

# Humanities Instruction in Physical Therapy Education to Cultivate Empathy, Recognize Implicit Bias, and Enhance Communication: A Case Series

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Students in health professions programs may have few experiences interacting with individuals with disabilities, which limits their understanding of the psychomotor, emotional, and/or cognitive behaviors experienced and associated with having a disability. Therefore, it is important to provide instructional experiences in health professions education to foster deeper understanding of the disability experience. The field of health humanities, with its broad variety (eg, narrative writing, film, theatre, visual art, anthropology, music), provides educators in health professions programs instructional opportunities to foster deeper understanding of the lived experiences of individuals with disabilities.<sup>1,2</sup> Examples of its use in physical therapy (PT) education have been demonstrated by work from the Humanities in Gross Anatomy Project, in which students expressed how the donor's gift personally influenced their professional growth and education.<sup>3</sup> In 2017, Courtney, O'Hearn, and Franck described how artist Frida Kahlo's art can increase physical therapists' understanding of a person's experience living with chronic pain.<sup>4</sup> Additionally, a study of one PT education program known to integrate humanities included encounters with real patients, caregivers, and family members as well as experiential learning and narrative writing in the curriculum.<sup>5,6</sup>

From a broad perspective, the humanities promote understanding of what it means to be human. More specifically, and for the purpose of this article's focus, the health humanities shall be defined to include the disciplines of art, drama, literature, film, music, philosophy, and history, as they can provide a pathway for understanding the lived human experience. For several decades, the established use of humanities within the curriculum of many medical schools has been documented. McNaughton described the value of humanities in the growth and formation of students and healthcare professionals as both instrumental and non-instrumental.<sup>7</sup> Instrumentally, they are a useful tool for understanding the lived experiences of others; at a non-instrumental level, they add value as a form of expression and understanding of oneself.<sup>7</sup> The dual importance of understanding lived experiences of individuals served by healthcare providers as well as oneself is critical for the professional development of student healthcare providers. An excellent example of this instrumental versus non-instrumental conceptualization occurred at the University of New South Wales in Sydney, Australia. Medical students learned to balance the importance of science and medicine with art through Workshops in Healing that emphasized understanding patients' and peer students'

stories and experiences in conjunction with their role as a healthcare professional.<sup>8</sup> The use of art, poetry, music, and literature promoted their understanding of the patients' lived experiences and renewed their choice and enthusiasm in becoming physicians.<sup>8</sup> Applying these types of humanities-based instructional opportunities into the physical therapy curriculum would also allow for instrumental and non-instrumental growth.

Prior to, and in some cases during, medical and health professions training, the use of humanities in instruction has played a role in the development of a student's attitude, values, ethicality, and professionalism.<sup>8-14</sup> In an invited commentary on the humanities in medical education, Dr. Arno K. Kumagai summarized, "...the arts and humanities beckon us to be aware of the fact that, in caring for other human beings during times of great vulnerability, we enter into a clearing, a sacred space in which people (including ourselves) change in fundamental and often permanent ways."<sup>15</sup> Specific findings from integration of the medical humanities into medical education include documented improvements in empathy and the building of therapeutic patient-provider relationships in physicians and students,<sup>16</sup> self-awareness in medical students,<sup>17</sup> perceptions of patients by physicians,<sup>18</sup> observation skills,<sup>19</sup> and reflection and empathy.<sup>18,20</sup>

From this foundation, expansion of the humanities into other health science curricula such as nursing and physical therapy led to the broadening of medical humanities to the more inclusive health humanities, which welcomes interdisciplinary perspectives and engagements, including those of patients and families.<sup>21,22</sup> Educational findings involving the integration of health humanities into disciplines outside of medicine are more limited. However, they

highlight advancement in observation skills,<sup>23</sup> interprofessional readiness, and nonverbal communication,<sup>24</sup> as well as enhancement of cultural competencies,<sup>25</sup> professionalism,<sup>26</sup> professional identity toward patient-centered care,<sup>27</sup> and bias recognition.<sup>28</sup> Additionally, the use of narrative writing for critical reflection in PT education and practice was found to advance the development of clinical expertise in PT students as well as in residents and PT practitioners.<sup>29</sup>

A statement by Daniel Goldberg argues that "any definition of health humanities cannot be limited to the field of medicine, medical care, or medical professions, and also ought to not have as its central goal the advancement of the practice and science of medicine. I also believe that our primary goal should be directed to health and human flourishing rather than to the delivery of healthcare."<sup>30</sup> As a field committed to promoting, maintaining, and restoring health through physical examination, patient education, intervention, rehabilitation, disease prevention and health promotion, physical therapy inherently aligns with "health and human flourishing."

Wisely recognizing this in June 2020, Blanton and colleagues discussed the role of humanities in physical therapy education and practice.<sup>6</sup> They explored the merit of engaging with humanities, and how humanities factor into physical therapists' identity formation, and consequently contribute to positive health outcomes for patients.<sup>6</sup>

## Three Health Humanities-Based Instructional Activities

In support of Blanton et al's discussion, the purpose of this case series is to encourage the uptake and use of humanities within physical therapy education and

practice by offering and explaining 3 health humanities-based instructional activities, including the educational outcomes that have been implemented into physical therapy education at 2 universities in the United States.

## Descriptions and Data Collection

The following teaching and learning activities were carried out at the University of the Incarnate Word and the Medical University of South Carolina; they illustrate the threading of humanities across physical therapy curricula. Detailed course objectives, learning activities, and assessments for these activities can be found online at <https://www.acapt.org/chep>. Although students benefit from a single teaching activity, best practice is to thread humanities instruction throughout the curriculum.<sup>6</sup> Multiple exposures to the humanities may have a larger and longer-lasting impact than singular, isolated activities.

Although related, empathy and sympathy differ in meaning. As defined by Hojat and colleagues, empathy is made up of cognitive and affective components.<sup>31</sup> Cognitive empathy allows one to be aware of and appreciate another person's internal experiences, while affective empathy is the capacity to join in the emotional experience.<sup>31</sup> Sympathy shares the affective component of empathy; however, it lacks the cognitive awareness by which one intellectually separates from the other person.<sup>31</sup> For healthcare professionals and students, the capacity to sympathize is thought to interfere with clinical neutrality, while empathy allows for a deeper understanding but also retains one's ability to remain objective in the face of clinical decisions.<sup>32</sup>

Empathy is an important component of both patient and provider well-being.<sup>33</sup> Research suggests that patients better adhere to treatment plans, report higher

satisfaction, and achieve better outcomes if their healthcare providers have empathy.<sup>33</sup> Empathic healthcare professionals are also more likely to be perceived by their patients as compassionate and are less likely to be sued for malpractice.<sup>34,35</sup> Unfortunately, students in healthcare professions often conclude their training with less empathy than when they begin because of demanding curricula and the mismatch between classroom and "real world" environments which evolves into personal dissatisfaction and erosion of empathy.<sup>36-41</sup> This degradation of empathy again supports the case to intentionally cultivate empathy in students' healthcare training.

Of note, empathy is not equivalent to an individual's lived experience; therefore, using the humanities to presume how an individual feels poses the risk of objectifying the individual, and does not generate true empathy.<sup>42</sup> The importance of authentic student reflection during and/or following the use of humanities instruction to support awareness of the individual's lived experience and emotions is key to empathy development.<sup>42</sup>

### 1. Using Cinema To Cultivate Empathy

Using film as a teaching modality creates unique opportunities for students to gain insights into the lived experience of disability. Cinema or film has a theoretical basis to support awareness of another person's lived experience and emotions through use of sight and sound, similar to the way healthcare professionals watch and listen to patients.<sup>43</sup> Teaching and learning activities using film are effective for cultivating empathy when they are directed by an instructor and used to facilitate reflection and discussion.<sup>44</sup> For example, an instructor may use the movie *Patch Adams*<sup>45</sup> to facilitate discussion about empathy and the patient-provider relationship in

general; the movie *Will*<sup>46</sup> might be used to stimulate discussion about a patient's experience with terminal cancer.<sup>47</sup>

When learning about patients with spinal cord injuries, students at the University of the Incarnate Word (UIW) watch the 1992 film *The Waterdance*.<sup>48</sup> Written by Neal Jimenez, who experienced paraplegia himself, this screenplay illustrates many of the psychosocial experiences associated with rehabilitation after a spinal cord injury.<sup>48</sup> During the movie, students complete a worksheet with questions to prompt their reflections on how each character might be feeling and how the environment, people, and situations in the movie contribute to those feelings. *The Waterdance* is particularly valuable because it portrays the intimate relationship between the main character, Joel (Eric Stoltz), and his partner, Anna (Helen Hunt).<sup>48</sup> Using Eric and Anna's relationship as a framework, students practice effectively giving patients permission to ask questions about sexuality and sexual function while maintaining the patient's dignity. Students develop emotional connections to the characters, sharing in their experiences of anger, sadness, loss, and eventual hope that emerge as the movie evolves.

The benefits of watching *The Waterdance* and reflecting on prompts in the worksheet arise during class discussion and in a patient/client management lab course where individuals with spinal cord injuries volunteer to be standardized patients. Situations in which the healthcare professionals in the movie created a negative experience for patients in the rehabilitation unit are easiest for students to identify in the class discussion. Students can also readily identify barriers to planning discharge from the facility because of limited family support. Discussing sexuality is less comfortable for the class, especially for students whose culture or families of origin do not openly discuss sex

or sexuality. After practicing communication about sexuality and disability, students report they were comfortable asking standardized patient volunteers about sex and sexuality when they worked together in the patient/client management lab course. More opportunities for students to understand patients' lived experiences with spinal cord injury are needed; however, students begin to understand how their own discomfort with discussing sexuality can be a barrier to demonstrating empathy during a crucial time in a patient's recovery.

## 2. Using Humanities To Recognize Implicit Bias

Despite the significance of empathy, all individuals carry implicit biases based on their political, social, cultural, and generational influences, as well as their experiences or lack of experiences.<sup>49,50</sup> Race and gender are commonly identified as types of implicit biases, but implicit bias can also be involved in the less-recognized concept of ableism. Following a spinal cord injury, Dr. Christina Crosby notes how society is designed for individuals without disabilities, which inherently excludes individuals with disabilities.<sup>51</sup> Words that create negative connotations also reveal the underlying implicit biases toward individuals with disabilities, such as *suffered* a heart attack, *victim* of a stroke, and *confined* to a wheelchair.<sup>8</sup> Unrecognized ableism bias not only contributes to societal mistreatment or discrimination, but it also results in shame, avoidance, secrecy, grief, and anger for individuals living with disabilities.<sup>11,12</sup> Examples from the literature speak to the harm induced by ableism involving individuals living with disabling conditions, such as chronic pain.<sup>52-54</sup> Because this pain is often invisible, it is commonly dismissed by healthcare professionals, family members, and coworkers; however, these individuals need to be believed and understood.<sup>52-54</sup> Empathic strategies have been found to placate ableist perspectives and promote

awareness of implicit biases.<sup>51</sup> Individuals with disabilities and chronic pain desire empathetic healthcare providers who share in mutual understanding,<sup>51,54</sup> underscoring the importance for healthcare professionals and students to cultivate empathy in order to maximize patient outcomes and satisfaction.

To facilitate students' understanding of the lived experience of patients with chronic pain and disability while identifying their own biases, faculty of UIW engaged PT students in an assignment that uses the arts. Students were instructed to find a piece of art created with the intention of reflecting the artist's own pain experience. The art could be in the visual, music, theater, or other mediums. It was thought that students would be more impacted by and interested in the art they chose if they were allowed to pursue the medium that interested them the most. Students shared their selected piece in an online discussion forum, provided information about their chosen piece, reflected about how they better empathized with people in pain or with disabilities as a result of viewing/listening to the art, and had thought-provoking conversations about the artworks with their peers to enrich the experience. In a cohort of 54 students, the discussion board totalled more than 500 comments—many more than were required by the instructions.

To evaluate any potential change in students' implicit bias levels as a result of the art and chronic-pain assignment, students completed Harvard's Project Implicit Association Test (IAT) assessing bias toward individuals with disabilities.<sup>49</sup> Measurements were taken before and after the activity. Many students saw their bias level shift toward being less ableist after the activity. The educational benefit of the activity was shown when using the art and IAT scores to frame conversation around how bias could negatively impact

consumers of healthcare. During class, students reflected on lessons learned from the assignment, whether the process changed their perspective about individuals with chronic pain, and how this perspective may influence their future interactions with patients in a clinical setting. Firmly entrenched in the expectation that they would be unbiased, students were often surprised by their initial results on the IAT. Some students experienced emotions like anger or disbelief and claimed the results were inaccurate. Most students, however, accepted the possibility that they had a bias and expressed an appreciation for how striving to understand the lived experience of a person with disabilities may help them to have less bias.

Faculty did not grade the assignment according to results of the IAT, as a grade may have facilitated a desire in the students to try to “cheat” on the bias assessment. The assignments, including art submission and IAT tests, were simply graded as complete or incomplete. It was thought that a different grading system might take away from the potential for affective growth if students were overly concerned about getting a specific grade. The assignment was also timed during a period of the semester when they were several weeks away from major assessments so that they would have the least amount of stress possible while thinking about their chosen piece of artwork.

### 3. Using Museum-Based Instruction To Enhance Communication

[Note: For an in-depth account of the course described below, see the article “*Eye Spy: Improving Nonverbal Communication and Interprofessional Learning Perceptions in Health Science Students*” in this issue.]

Because effective communication is a hallmark of providing compassionate and safe patient care,<sup>55,56</sup> the Gibbes Museum of Art, museum educators, and an

interprofessional group of faculty from the Medical University of South Carolina created and implemented an 8-session elective course targeting development of students' communication skills, including nonverbal, written, and verbal exchanges.<sup>57</sup> The instructional underpinnings of this course were derived from Yenawine and Housen's visual thinking strategies (VTS) work.<sup>58</sup> The pedagogy of VTS revolves around 3 central questions for the observer: 1) What is going on in this piece?; 2) What do you see that makes you say that?; and 3) What more can we find?<sup>58</sup>

By applying the principles of VTS to appropriate pieces of art, faculty and museum educators developed interactive questions and activities about a variety of health science topics to improve communication skills in students.<sup>58</sup> For example, images created by Leo Twiggs and Lonnie Holley are often used to spark important, although difficult, conversations around race and discrimination. These African-American artists are included because of their experiences growing up and living in the South where racism was, and to some extent still is, tolerated. Leo Twiggs<sup>59</sup> constructs enduring works that explore the human condition of southern African Americans, often following community tragedies. Artist Lonnie Holley<sup>60</sup> began working at the age of 5 and through struggle and necessity became a great collector of trash, which led to his practice of "improvisational creativity." His artistic curiosity and expression manifest in drawings, paintings, sculpture, photography, performance, and music.

For this course, educators use the 3 VTS questions in small and large group activities with no more than 10 students at a time. Focused activities were conducted to generate students' reflections connecting their experiences to patients' human conditions, promoting verbal and nonverbal communication and encouraging

perspective-taking through students' discussion centered about a variety of topics including race, gender, age, culture, historical context, and ableism. Two examples are:

1. Within the museum, individual students are asked to locate an artwork that best represents a memorable patient of the past year. Using VTS, each student verbally explains what is seen in the image that ties it to the identified patient. The act of the student reflecting and sharing the description of the experience prompted other observations, responses, and discussion from members of the group, which led to richer conversations and broader perspective-taking. For example, a student located a painting of an elderly woman with a walking cane and used it to connect to a previous patient with an ankle injury, which in turn reminded another student of his grandmother who walked with a cane following a stroke. In addition, his grandmother had served as his primary childhood caregiver, which promoted and led to a rich discussion of a life well-lived with purpose in spite of disability.

2. In a group of 10, students observationally explore a painting with an obvious message of gender inequity in girls and women. For several rounds, each student is asked to provide various nouns, adjectives, and verbs describing the painting. These words are then used individually and collectively by the group to create insightful poems.

Outcomes related to nonverbal and verbal communication skills were collected and analyzed using quantitative and qualitative methods. Using video recordings of sessions, the Nonverbal Checklist was scored by students and museum educators who conducted the VTS experience. Statistically significant improvements in nonverbal communication were demonstrated by students.<sup>24</sup> Oral and written

communication is currently being analyzed by qualitative methods to highlight improvements in description and identification of humanistic and empathetic themes following students' observation of an image of a child with disabilities and a woman sitting on a bench. A few pre and post-test examples from qualitative raw data include:

- *What is going on in this image?:* “Smoking break & child is playing video game” to “Hospital park or playground & has a distant relative who is visiting him for the moment; there is quite a large distance between the two on the bench”
- *Who is the image about?:* “The child is framed more carefully than the woman” to “Maybe something is wrong w/ the woman’s left arm—looks bruised. The kid appears to have a spinal deformity, & I can’t tell if his legs/feet have been injured, or if those sock/brace things are something he wears all the time. Either way I could imagine the whole family going in for PT together.”
- *How does the image make you feel?:*
  - “It makes me feel sad for the son even though he doesn’t look happy or angry at the mom for not paying attention to her son” to “This photography makes me want to know when in their past this disconnect began, and why. I want interaction, not an uncomfortable quiet. This photo leaves me longing for more of their story so that I can understand what I am now observing.”
  - “Unsettled. Uneasy. Concerned. Unnerving. Angry. Frustrated. Disappointed. Sad.” to “Because of

this disconnect of being present, the photo makes me feel slightly sad & distraught, yet joyous that he is able to play & be outside.”

- “Neutral, but curious for more details: like what happened to the kid’s legs?” to “It’s a sunny day out, but they’re just sitting. Mom looks stressed—she’s smoking. It makes me feel a little heavy.”

## Discussion

The purpose of this article was to present 3 cases that demonstrate how humanities can be blended into physical therapy coursework to help students develop empathy, recognize and reduce implicit bias, and enhance professional communication. Each case study described in this paper utilized a form of art to create opportunities for students to listen and observe another person’s story. The differences in types of art, population of interest, and desired outcomes among the 3 learning activities demonstrate the versatility of humanities-based instruction.

The authors do not have backgrounds in humanities education and recognize that this is true for most PT educators. In an effort to support the uptake of such activities in other physical therapy programs, the Consortium for the Humanities, Ethics, and Professionalism (CHEP) within the American Council of Academic Physical Therapy (ACAPT) has a [repository](#) where more resources for incorporating humanities into physical therapy and physical therapy assistant programs can be found.<sup>61</sup>

## Conclusion

Physical therapists address impairments, functional limitations, and participation restrictions experienced by individuals with disabilities who likely have a different lived experience. Empathy is essential to understanding those lived experiences; the humanities are a conduit for accessing empathy and associated implicit bias, and communication skills. As curricular models in physical therapy education evolve, the importance of humanities-based instruction to develop empathetic physical therapists should be considered and implemented, as it will not only benefit future patients, but the field of physical therapy as well.

A note from the authors: Do you have a class activity using the humanities that you would like to share? Visit the Resources section of the [Consortium for the Humanities, Ethics, and Professionalism website](#) for more information.

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Nathan Brown, PT, DPT is an Associate Professor and Director of Clinical Education at the University of the Incarnate Word's School of Physical Therapy in San Antonio, Texas. He received his BS in Composite Science and Secondary Teaching Certification from Texas A&M International University in 2006 and his Doctor of Physical Therapy from Texas Woman's University in 2010. After graduating, he primarily worked in the areas of orthopedics, sports, and acute care for over six years. He is a Board-Certified Clinical Specialist in Geriatrics and continues to treat patients in an outpatient, pro bono setting. He is an active researcher in the areas of early professional development, humanities in DPT education, rhythmic training, and clinical reasoning. Dr. Brown currently serves as Vice Chair of the Consortium for the Humanities, Ethics, and Professionalism within the American Council of Academic Physical Therapy.



Cynthia Dodds, PT, PhD is an Associate Professor at the Medical University of South Carolina. She is a Board-Certified Clinical Specialist in Pediatric Physical Therapy. She regularly implements humanities instructional strategies into physical therapy education to enhance the affective development of students. Her current project, entitled “Eye Spy for Development of Affective Qualities in Interprofessional Healthcare Students,” has South Carolina Clinical and Translational Research Team Science funding to examine students’ communication and observation skills within a museum setting.