a "smirk on his face" while conducting the physical exam.

History in Medical School

MF was enrolled in our medical school for more than 7 years, having started before the pre-clerkship curriculum included rigorous high-stakes SP exams. He also completed a heavily mathematics-oriented PhD between the pre-clerkship and clerkship years.

Pre-clerkship faculty who had worked with MF reported that he was very bright and did well on written assignments but that he was "odd" in the classroom. He avoided eye contact with teachers and his peers, fidgeting with his notebook and pen during class. MF "hugged the wall" when walking in the hallway. His PhD thesis advisor reported that his work was very rigorous and detailed, but at times MF needed to be coached to see the larger context. Despite his odd behavior, he was well liked by his peers who were protective of him; they rallied around him when he was required to practice interviewing in the group setting. Some residents in his clinical clerkships found him "weird" and difficult to work with, while others reported that he was very responsible and smart.

Remediation

In his initial remediation meeting, the faculty remediation team member noted, "When we sit down together, he is soft-spoken and polite but visibly uncomfortable. When I ask him what he thinks about his exam results, he answers, "I am not surprised. I have never been good with people. My clerkships were so hard. I did fine on the Shelf exams and ok with the patients, but boy, did I blow it with the residents. I guess it is a good thing I can always go back to the lab. Do you think I have Asperger's?"

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The remediation team collaboratively developed a plan with MF that focused on increasing his awareness of his nonverbal behavior and its effect on patients. The team was sensitive to MF's demoralization, provided positive feedback on the many steps he had taken to form his professional identity, and helped MF to identify his professional goals and the steps he would take to achieve them.

Emotional intelligence was a useful framework for MF in becoming aware of his own internal state and behavior in a clinical encounter (self-awareness), choosing which behaviors to display and which behaviors to contain (self-control), noticing the emotional state of the patient (awareness of others), and noticing the change in the patient based on MF's choice of behaviors (impact on others).

MF was extremely apologetic at the beginning of remediation, which seemed to increase his self-consciousness, self-critical assessment, and awkwardness. He watched a video of himself interacting with an SP and was not aware of how closely he sat to the SP, or of his fixed grimace as he intently listened to the SP. The challenge was to find a state in which MF was comfortable, so that he could reference it while he practiced. Simply asking him to "smile more" or "make more eye contact" would not be sufficient. In one instance, he was asked to think of his favorite movie. A natural, pleasant smile drifted across his face. His awareness of that emotional state (relaxation, enjoyment, lack of self-consciousness) and the change in physical demeanor that went with it (less intense gaze, less awkward posture) were the building blocks for MF to practice choosing behaviors in his interactions with patients. [He was asked which movie had brought the smile to his face, and he answered, "Fargo," perhaps one of the most deadpan black comedies ever filmed.]

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As part of his remediation, he completed a series of exercises that focused on detecting the emotions of others. He invited feedback from several of his fellow students on his interactions with them and worked hard to incorporate their observations into his practice. MF worked closely with our SP trainer, a drama therapist and experienced stage director, to find ways that he could authentically express interest and empathy. MF had several opportunities to practice with an SP and receive real-time feedback so that he could adjust his approach without any negative consequences. In both the emotional intelligence work and the simulation practice of clinical skills, the principle of focusing on progress and positive feedback was key to lifting MF's initial sense that nothing could be done to help him.

MF's remediation addressed his question "Do I have Asperger's?" by discussing the evolving understanding of autism spectrum disorders, the diagnostic criteria, and the view of ASD as seen from the "neuro-atypical" perspective. MF was given access to resources if he chose to pursue the question in detail.

Outcome

MF retook and passed the comprehensive clinical skills exam. Throughout remediation, he had completed reflections about each stage of remediation and what he was learning. MF reported great relief that he could improve the impact he had on patients in clinical interviews. He described his own surprise at his improved ability to "read people" after extensive practice. He also described a deeper appreciation of his own strengths, including his analytical abilities and his perseverance. As part of the remediation process, through discussions with the team, his thesis advisor, and his family, he recommitted to his professional goal to return to a research laboratory setting and chose not to pursue training in a clinical discipline.

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Case 2: CK

Presenting Problem

CK failed the comprehensive clinical skills exam, a multi-station OSCE at the end of his clerkship year. His performance on history-gathering and physical exam skills was poor, and even though his communication scores were higher, SPs were very disturbed by his stilted demeanor and formal, exceedingly courteous manner, as well as his voice. Several SPs asked, "Is he making fun of me?"

History in Medical School

CK had passed all of his clerkships but had notable difficulty on OSCEs. He was offered additional preparation for the comprehensive clinical skills exam but had declined help.

Remediation

CK attempted several strategies on his own to improve his clinical skills exam performance. He had enlisted his family to help him identify problematic behaviors, which he then translated into a list of "better" behaviors he needed to practice, like having a firmer handshake or pausing when he introduced himself. However, the focus on the details of his own performance made him highly self-critical and distracted.

Our team discussed his need to improve his history-gathering and physical exam skills and to address the impact his demeanor was having on SPs. The question was raised about his level of anxiety and whether anxiety was affecting his performance. His clinical reasoning was a focus

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of remediation, so he immediately began working with a faculty remediation team member on practice cases.

When CK met with the SP trainer, the trainer was reminded of another student the team had discussed, who had said, "I see myself as waiting until the patient tells me I have been helpful, and then I can end the interview." For that student, re-framing her role from "helper" to "member of an expert team" led to improved confidence and to a display of more authority—which was more comforting to patients than she had anticipated. CK revealed to the SP trainer that he too saw himself as primarily a "helper" and that patients' anxiety made him extremely uncomfortable, as if the patients' emotion indicated that he had failed them. Once this core issue was uncovered, the SP trainer partnered with CK to create a "mission statement" to be fully present for the patient, focused on the patient, during clinical interviews. CK also found that having this mission took the focus off him, and his own awkwardness diminished.

The SP trainer used the principles of focusing on progress and giving positive feedback, resulting in CK becoming less self-critical. CK was surprised that in working with the SP trainer, he did not display any of the awkwardness noted in the exam video. Once this foundation was created, CK eagerly worked on concrete issues for improvement in his communication skills without the layer of self-criticism with which he began remediation. The normal pitch and rhythm of his voice appeared in practice interviews. He described that being calm allowed him to recall medical knowledge details that he had learned on his rotations.

Although it was clear to the remediation team that CK's anxiety, performance issues, and "helper" identity had deep roots and a deep personal meaning, the remediation interaction with CK remained focused on preparing for the exam rather than on introducing any deeper exploration that would have increased his sense of vulnerability.

Outcome

CK retook and passed the comprehensive clinical skills exam. However, in several cases, SPs noted that he still exhibited some of the problematic behaviors.

The impact of remediation on CK's overall confidence in himself as a clinician was dramatic. He described the work with the SP trainer as "perhaps the most insightful 2 h of my [medical school] training to date." CK described remediation as giving him perspective that he will bring with him into his professional life.

Students in both cases presented to the remediation team with awkwardness and a self-critical, demoralized demeanor. SPs had reacted negatively to both students. Both had demonstrated difficulties on prior OSCEs and benefited from mindfulness techniques that help people with communication disorders, even though neither student had been referred for or diagnosed as having a communication disorder. Specifically, using frameworks and techniques such as emotional intelligence, appreciative feedback, visualization, and presence helped these students in their interactions. (See Chaps. 4, 15, and 16 for specific guidance steps.)

10.5 Tips for Remediation

10.5.1 Interpersonal Skills Can Be Taught and Learned

An excellent resource for remediation teams and for students is journalist David Finch's poignant recounting of his discovery that he is a

high-functioning person with autism. His memoir, *The Journal of Best Practices: A Memoir of Marriage, Asperger Syndrome, and One Man's Quest to Be a Better Husband*, describes his profound relief to be diagnosed and his subsequent high motivation to address unintended and painful relational problems that were caused by his atypical communication [9].

A powerful remediation tool for communication skills is the video-recorded structured interview. Students can self-assess their performance against a checklist of expected behaviors and then compare their own assessment to the ratings given by SPs. Students then can discuss with remediation team members what they learned from watching the video and how it further shapes their remediation plan. Ideally, students would have access to best practices video recordings of cases to identify several ways that others approach the same OSCE case.

Students can also work directly with SPs to engage in a practice case and be given immediate feedback about the impact of the student's verbal and nonverbal communication on the patient.

10.5.2 Emotional Intelligence as a Framework

As mentioned above, a useful framework for improving interpersonal effectiveness is emotional intelligence [10–12]. A number of exercises and tools based on the emotional intelligence model are available, including a self-assessment and a 360° assessment. This emotional intelligence model can be applied to highly behaviorally based interventions, such that "self-awareness" can be concretely defined as encompassing an awareness of state of mind and the desired behaviors to display in a given interview (Table 10.1).

A fascinating approach to learning how to understand behavioral clues such as accurately reading facial expression is called the FACS, or Facial Action Coding System [13]. Analytically oriented students will find the approach to be detailed but precise, providing a method for decoding others' expressions as well as exploring the affect that the students convey. FACS is a concrete way to explore the gap between what people intend to convey and what others receive.

Table 10.1 Using emotional intelligence as a framework for guiding trainees with interpersonal difficulty

	Self	Other
Awareness	Displaying self-awareness "I know that when I am intense, it scares my patient"	Displaying other-awareness "I will know how well the interviews went by watching for the patient's relaxed facial expression and relaxed body posture, and by asking if I addressed the patient's concerns"
Management	Showing self-management "I will make sure I do not sit too close to the patient; I will break eye contact so that I do not stare; and I will nod to let the patient know I am listening"	Ability to influence others "I plan to ask the patient to follow up with my treatment plan. I will confirm that the patient trusted me when the patient says that my advice made sense"

10.5.3 Organizing Principles for Remediation in Learners with Suspected ASD

Five questions arise in ASD research and treatment, as described by Grandin, that are organizing principles for many communication trainings:

1. *Why build a relationship?* Neuro-atypical people can find interacting with "neurotypicals" exhausting, but managing complex emotional interactions is a requirement of medical practice [14].
2. *What is my co-worker/family member/schoolmate really saying to me?* The Affective Computing Group at MIT's Media Lab, expanding on Ekman's work in understanding facial expression, has developed evidence-based training tools for people who have difficulty decoding the facial expressions of

others [15]. For example, although people think that they frown when frustrated, research shows that people make brief smiles of frustration that a computer algorithm can distinguish from smiles associated with positive affect. Medical trainees with awkward interpersonal communication may benefit from reading about this and engaging in training based on this line of research.

3. *What do people think I am communicating?* A struggling trainee can engage in working with trusted others to better understand how to make simple distinctions between what a person intends to convey (e.g., being honest) and how the message is received (e.g., tactless and hurtful) [16].
4. *Do I have to act like I am not neuro-atypical?* Based on lessons learned in her own life, Grandin makes the following observation: *"I have learned about relating well to people. One unwritten rule is this: Whether or not a person has autism, fitting in socially requires that we each play by certain rules that form the structure of our society… I adjust to the situation instead of going into a situation and expecting it to adjust to me."*
5. *How do I learn to navigate so that I can be successful and independent?* Autism is expressed differently across individuals, and thus their "navigation needs" will likely need to be tailored. Aspy and Grossman describe the elements that should be included in any intervention designed for people with ASD. In addition to communication training, when working with neuro-atypical individuals, remediation coaches need to attend to analyzing the unique demands on them of tasks neurotypicals may find easy (e.g., such as asking for and getting help on clerkships) and working to find tools and strategies that help lower this demand enabling the neuro-atypical to function in complex environments [17].

All our work with medical trainees rests on the concept of the learning feedback loop: setting a goal, practicing, assessing progress toward that goal, then setting a new goal (next steps). In remediation, it is particularly important for the medical trainee to display the ability to go through these steps (see Chaps. 4 and 16). It can be particularly helpful to teach the student to conduct an ongoing gap analysis between the professional behavior a given clinical situation calls for (desired impact) versus the actual behavior the student displays in that clinical situation (actual impact).

We use the simple but rigorous approach above to design communication remediation plans as well.

1. *Why build a relationship?* Students whose original focus in patient interviews was data gathering to the exclusion of rapport building will emerge with a clear understanding of relational behaviors as the key to obtaining an accurate and complete clinical picture in a patient interview. These learners may also respond to data showing fewer malpractice claims and better clinical outcomes as a result of interpersonal connection and empathy.
2. *What is the patient really saying to me?* Students who initially could not read verbal and nonverbal signals from patients will understand that all patients are at a vulnerable moment regardless of the emotion they display. They can learn to ask about and respond to the patient's concerns.
3. *What am I really saying to the patient?* Students who were unaware of the specific behaviors that were limiting their clinical effectiveness will learn how to conduct an ongoing gap analysis between what they intend and how their message is received.
4. *Do I have to have a "personality transplant"?* Students who were self-critical and thought the only effective way to conduct a good patient interview would be to imitate someone else will begin to accept that their own authentic professional identities grow more comfortable with themselves.
5. *How do I learn to do what this role requires of me?* Students will develop individual learning plans based on their specific identified communications issues (speed of speech, interruptions of patient, questions perceived as tactless, abrupt transitions, eye contact, sitting too close, touching without permission, etc.). They will also identify and address barriers to practice of these skills in authentic situations (denial, shame, anxiety, competing demands).

10.6 Conclusion

As medical technology innovations take center stage, medical schools need to both implement technological change while ensuring that students develop into humanistic doctors. Moyer et al. delineated the experiences that tend to inhibit or encourage the development of humanism in medical students: "Students… reported that experiences of greatest intensity (e.g., being involved in a case where the patient dies), participatory learning experiences (e.g., volunteer work, international clinical rotations), and positive role models had the greatest effect on their development of humanism, whereas stressful conditions, such as a busy workload or being tired or post-call, inhibited their humanism" [18]. Thus, medical schools would do well to ensure that students have powerful, participatory experiences and faculty who embody and teach humanistic values. This chapter has sought to delineate techniques and approaches to helping students with difficulty creating rapport, highlighting how to encourage the importance of communicating with patients as individuals rather than as cases. With patience, hard work, and structure, there is significant hope for these learners.

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