Mirroring Each Other: Beyond AI's Capability

By Caitlin Miller

The use of Artificial Intelligence (AI) to improve patient care in physical therapy has enormous potential. AI may improve the efficiency and accuracy of diagnosis and prognosis while facilitating an evidence-based plan of care. If physical therapists utilize AI consistently and effectively, these positives may improve the standard of care across the profession. However, incorporating AI in patient care requires individuals to recognize that data used by AI reflects human bias.

Human Bias in AI

An example of human bias is the use of stereotypes; stereotypes enable us to process information quickly and categorize objects without becoming overwhelmed.[1] However, stereotypes are harmful when they are applied to groups of people, such as around race, age, or gender.[1] Stereotypes can lead to harmful beliefs—conscious or subconscious—about certain groups, and these beliefs can negatively impact patient care by affecting who researchers select to participate in studies, the health conditions that they prioritize, the interventions they investigate, and ultimately whether these interventions will be affordable or accessible for all people.

Some professionals fear that exclusively relying on AI would reinforce the results of research that reflect human bias and remove or diminish the humanistic dimensions of care. Research that uses AI may not accurately represent factors such as a patient's race, age, or gender, and could be lacking for certain health conditions. If practitioners allow this information to guide treatment at the expense of centering each patient's individual values, experiences, and needs, the humanistic aspect of care may be diminished.

To protect the role of humanism in physical therapist-patient relationships, the information AI provides within the context of research and clinical care ought to be approached thoughtfully and cautiously. This information ought to be used as *supportive* data, alongside evidence-based methods of clinician evaluation, as well as with consideration of the specific needs, experience, preferences, and expectations of our patients.

Humanistic Care: Mirroring

The humanistic dimension of care is demonstrated by physical therapists' ability to mirror our patients. Mirroring is a term to describe what happens when a person interacts with another person by actively listening, extending empathy, seeking to understand, and believing in the inherent value of the other person. Student physical therapists learn to make eye contact with patients, to sit close, without a computer screen between us, and to ask questions mindfully, listening attentively to their responses while maintaining awareness of each patient's demeanor and nonverbal communication.

Human beings have a profound capacity to connect with and understand each other, and this connection is the first step to mirroring. The second step occurs when a patient recognizes that a clinician has truly seen them by observing how the clinician listens, speaks to, and regards them. What is uniquely human about these exchanges is the capacity to connect with another person and reflect a level of witnessing and understanding back to them.

To effectively mirror our patients, physical therapists must regard each patient as an individual with a unique history and life experience, without allowing bias or assumption to diminish understanding. How a person experiences pain, grapples with physical limitations, grieves a life-altering diagnosis, values their work and social roles: each of these aspects of a person's life is important to acknowledge and honor.

Being Present

When physical therapists encounter a patient about whom we may possess bias related to their identity, it is even more important that the practitioner slow down, recognize the bias, and make concerted efforts to make clinical decisions based upon the individual's needs, goals, and expectations, as well as evidence-based clinical judgment, rather than preconceived notions based on erroneous stereotypes or assumptions. Practitioners can challenge biases by paying attention and recognizing when we are making assumptions based on past experiences or ideas, and redirect our perspectives and thoughts toward a place of humility and curiosity. To bring the uniquely human ability of mirroring each other to physical therapy, clinicians must be present with patients, and open to understanding and prioritizing the diverse array of possible experiences, needs, and expectations being presented to them.

The profession of physical therapy typically enables one-on-one time with patients, offering a unique opportunity for the relationship between patient and physical therapist to deepen. The guidance and collaboration between a physical therapist and patient can be transformative if practitioners are mindful of personal biases and assumptions, and center the patient's experience and needs while carefully incorporating information from AI to guide patient care.

Conclusion

Leveraging AI to improve patient care in physical therapy may lead to excellent outcomes, especially if physical therapists continue to prioritize understanding patients as individuals, as well as recognizing and challenging the inherent bias in the data used by AI. Clinicians using AI should mindfully consider how to

effectively and ethically integrate information that AI provides with the information the patient provides. Only the patient holds the wisdom of their life experience, needs, goals, and expectations. Incorporating the patient perspective, alongside AI-generated information as a complement to clinical judgment, into the care of each individual, is crucial to preserving humanism as central to the therapist-patient relationship.

AI Statement: I did not use AI in the writing of this personal narrative because I value my own process of writing and rewriting as I form and edit my work.

References

1.   Kahneman D. *Thinking, Fast and Slow.* Farrar, Straus and Giroux; 2011.

About the Author

Caitlin Miller, SPT is a first-year Doctor of Physical Therapy student at George Washington University. She graduated with the Class of 2017 from Georgetown University with a double major in Theology and Government. She relishes the joy of movement in her own life as a competitive ballroom dancer and instructor, and her passion is to support and guide her patients on their journey to achieve the movement goals that give meaning and joy to their lives.