E.M.P.A.T.H.Y.: A Tool to Enhance Nonverbal Communication Between Clinicians and Their Patients

Helen Riess, MD, and Gordon Kraft-Todd

Abstract

There is a gap in the medical education literature on teaching nonverbal detection and expression of empathy. Many articles do not address nonverbal interactions, instead focusing on "what to say" rather than "how to be." This focus on verbal communication overlooks the essential role nonverbal signals play in the communication of emotions, which has significant effects on patient satisfaction, health outcomes, and malpractice claims. This gap is addressed with a novel teaching tool for assessing nonverbal behavior using the acronym E.M.P.A.T.H.Y.—E: eye contact; M: muscles of facial expression; P: posture; A: affect; T: tone of voice; H: hearing the whole patient; Y: your response. This acronym was the cornerstone of a randomized controlled trial of empathy training at Massachusetts General Hospital, 2010–2012. Used as an easy-to-remember checklist, the acronym orients medical professionals to key aspects of perceiving and responding to nonverbal emotional cues. An urgent need exists to teach nonverbal aspects of communication as medical practices must be reoriented to the increasing cultural diversity represented by patients presenting for care. Where language proficiency may be limited, nonverbal communication becomes more crucial for understanding patients' communications. Furthermore, even in the absence of cultural differences, many patients are reluctant to disagree with their clinicians, and subtle nonverbal cues may be the critical entry point for discussions leading to shared medical decisions. A detailed description of the E.M.P.A.T.H.Y. acronym and a brief summary of the literature that supports each component of the teaching tool are provided.

Nonverbal behavior may be the most important clinical sign that is "hiding in plain sight." The cost of missing nonverbal patient cues has significant implications for patient satisfaction, health outcomes, and malpractice claims. There is a gap in medical education in teaching nonverbal detection and expression of emotions. Although most human interaction and communication is nonverbal,[1,2] nonverbal communication skills are not typically taught in courses where clinicians learn to obtain medical histories, explain medical interventions, or give bad news. The social psychology literature is making significant contributions on the roles that facial expression decoding,[3] posture,[4] tone of voice,[5] and other nonverbal forms of communication play in human interactions. Additionally, in an increasingly culturally diverse world, language differences between clinician and patient can be an obstacle to providing optimal medical care. In these settings, accurate interpretation of nonverbal signals becomes ever more crucial to understanding patients' communications of confusion, fears, or disagreement, both at the cultural and interpersonal level. Many patients, regardless of cultural differences, are reluctant to disagree verbally with their clinicians, and accurate detection of subtle nonverbal cues may be the critical entry point for discussions leading to shared medical decisions. To address this gap in medical education, the first author (H.R.) developed a new teaching tool grounded in the neurobiology of empathy that may be used as an easy-to-remember teaching tool: the acronym E.M.P.A.T.H.Y.—E: eye contact; M: muscles of facial expression; P: posture; A: affect; T: tone of voice; H: hearing the whole patient; Y: your response.[6] This tool has the advantage of helping clinicians remember the key components of assessing nonverbal behaviors irrespective of culture.

The E.M.P.A.T.H.Y. acronym was the cornerstone of a randomized controlled trial of empathy training, which emphasized nonverbal communication, at Massachusetts General Hospital, 2010–2012.[7] Developed as a unifying training concept that reoriented clinicians to nonverbal aspects of communication, the E.M.P.A.T.H.Y. checklist continues to be used locally and internationally in empathy training programs for residents and faculty physicians seeking to improve their communication skills. It can also be included in assessment tools for evaluating learners on interpersonal and communication skills.

We contend that if this checklist were incorporated into communication skills courses in undergraduate medical education and reinforced in future clinical training settings, nonverbal behavior detection proficiency would improve in clinical encounters from novice to experienced clinicians. In this Perspective, we define and provide an exposition of the E.M.P.A.T.H.Y. checklist and justify its utility through an evaluation of the literature on nonverbal communication.

Empathy Is Needed in Clinical Settings

Many valuable articles on shared decision making,[8–10] appreciative inquiry,[11,12] and motivational interviewing[13,14] have

Dr. Riess is associate clinical professor of psychiatry, Harvard Medical School, and director, Empathy and Relational Science Program, Massachusetts General Hospital, Boston, Massachusetts.

Mr. Kraft-Todd is clinical research coordinator, Empathy and Relational Science Program, Massachusetts General Hospital, Boston, Massachusetts, and lab manager, Human Cooperation Lab, Yale University, New Haven, Connecticut.

Correspondence should be addressed to Dr. Riess, Massachusetts General Hospital, Wang ACC Suite 812, Boston, MA 02114; telephone: (617) 724-5600; e-mail: hriess@mgh.harvard.edu.

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informed medical education, providing excellent models to enhance clinicians' verbal communication in medical encounters. These models have been designed to improve patient engagement, trust, and motivation and to encourage healthy behaviors. These models have focused on "what to say" in clinical encounters, but few address clinician comportment, or "*how to be*" with patients. In addition to effective verbal communication, nonverbal behavior is critically important for achieving patient satisfaction, adherence to treatment, and shared medical decisions. Patients are calling for more compassionate care, and the government and third-party payers are now basing hospital reimbursement on patient satisfaction ratings.[15,16]

To answer this call, more attention must be paid to nonverbal displays to ensure effective patient–clinician communication. Clinicians can better understand and attend to patients' emotions by decoding nonverbal behaviors and facial expressions, which is also a critical diagnostic clinical skill.

Patient-centered care is becoming increasingly important as health professionals work towards providing emotionally accurate, culturally competent care. The ability to understand emotional communication from patients from all walks of life, and to communicate that understanding with empathy, is critical.[17] The United States' increasing diversity and the implementation of the Patient Protection and Affordable Care Act make cross-cultural competency even more critical in the policies and practices of health services. Cross-cultural misunderstandings can negatively affect patient satisfaction, clinical decision making, and treatment adherence.[18–20]

Eye contact and touch are examples of cultural differences in nonverbal behavior and the expression of empathy. Studies have found that whereas Western cultures prefer maintaining eye contact, Eastern cultures preferred more flexible use of eye contact. There are important cultural differences in greeting others, and the difference between respectful eye contact and staring has significant implications.[21,22] Research on touch demonstrates distinct cultural preference for touch and body distance.[23–27] Therefore, touch is considered to be highly culturally determined and is not included in the E.M.P.A.T.H.Y. acronym.

Clinicians find empathic care challenging in a health care climate focused on technology, increased documentation, and regulation. A primary focus on technology results in overlooking many nonverbal emotional signals. In the worst case it may result in misunderstanding and dismissing patients' concerns, leading to greater patient anxiety, lower treatment adherence, and poorer health outcomes, as well as a greater likelihood of malpractice claims, 82% of which are the result of communication breakdowns.[28,29] For example, surgeons' tone of voice is an important predictor of claims filed by dissatisfied patients.[5] Clinicians value empathic care, but a common perception is that empathic care is too time-consuming. The E.M.P.A.T.H.Y. acronym focuses on empathic nonverbal communication behaviors that do not require additional time. Without engaging in lengthy conversations about patients' emotional experience, clinicians can still provide a caring glance or sit down with patients, which will communicate greater respect and understanding without extending the length of a visit. Our empathy education, developed at Massachusetts General Hospital, is the first evidence-based approach to nonverbal communication that demonstrated improvement in patient perception of clinician empathy.[7]

Empathy Is Necessary for Emotion Detection

Nonverbal communication is no jinn conjured by academics; the most subtle nonverbal approach and avoidance signals are detected in the amygdala more quickly than the prefrontal cortex is able to process verbal content.[30,31] Not only are nonverbal cues processed faster but they also have a greater impact on the perceiver than corresponding verbal statements.[32] Nonverbal signals of trustworthiness have been specified to the degree that even when expressed by robots, they have significant impact on economic exchange behavior.[33] In one experiment, for example, subjects rated the robot as less trustworthy and expected the robot to give fewer tokens in an exchange when the robot crossed its arms and leaned away. Because of the importance of trust in the patient–doctor relationship, clinician nonverbal communication is a powerful predictor of how much trust patients will place in their clinicians.

Just as verbal communication consists of listening and speaking, nonverbal communication consists of perceiving and expressing. In teaching nonverbal skills, educators must be aware not only of patients' signals but also of what is conveyed by the clinician. Teaching clinicians how to transmit nonverbal behavior is especially important because nonverbal cues are usually so subtle that they are perceived without conscious awareness.[34]

Mirror neuron research provided the first neurobiological basis that actions an individual observes in others are translated into internal representation in the observer's brain. Early mirror neuron research attributed internal representations of others' actions, facial expressions, intentions, and emotions specifically to mirror neurons in the prefrontal and inferior parietal cortices.[35] For example, when facial expressions of sadness or disgust are perceived by observers, observers experience similar emotions in attenuated form.[36]

Mirror neurons are now considered to be responsible primarily for action representation. Subsequent research has elucidated shared neural circuits involved in touch, pain, emotion recognition, and other sensations that map the experience of others onto observers' brains. These interconnected and associative cortices enable shared emotional experiences between an observer and the observed person, providing further support for a neural substrate of empathy.[37]

Because of its multimodal and often-subconscious nature, specific training in empathy is required to bring greater awareness to and understanding of nonverbal communication.[38] The E.M.P.A.T.H.Y. acronym serves as a checklist to orient medical professionals to key aspects of perceiving and responding to emotional cues. The acronym was created from a review of the vast nonverbal behavior literature, which we summarize below.

A Guide to *E.M.P.A.T.H.Y.*

E: eye contact

Eye contact, a key component of social cognition, is usually the first signal that one person has been noticed by another.[39] Although there are different cultural

norms governing eye contact,[21] making meaningful eye contact is an element of patient engagement that is particularly important for clinicians using multiple forms of technology during medical encounters. Converging evidence from neuroimaging and electrophysiological studies of autistic patient populations has pointed to the importance of eye contact in physiological arousal and relating to others.[40] Other studies argue that "social gaze … enables us to … build an indispensable basis for coordinated action and collaborative efforts."[41]

M: muscles of facial expression

Facial expression is a component of nonverbal communication that affects patient health outcomes.[42] There is an extensive literature on seven universal facial expressions,[43,44] and neuroimaging studies reveal that empathy is related to the ability to decode these facial expressions. The ability to decode facial expressions, specifically fear detection, has been shown to be a potent predictor of prosocial behavior in humans.[45] Further, automatic mimicry of facial expressions is correlated with research subjects' empathy scores.[46]

P: posture

Posture is a powerful signal of positive and negative emotions, independent of facial expressions.[47] The embodiment literature has shown that briefly holding dominant postures can affect neuroendocrine levels associated with status and stress,[4] and they can make people exhibiting high status postures appear physically larger.[48] Subtle differences in clinician posture have significant effects on ratings of empathy, and so it is important that clinician posture convey mutual respect and openness.[49] For example, sitting down with patients at eye level conveys both interest in and time for patients.

A: affect

Although most nonverbal communication is subconscious, conscious assessment of patients' affective states is also crucial for improved patient satisfaction, increased adherence, and lower anxiety.[50] Making a mental note of your patient's affect helps to achieve understanding, building on the brain's inherent capacity for emotional understanding. A distinct brain network for affective perception has been recorded in numerous studies.[51] Gaining another's perspective is not simple: It is both cognitively demanding[52] and moderated by mood.[53] Further, when people engage in perspective taking, they are egocentrically biased, moving from their own mental state to that of the other, which suggests that "perspective getting," or *asking* another about her emotional state, is an effective strategy to combat this systematic error.[54]

T: tone of voice

Clinician history of malpractice litigation is correlated with the clinician's tone of voice; independent raters were able to determine whether or not a clinician had been sued by listening to content-filtered audio tapes of their interactions.[5] Dominant tones were correlated with patients filing lawsuits, whereas tones conveying warmth and anxiety about a patient's condition were correlated with no litigation history, suggesting that modulating voice tone has significant consequences.

H: hearing the whole patient

In addition to appreciating nonverbal signals and naming patients' emotions, these expressions must be contextualized. Clinicians can hear the "whole patient" by placing the nonverbal signals into the context of the patient's narrative and social world, and not focusing exclusively on body parts and physiological functions. An fMRI study recording brain activity during verbal communication found that the speaker's activity was spatially and temporally coupled with the listener's activity, but that this coupling vanishes when participants fail to fully comprehend one another.[55]

Y: your response

Clinicians' curiosity about their own reactions enables them to disengage from negative spirals of anger, frustration, and detachment. This process is made possible by the anterior cingulate cortex, which translates signals from amygdala and insula to the cognitive centers in the prefrontal cortex.[51] This is essential in working within difficult patient encounters where the clinician's physiological response may be the first signal to "proceed with caution." Unreflective responses in emotionally charged situations are often implicated in malpractice claims.[28]

Benefits of Empathy in Clinical Encounters

When clinicians succeed at nonverbal communication, we call them empathic. Empathy is essential for clinicians to communicate caring and create a positive patient experience. Nonverbal communication has been shown to play a significant role in judgments of clinician empathy,[56] accounting for two-thirds of the variance of coder ratings.[56,57] Clinicians' detection and exploration of their responses to unexpressed patient emotions has also been demonstrated as the truest sign of clinician empathy.[58] Finally, clinicians' ability to receive and exhibit nonverbal communication determines patients' emotional experience of the patient–clinician relationship.[59,60]

Poor communication skills, on the other hand, contribute to dehumanization, which has become a major concern in medical and surgical practices.[61] Poor decoding of nonverbal emotional expressions is intricately linked to many of the causes of dehumanization. These include diminishing the individual identity of patients (deindividuating practices), thinking of patients as body parts and mechanical systems (mechanization), empathy reduction, and moral disengagement.[61]

Improved patient satisfaction and avoiding malpractice claims are not the only benefits of enhanced clinician nonverbal communication. Increased clinician empathy has been reported to improve patient health outcomes[62] in a variety of medical specialties.[63] Practicing nonverbal communication skills in particular correlates with better health outcomes, including improved hemoglobin A1C levels, systolic blood pressure, fewer days lost from work, and fewer functional limitations.[63–67]

Challenges to Empathy

Despite evidence that perceiving the distress of others can lead to helping behaviors that also relieve distress in the observer,[68] empathic clinicians who are confronted with overwhelming degrees of pain and suffering may also experience significant personal distress. High emotional arousal may interfere with one's ability to help effectively.[69] It is well documented that empathy declines in medical trainees,[70] and some have argued that trainees' blunted empathy is an adaptation to highly stressful environments.[71] For these reasons, empathy training should include training in self-awareness and emotion self-management skills, such as diaphragmatic breathing

exercises or mindfulness training, to manage high emotional arousal.[7]

The risks of empathy can be further mitigated with deeper understanding of the concept and standardization of training. Empathy is a broad capacity, and two aspects must be considered separately: affective and cognitive empathy.[72] Affective empathy refers to the emotional resonance, or "feeling with" aspect of empathy, including sympathy and emotional contagion, which may lead to overwhelming emotions for which untrained clinicians may be unprepared to manage. Cognitive empathy refers to the "perspective taking" aspect of empathy, the process of rationally understanding the contextual aspects of another person's experience and responding with caring behaviors. Cognitive empathy, the ability to gain an understanding for what another is feeling, is dissociable from forms of affective empathy like emotional contagion. Most of the pitfalls of empathy appear to be due to affective empathy looming too large in decision making, while cognitive empathy is underused. For this reason, we advocate distinguishing between affective and cognitive empathy. We hope that the E.M.P.A.T.H.Y. acronym can begin to address consistency in training by becoming a critical tool during education and assessment.

In Conclusion

The E.M.P.A.T.H.Y. acronym can be used to help clinicians remember the essential components of nonverbal communication. This acronym is a feature of an empathy training that improved patient perceptions of clinician empathy in a randomized controlled trial.[7] Clinicians' accurate detection of emotional cues from patients, self-awareness of their own emotional states, and management of their own reactions to patients have important consequences for health care. The vast literature on nonverbal behavior is too cumbersome to expect most clinicians to master, but essential components can be communicated with the E.M.P.A.T.H.Y. acronym.

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