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Improving Patient Experience by Teaching Empathic Touch and Eye Gaze: A Randomized Controlled Trial of Medical Students

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Abstract

Background: Empathy is critical for optimal patient experience with health-care providers. Verbal empathy is routinely taught to medical students, but nonverbal empathy, including touch, less so. Our objective was to determine whether instruction encouraging empathic touch and eye gaze at exit can impact behaviors and change patient-perceived empathy. **Materials:** A randomized, controlled, double-blinded trial of 34 first-year medical students was conducted during standardized patient (SP) interviews. A video either encouraging empathic touch and eye gaze at exit or demonstrating proper hand hygiene (control) was shown. Encounter videos were analyzed for touch and eye gaze at exit. The Jefferson Scale of Patient Perceptions of Physician Empathy was used to measure correlations. Intervention students were surveyed regarding patient touch. **Results:** Of this, 23.5% of intervention students touched the SP versus zero controls; 88.2% of intervention students demonstrated eye gaze at exit. Eye gaze at exit positively impacted patient-perceived empathy (correlation = 0.48, $P > .001$). Survey responses revealed specific barriers to touch. **Conclusion:** Medical students may increase perceived empathy using eye gaze at exit. Instruction on empathic touch and sustained eye gaze at exit at the medical school level may be useful in promoting empathic nonverbal communication. Medical educators should consider providing specific instructions on how to appropriately touch patients during history-taking. This is one of the few studies to explore touch with patients and the first ever to report the positive correlation of a health provider's sustained eye gaze at exit with the patient's perceived empathy. Further studies are needed to explore barriers to empathic touch.

Keywords

empathic touch, eye gaze, empathy, standardized patient encounter, patient perception

Introduction

Many clinical encounters are said to be devoid of meaningful personal interaction, creating challenges for an empathic relationship with patients (1,2). The importance of empathy in the patient–physician relationship has been well established (3,4). An empathic approach to patient care results in better health outcomes and greater patient satisfaction (5,6). Much debate has centered on how to nurture empathy among medical students (7). Studies have shown that training medical students in empathy is indeed possible (8,9). One recent study examined the results of an intervention with the proper use of EMR records to improve empathy of medical students and found that it improved medical students' empathic communication with standardized patients (SPs) (10).

Importantly, empathy is conveyed through verbal and *nonverbal* expression (11). Research shows that patients are not always direct, but instead provide "clues" to their concerns (12). Good nonverbal communication is critical to

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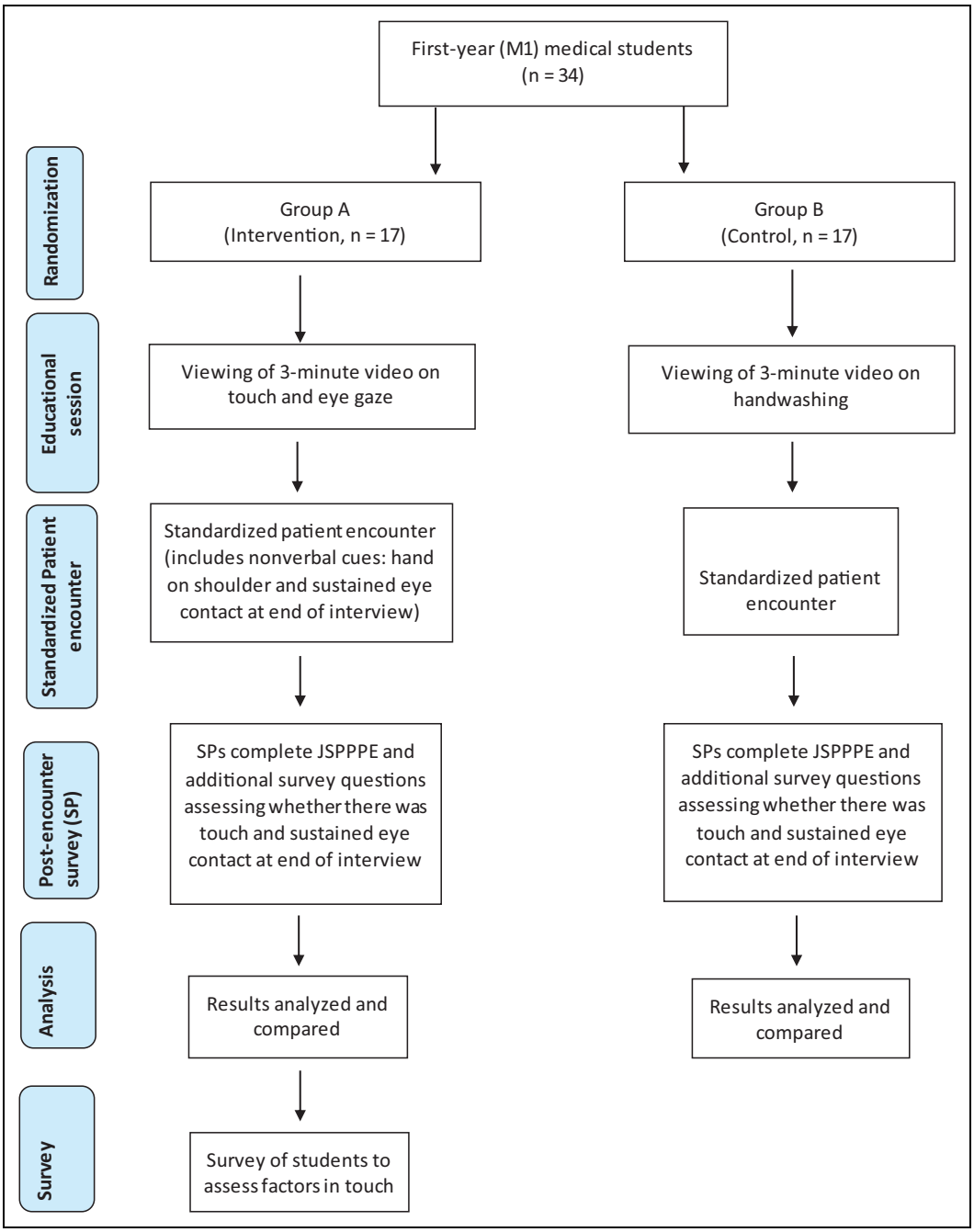

Figure 1. Flow diagram of research study protocol.

proper patient-centered medical care (13). Yet, while historically medical education has placed a great deal of attention on verbal communication with patients to demonstrate empathy, relatively little focus has been placed on *nonverbal* empathic communication (14). In teaching medical students who will practice in ever-increasingly diverse multicultural communities, the importance of nonverbal expressions of empathy may carry greater importance (14). It is the recognition of this need among health-care providers, particularly due to increasingly diverse patient populations, that led a group of physicians at Massachusetts General Hospital in 2014 to develop and test a teaching tool for nonverbal empathic behaviors to other physicians (14).

The feasibility of promoting *nonverbal* communication behaviors to improve empathy at the medical student level has not been previously explored. We therefore studied the effect of *physical touch* and *eye gaze* at exit on SP's perceived empathy as well as the impact of a brief instructional video, encouraging students to touch patients.

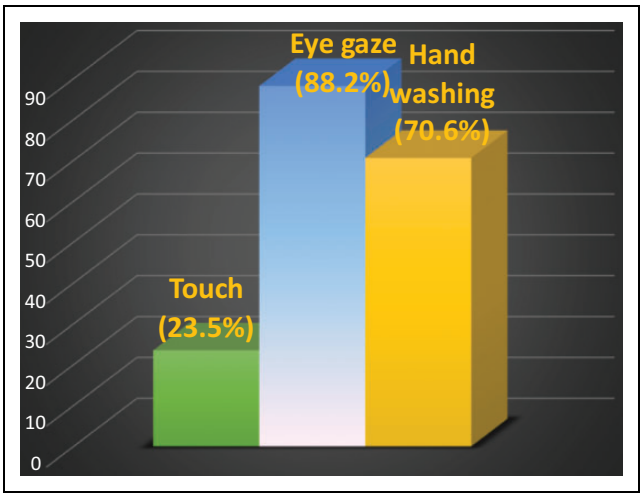

Figure 2. Student compliance with video instruction (touch, eye gaze, hand hygiene).

Methods

Study Setting

Randomized controlled trial of 34 first-year students at the Northeast Ohio Medical University (NEOMED) College of Medicine in the Foundations of Clinical Medicine (Clinical Skills) course. The research was conducted during a mandatory first-year medical student interview with SPs. For this interview, there were 2 SP cases used. Demographics for each case were a 44-year-old female and a 65-year-old male/female. Sixteen SPs were recruited for these cases, which included 7 females and 9 males.

Study Design

A total of 34 first-year medical students were randomized into 2 groups (Figure 1). Students in the intervention group (8 females, 9 male) viewed a 3-minute instructional video

What was your reaction to being instructed to touch the standardized patient (SP)?

I was initially afraid because we haven't been taught how to appropriately touch the patient. But I wanted to embrace this challenge and try to incorporate this into my interview.
I was surprised, and wary of actually doing it. I was unsure how to integrate it with the interview, and skeptical about how beneficial it would actually be to the patient.
My reaction was one of ambivalence, hesitation, and surprise. Despite the training and associated assurance that touching was a form of empathy, I remained unsure how the patient would react to the without-warning, hands-on approach (e.g., individuals differences in response to touch).
I felt out of my element and apprehensive.
This is not a normal thing to do on a first interview.
I did not like it. I will not touch a patient unless I have established a relationship with them or they went through something horrible. I will not touch an actor for the sake of their fake sadness during the standardized patient.
I felt like it was asking a lot of us. I did. It feel comfortable touching a standardized patient.
It was pretty unexpected, so I was quite startled/not prepared.
I was very surprised. There didn't seem to be very good background knowledge as to why we were being instructed to touch the patient. It was not very convincing.
I was nervous at first, but it felt natural and appropriate.
Hesitation.
A bit uncomfortable. We are living in a time that people (including patients) are suspicious of other people's motivations. We hear all the time about how touching people make them uncomfortable. In case of doctors, this is silly since we are going to touch our patients in far more intrusive ways than this research asked us too, but still I was a bit uncomfortable, mostly because I don't have any experience as real doctor.

Figure 3. Student responses to survey regarding touching standardized patients (SPs).

How did the instruction to touch the SP a number of times affect your approach to the interview?

Response
I became fixated on it for a while. I kept wondering when it would be appropriate to touch the patient 3 times, yet alone once.
It did not change my approach very much, as I have a routine to doing these interviews that I settled into. However, I did notice that I tried to make more eye contact with my patient, especially as I was leaving the exam room.
Since touching had not been a component of training to date, I feared it may disrupt my rhythm, particularly having to track a specified number of touches, while continuing to hone the other medical interviewing skills. The interview seemed to go well, although it felt unnatural at times while working towards the goal.
It made me more nervous as we were only told 5 minutes before we went in.
It didn't really change my approach
It did not. I disregarded the instruction. There was at one point in the interview where I thought it would be appropriate but I did not know the man and did not want to touch because he is an actor.
I felt like I physically could not touch the patient for far away so I brought my chair closer to the patient. I also tried to ask more questions where I might illicit a response where touching could be appropriate.
It did. I tried to sit a little closer to the patient as a result.
It made me more nervous going into the interview. Not only did I have all of the normal interview rules and methods in my mind, but now there was a whole new element that I had never practiced before. It made things more complicated.
First of all, I was consciously thinking about the task before I walked it and during the interview. I pulled my stool closer to the patient to have better access.
I was distracted.
Made me sit a bit closer than normal. Also made me mentally prepare myself to touch the patient when it seemed appropriate. Most likely, if I wasn't told to touch the patient 3 times, I wouldn't have touched her at all.

Figure 3. (Continued).

regarding touch and eye gaze at exit in the patient encounter, while the control group (11 females, 6 males) viewed a 3-minute handwashing video. Both groups then interviewed SPs for 20 minutes.

Data Collection

The Jefferson Scale of Patient Perceptions of Physician Empathy (JSPPPE) is a validated and widely used instrument to measure *patient*-perceived empathy (15,16). A 7-item questionnaire uses ratings from strongly disagree (1) to strongly agree (7). We added 5 additional items to assess whether specific nonverbal behaviors were performed by the student. A sample additional item was "Did the Student Doctor make eye contact with you on his or her way out the door after the encounter?"

Audiovisual recordings of SP encounters were analyzed for touch (*excluding* routine handshake), eye gaze at exit, and handwashing. A true "empathic touch" was defined as a physical interaction by the student, associated with an empathic moment with the SP. Any "pseudo-touches" (reaching out to the SP in reaction to information relayed) were noted but not counted. Any sustained eye contact with the SP at exit was also noted. A brief survey was given to students regarding their experiences with physical touching of SPs to identify barriers to such touch.

Statistical Analysis

Correlations between SP perceived empathy with physical touch and eye gaze were assessed using the JSPPPE (3,4). Levene's test of median-based homogeneity of variance assessed data distribution, and the Mann-Whitney *U* test compared differences between groups. Kendall's rank correlation indicated correlations among JSPPPE responses.

Results

Results indicated that 23.5% (4/17) of the touch video (intervention) group performed at least one touch during the SP

In what ways did being instructed to touch the SP affect the dynamics of the interview? Did you feel pressured to touch? Was touching on your mind in some way?

Response
Touching was always on my mind. I did feel pressured to touch the patient because I didn't want to fail the study. It didn't affect the flow of the interview, however, it was always in the back of my mind.
It did not change the interview. I did not feel very pressured to touch, as I had settled into my routine. Touching was only on my mind during the beginning and end of the interview.
Introduction of the skill into my interview approach did not seem to have a drastic effect on the dynamics of the interview, although it was distracting at times trying to multi-task and balance this novel skill with regularly-practiced skills I had recently become comfortable consistently executing. I felt pressured to complete the new task, and realized I was short near the end of the interview, extending my hand to get one more touch in during the final summary, which the standardized patient possibly perceived as a premature handshake in the middle of it, also reaching out to shake my hand.
It was on my mind and it distracted me a bit. I did feel pressure to touch him.
The idea of touching was distracting at the beginning of the interview, but it went away.
I felt pressured to touch and there was one instance that I thought it was appropriate but refused to do so.
I did feel pressured to touch. I felt that if I didn't touch the patient I would be letting the investigators down.
I did feel pressured to touch, so that was on my mind the whole time, however, I didn't feel like I had the opportunity to.
Watching the instructive video, I did feel pressured to touch the patient. When it came to the interview, however, I could not focus on attempting to touch. It was on my mind at the beginning, but then it went away and I focused on being involved in the conversation with the patient and really connecting.
Touching the patient was on my mind but I did not feel pressured to touch. I believe that on some level, it brought my closer to the patient and her to me. It added an element of empathy and care to the interaction.
Because I never got a straight answer on whether the patient knew they were going to be touched. Had that been a yes, I would have had no reservations.
Yes.
Yes.
I was mentally prepared to touch the patient even though I was still a bit hesitant. I think it made the interaction much more genuine than simply going through the motions. I consciously made the effort to keep the touch instructions in forefront of my thoughts. I did feel a bit obligated to comply with the instructions for the sake of the research's integrity, but when I finally did touch the patient it was very normal and not awkward at all.

Figure 3. (Continued).

encounter, whereas 0% (0/17) controls. Eighty-eight percent (15/17) of intervention students demonstrated eye gaze at exit, versus 29.4% (5/17) controls. Analysis with JSPPPE scores compared all 20 students who performed eye gaze at exit versus those who did not. A total of 70.6% of students (12/17) who viewed the "hand hygiene" video were compliant with hand hygiene. Hand hygiene compliance was greater than touch (Figure 2). Eye gaze at exit was the only maneuver that showed a statistical correlation with JSPPPE scores. Kendall's Tau (correlation) was 0.479 for eye contact at exit with a 2-tailed significance of .001.

In the survey that followed the study protocol, some students reported discomfort and uncertainty related to physical touch with a patient during the interview (Figure 3).

Discussion

Medical education has traditionally focused on improving verbal empathy. However, the need for portraying empathy in *nonverbal* communication skills during patient–physician encounters is increasing. Our study demonstrates one approach, through educational video, in which nonverbal techniques in the patient encounter can successfully be

How did being instructed to touch the SP affect your performance?

Response
It didn't affect my performance. I was still able to complete the interview.
It did not change my performance.
I felt slightly nervous entering the exam room with this instruction in the back of my mind while setting the agenda and beginning the interview; however, I felt I generally remained calm and set a comfortable tone with the patient, which ultimately allowed for a successful interview. Furthermore, the patient did not seem affected by the empathic touching.
I don't think it did
Definitely made the performance seem off
NA
It hindered my interview performance and I was more focused on how I can find appropriate opportunities to touch the patient rather than on the actual interview.
It might have negatively impacted my performance, simply because I couldn't figure out an appropriate time to do it.
I don't think it affected my performance much, except for making me a little bit more nervous.
I believe that my performance was better due to this task. It was one of my best interviews.
It through off my rhythm a bit, but I was out of practice interviewing anyway, so I don't think it had a major impact.
I can't be sure, but if it did, it made it better.

If you didn’t touch the SP, what prevented you from touching the SP?

Response
Both physical and mental barriers prevented me from touching the patient. I am a short person, so reaching out to touch a patient is not organic for me, as I have to lean far forward or move my chair very close to the patient to make that happen. Also, I was very skeptical that it would help me connect with my patient; I do not believe that touch is the best way to convey empathy, and so relied on other tools I have learned in eye contact and reflective statements to build the relationship.
N/A (There was at least one time I extended my hand but did not make contact with the patient, but mainly because it did not feel like an appropriate time to reach out to the patient as far as the other two touches.)
The only thing I could reach was the patient's knee, which I felt uncomfortable with. Also, my patient didn't have a really vulnerable moment emotionally that really called for me to touch him.
There wasn't a right moment
I will not touch a patient unless I have established a relationship with them or they went through something horrible. I will not touch an actor for the sake of their fake sadness during the standardized patient.
I initially shook the patient’s hand, and then found one opportunity during the family history to touch the patient. I really wanted to find other opportunities but I couldn’t because I felt uncomfortable doing so.
I didn't feel like I had an opportunity to. I did not want to force an interaction like that. I also did not know if the "patient" would feel comfortable.
I wanted to make my practice CSA interview as best as I could, and trying to add in a new element would have made it worse. I did not see and gain in attempting to touch the patient.
I couldn't remember if we were instructed to be allowed to touch the patient's knee or if we were instructed to touch only the arm and should (as I recalled). The patient had her hands crossed over her lap for a majority of the interview. Thus I figured that if the patient didn't know that I was supposed to be touching, reaching toward her privates would be ill-received regardless. I would have been completely comfortable touching her knee, however.

Figure 3. (Continued).

If you did touch the SP, what motivated you to do so, and what was the experience like for you?

Response
My motivation to touch the patient was that the situation was appropriate. The patient was describing that his brother was diagnosed with cancer and was visibly upset. So the situation called for empathy and appropriate touch for reassurance.
N/A
The prior instruction and goal-setting motivated touching the patient and the best way to describe the experience, in my opinion, would be that it felt unnatural and certainly "different" - I feel it would take some getting used to for it to feel completely natural for me and genuine for the patient.
N/A
NA
The one instance I did touch the patient, I felt uncomfortable. I wasn't sure how he would perceive it.
n/a
I did not.
What motivated me to do so was the fact that I was given this task in the instructions.
I had multiple reasons. First, I was told to do so. Second, the moments seemed right. My patient was in tears several times during the interview. I can't tell whether touching her put her at ease so she could freely let her emotions be expressed or she was going to be that way regardless. Nevertheless, I think touching her helped some to say the least.

Figure 3. (Continued).

promoted in teaching medical students. Perhaps the most interesting facet in recent studies on nonverbal behaviors is what they reveal about the patient's *perception* of the health-care provider. For instance, while intuitively empathic nonverbal maneuvers have been long thought to convey warmth, Kraft-Todd et al (17) recently showed that nonverbal behaviors project both warmth *and* technical competence in the eyes of the patient. This has important implications for establishing patient satisfaction, which has been linked to interpersonal trust between patients and their health-care providers (18).

Physical touch serves as one key tool of empathic, nonverbal communication. In general, 2 forms of touch have been described in the physician–patient encounter: *diagnostic touch* with a clinical aim that serves to help arrive at a diagnosis and *healing touch* that has social significance or meaning (ie, hug, handshake, or pat on back) (19,20). It has been suggested that the act of touching results in several positive benefits for the therapeutic relationship between practitioner and patient (20,21). Thus, *healing touch* serves as a powerful form of empathic communication, and simple maneuvers such as placing a hand on the shoulder, handshake, or holding of the patient's hand may go a long way in creating closeness, alleviating anxiety, and establishing a patient's trust and confidence in the health practitioner (22). Importantly, findings in one study show that patients feel uncomfortable after more than 3 occasions of physical touch during an interview (23).

Yet, the act of empathic touch among medical students and their comfort level is unclear and has not been widely studied. Interestingly, in response to the videos, fewer students in the intervention group (23.5%) touched the SP during the interview, while 88.2% in the same group (vs 29.4% in the control) demonstrated eye gaze upon exit. Seventy percent in the control group washed their hands after watching the control video. Our data suggests it is easier to promote the behaviors of eye gaze upon exit and handwashing, than touching. However, touching of the patient in about one quarter of the intervention students versus zero in controls indicates the potential of teaching and promoting empathic touch.

There are clear challenges in promoting touch in patient/SP interviews. Reported barriers to touch include fear of touching the patient due to a lack of knowledge in how to touch the patient. Students expressed discomfort in touching SPs, particularly given current notions about the inappropriateness of touching others in public. Providing specific instructions on how to carry out an empathic touch may be warranted. Our results indicate the need to make students more comfortable touching SPs during an interview.

What do you think about touching patients in the context of a medical encounter?

Response
I think it was value and can improve the physician-patient relationship and trust.
Touching patients in a medical encounter can be extremely useful, as it can illuminate diagnostic clues and also establish another channel of comfort and connection between a patient and a physician. However, in the context of a first medical encounter like the one practiced, I feel it is inappropriate and can feel invasive or uncomfortable for a patient whom one does not know well yet.
I feel that it has the potential to be beneficial in some contexts, depending on the patient and the patient's needs at the time of the encounter.
I think it would be helpful in specific situations, particularly those that are highly emotional for the patient.
It is inappropriate, especially in a first encounter, unless the situation is very emotionally traumatic
I think it is in good practice if you have established a relationship or if the patient is not an actor like the ones in Wasson.
I think touch should come naturally. For example if a patient is newly diagnosed with cancer or a patient is grieving because of the loss of a parent, it would be totally acceptable to touch. Some patients may be more friendly than others and some may have more conservative cultural backgrounds where touching of the opposite gender isn't highly regarded. I believe touch can help show empathy but should only be used when appropriate.
I think it could be a good thing to do to convey sympathy/empathy. However, I do not believe all patients would want to be touched.
I do not think touching the patient really adds anything to the encounter. It is possible that touching patients could have a particular setting, but I think it would be after the doctor-patient relationship is established.
I believe that it can be a vital tool in strengthening the patient-physician interaction but it also depends on the context and the patient and whether they feel comfortable with physical touch .
It's easier for me to deal with sincere emotion. I know that our "patients" aren't highly trained actors and I certainly don't fault them for that, but watching them try to fake cry really breaks the whole illusion.
I think depending on a patient could be a powerful tool. also, I think where and how you touch a patient could significantly affect how a patient feels about it. A touch on someone's shoulder as in a manner of a higher authority may not help in opening up a patient.

Figure 3. (Continued).

It must be remembered that these were first-year medical students without much actual patient experience. The responses to the request to touch the patients were varied. Many were surprised and some said they wanted more training in touch. Others thought it was inappropriate to touch a patient, much less a standardized patient under any circumstance on the first visit. Clearly, there were barriers to touch for some, but not for others. Students mentioned the following as barriers to touch: patient unfamiliarity, low degree of emotional distress, and use of SPs as patients. In addition, SPs, being actors, presented a barrier to touch for some. We usually assume SPs to be the highest fidelity example of patient encounter simulation, but this may be an example of a limitation.

Our study is the first to explore the correlation of a health provider's eye gaze at exit with the patient's perceived empathy. There was a statistically significant correlation between eye gaze at exit and JSPPPE scores. This finding corroborates the results of previous studies that have demonstrated a relationship between eye-gaze patterns and empathy (24). Montague et al (23) have shown that a physician's gaze significantly impacts the patient encounter. Yet anecdotally, there are moments in the clinical encounter that are devoid of eye contact by the physician. This is only worsened with a computer in room, competing for the physician's attention. For instance, a physician may have his or her back turned to the patient without maintaining eye gaze as he or she exits the room at the end of the patient encounter. As the end of the encounter presents one final opportunity to leave an impression in the patient's mind, the physician's eye gaze as he or she exits the room may have unique importance.

What do you think about touching patients in the context of a Standardized Patient medical encounter?

Response
I think it was value and can improve the physician-patient relationship and trust.
I feel that it is appropriate to practice touching patients, particularly in use of touch as a diagnostic tool (feeling nodes, palpating pulses and organs through skin). However, because the encounter in which this was practiced was an introductory, history-gathering encounter, I do not believe it to be appropriate nor useful. Additionally, I think there needs to be far more didactic instruction in touching standardized patients before actually having an encounter with them.
I sensed that these patients were briefed on the situation, particularly if they had interacted with multiple groups of student physicians and had not been touched in the time leading up to this encounter. The standardized patients seemed to take it in stride and did not appear effected or phased by the added element. It is difficult to compare these particular patients to a baseline and/or patients in the past, because all of the patients are different and would likely react differently in more realistic conditions.
I would like a little more warning. The seating arrangement is also not ideal to be able to reach the patient's shoulder. Dr. Lecat did it really well on the example video, but many of us don't have the arm length to do it without having to scoot toward them.
I think it is even more inappropriate
Inappropriate.
I think touching a standardized patient should only be part of the interview if the standardized patient has a story of grief/distress/etc. if someone is coming in because of a backache and isn't opening up much in terms of psychosocial, it doesn't make sense to touch the patient.
I think it could be a useful tool to have, but it might be better if we go over it in our small group sessions first.
I do not think touching patients in our practice circumstances is warranted or helpful to our goals.
I think it gives students a different perspective and adds a sense of reality to the interaction. It also can bring about a sense of calm and positive emotions.
I am always for it, I just wish that we would have been told explicitly that the patients knew they may be touched and that the fake crying (or, worse, getting "choked up", apologizing to me for almost crying, and dabbing their dry eyes) could be done away with. However, moving forward, I would certainly volunteer again and actually complete the experiment next time.
I think it could serve as a great learning tool. As doctors, we must get comfortable touching our patients, however, most of us are still very uncomfortable doing so. This can go a long way in making us comfortable with touching patients. Standardize patients can offer the most accommodating environment to start working toward that goal.

Figure 3. (Continued).

The strengths of our study include the randomized and double-blinded protocol and a mixed-methods methodology. Studies report mixed results in terms of whether empathy declines in the last year of medical school compared to the first year (9,25,26). Thus, our study included first-year medical students to best measure empathy in a student subset in which empathy may be at its highest level.

The study has several notable limitations, including small sample size. It only enrolled first-year medical students. It is possible that variations in demonstrated empathy may exist in students at later stages of medical school. Additionally, while the intervention group was encouraged to physically touch their patients, not all encounters entailed narratives warranting an "empathic touch." Encounters in which students touched the SPs may have been in the context of patient histories that were more likely to elicit empathic responses compared to others.

Our study only explored student feedback from the experience of touching SPs and did not delve into SP reactions to touching by the students (apart from the empathy scoring). Thus, we lack qualitative insights on whether the experience of being touched helped in building empathy in the view of the SP.

The nature of SP and medical school interactions, in which both parties are aware of their roles in a situation that is not real, limits our ability to definitely determine whether

the same results would apply in real-life medical encounters that routinely occur between physicians and patients. Thus, the findings may be influenced by the perceptions of the students who knew they were partaking in a graded exercise and the SPs who were aware of their role as actors.

It is also important to note that not all patients may welcome nondiagnostic physical touch and sustained eye contact by the physician, as individual comfort levels may differ. Furthermore, perceptions of physical touch and sustained eye gaze may vary across cultural and religious groups. Thus, any implementation of a program in medical schools that teaches nonverbal empathy should ideally mention situations during which empathic touch and eye contact may not be appropriate.

Conclusions

The study illustrates the potential of greater physical touch and eye gaze to improve empathy and interpersonal connection among medical students during their medical school career and beyond. It reveals a significant positive correlation between sustained eye gaze at exit and a patient's perception of empathy; we believe this is a new finding. The touch video appeared to result in 23.5% of students touching their patients. This demonstrates the potential of brief instructional videos in teaching nonverbal empathy. An opportunity exists to improve student comfort with touching patients and for providing specific guidelines on touch. Resistance to touching SPs as patient may need to be directly addressed in the orientation or prebrief prior to the start of the simulation. Just as we provide learners the opportunity to see, touch, and experience the examination room, bed, instruments, and setting where they will conduct the interview, we may need to educate and normalize professional empathic touch in the context of the medical interview.

To our knowledge, this is the first study to instruct and encourage touch, and eye gaze at exit, using brief videos, and correlate these behaviors with an empathy score. Further studies are needed to explore barriers in empathic touch during medical student–SP interactions. Perhaps the best summary comment is given by a student: "I think it (using SP encounters to teach and encourage empathic touch) could serve as a great learning tool. As doctors, we must get comfortable touching our patients, however, most of us are still very uncomfortable doing so. This can go a long way in making us comfortable with touching patients. Standardized patients can offer the most psychologically safe and accommodating environment to start working toward that goal."

Authors' Note

The study was approved by the Northeast Ohio Medical University (NEOMED) College of Medicine institutional review board (IRB) and conducted upon approval. The study was presented at the Cleveland Clinic Patient Experience Empathy and Innovation Conference, June 18-20, 2018; Cleveland, OH.

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