

Connecting Patient-Centered Care Research into Athletic Training Clinical Practice

Lindsey E. Eberman, PhD, LAT, ATC*; Zachary K. Winkelmann, PhD, SCAT, ATC, CHSE‡
*Indiana State University, Terre Haute, IN; ‡University of South Carolina, Columbia, SC

Correspondence

Dr. Lindsey E. Eberman, 567 N 5th St, Terre Haute, IN 47809.

Email: Lindsey.Eberman@indstate.edu

Twitter: @isuathltrain

Full Citation

Eberman LE, Winkelmann ZK. Connecting patient-centered care research into athletic training clinical practice. *Clin Pract Athl Train.* 2023;6(2): 1-14. <https://doi.org/10.31622/2023/0006.02.1>.

EDITORIAL

The Prioritized Research Agenda for the Athletic Training Profession identified five research priorities for athletic training, using a multi-layered approach, including a cross-sectional survey to ensure athletic trainers endorsed the research priorities and initiatives that would be addressed through a comprehensive research agenda.¹ Overwhelmingly, respondents indicated they agreed or strongly agreed (n=3590/3963, 90.6%) that examining the extent to which athletic trainers provide patient-centered care would benefit the profession.¹ However, the concept of patient-centered care emerged decades ago in 1986 from Harvey and Jean Picker.² Jean was experiencing long-term health issues and recognized that the care was innovative and evidence-based. Still, it lacked humanism and was not responsive to the sensitive needs of the patients themselves and their support system.² The Pickers developed a non-profit organization for developing patient-centered care, spreading their eight principles² to the United States in 1994:

- Respect for patients' values, preferences, and expressed needs
- Coordination and integration of care
- Information, communication, and education
- Physical comfort
- Emotional support and alleviation of fear and anxiety
- Involvement of family and friends
- Continuity and transition
- Access to care

Since then, the profession of athlete training has been slow to adopt the concept. The post-professional educational competencies embodied patient-centered care since 2013,³ but professional education did not specifically state “patient-centered care” until the CAATE 2020 Professional Standards,⁴ leaving decades of athletic trainers with a gap in their training.

Thus, our research team has spent the last several years engaged in studies evaluating the extent to which athletic trainers offer patient-centered care. The data in Table 1⁵⁻²⁶ provides an overview of our collaborations, including those where we served as first or senior authors with many post-professional graduate students and colleagues across the nation. The data suggest that most student-athletes have high levels of health literacy and believe their athletic trainers are using patient-centered principles during care delivery. However, student-athletes and athletic trainers differ somewhat in how they define patient-centered care and place value on that care. The concepts of “best” and “individualized” care emerge from

student-athletes when asked to describe patient-centered care, while athletic trainers value patient preferences and respect. Specifically, athletic trainers express a desire to respect a patient's identity during care, acknowledging that marginalized populations like those with minoritized gender identities, races, ethnicities, religions, sexual orientations, and abilities should be acknowledged and supported. Although there is a misconception that patient-centered care is only for these minoritized populations, patient-centered care is an individualized process that every person should have the opportunity to experience in healthcare.

Athletic trainers believe they are patient-centered and value the concept in their daily practice; however, as we know through the data, there seem to be marked discrepancies in the application of patient-centered care in practice. Our studies on the disablement model identified that athletic trainers expressly desire to provide whole-person patient care. Yet, they neither have the knowledge nor the skills to explore holistic care during a patient interaction. In essence, athletic trainers are in the range between the precontemplative stage and the preparation stage of change within the transtheoretical model of change,²⁷ whereby they have “bought in” to the concept but have not yet resolved their knowledge, practice, and confidence gaps and taken action. As the preparation of athletic trainers has evolved, concepts like the social determinants of health, health literacy, and disablement models have emerged, but many practicing athletic trainers trained over three years ago have knowledge, practice, and confidence gaps relative to patient-centered care.

Patient-centered care was often considered treating others the same way you wish to be treated – the mantra of being a good person or the age-old “golden rule.”²⁸ While fundamentally embracing respect, the concept often forgoes empathy for a patient's lived experiences. The dynamics of a person's biopsychosocial response to injury and illness must be considered beyond our own experiences, values, and biases, which may prohibit us from embracing the patient's wants and desires.²⁸ This begins with communication through history taking, patient-reported outcome measures, and interviewing, followed by respecting the response of someone being diagnosed with a new injury, their rehabilitation plan, and reintegration into activity or their termination of sport and physical activity. Thus, allowing the patient to lead the care guided by their healthcare team.

The foundation of patient-centered care is rooted in shared decision-making. The concepts we have studied over the past five years have highlighted that both sides of the table (patient and provider) believe in patient-centered care principles, want to do it, and believe it is helpful. But an expressed desire is not enough. We must resolve our knowledge, practice, and confidence gaps by engaging in ongoing education and professional development to embrace a culture that allows people to explore their patient-centeredness through skill development, learning about new cultures, and creating connections with support systems. Too often, we seek to blame others when a patient's case is not improving; introspective reflection is necessary to take responsibility for our contributions to the care. We challenge athletic trainers and other providers of athletic health care to embrace a ‘just culture’ that emphasizes shared accountability in our collaborative relationships with patients and their support systems.

Moving forward, athletic trainers should focus on connecting goal setting and communication by building more focused care plans. Athletic trainers should focus on micro-skills to develop rapport and trust. High-quality patient care focuses on collecting data and creating patient-centered versus clinician-centered goals (e.g., improving the ability to reach the top shelf vs. increasing the range of motion by 20 degrees). Shifting your practice to use patient-reported data can ultimately lead to these positive outcomes by collecting the data we need to know we are being patient-centered in our practice.

We can move from precontemplation/contemplation/preparation into action! This begins with challenging our own thinking and questioning our assumptions. Creating patient-centered interactions requires us to unlearn our habits of gathering only data that serves us as clinicians but fails to acknowledge the patient experience. Instead, the integration of a clinician-centered examination and patient-centered interviewing, followed by patient education that explores all intervention options, including the possibility of doing nothing, and describing the likely consequences for each option. Then, the patient should be given the time and space to make informed decisions about their interventions. In essence, the focus should be on the “Platinum Rule,” or treating others how they wish to be treated.

The current body of evidence regarding patient-centered care is detailed throughout Table 1 – integrate this evidence to create small changes while thinking big. We recommend exploring tools, scripts, and measures to guide this practice (Figure 1).^{1,5-26,29-31} Beyond this call to action for providers, we also call to action researchers in athletic health care to expand implementation science studies that evaluate effective strategies to resolve knowledge, practice, and confidence gaps in credentialed athletic trainers. A constructive collaboration between education, research, and clinical practice is essential to accomplish patient-centered care in athletic training.

Figure 1. Tools and Techniques to Improve Patient-Centered Care^{8,10-14,25,26,29-31}

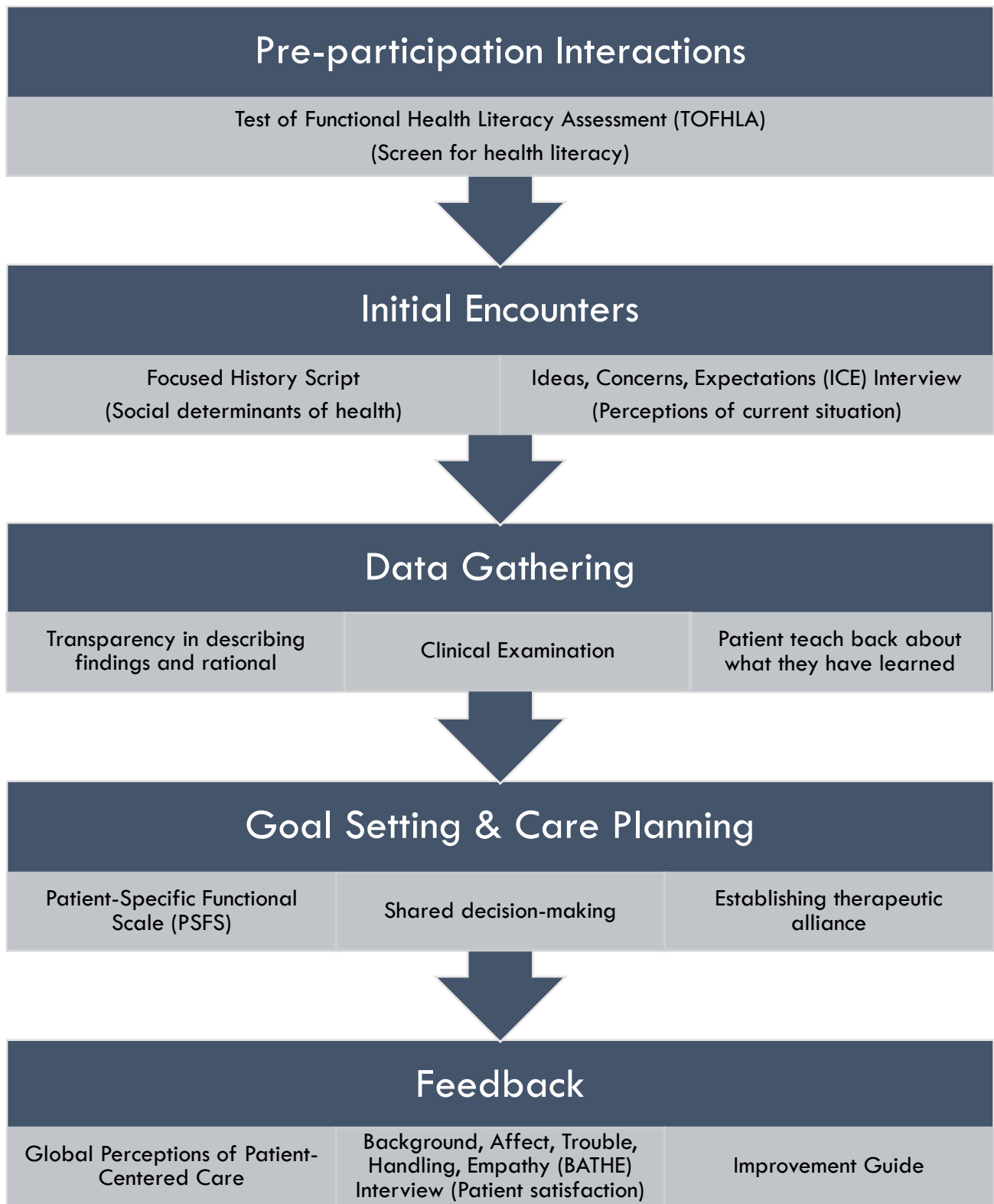


Table 1. Contemporary Evidence for the Delivery of Patient-Centered Care in Athletic Training

Study	Purpose	Key Findings
Respect for patient's values, preferences, and expressed needs.		
Eberman, et al. (2021) ⁷	To gain more in-depth information about athletic trainers' knowledge and experiences regarding the health care needs of transgender student-athletes.	Participants described knowledge deficiencies in themselves, health care providers within their units, and providers able to provide safe transition care. The athletic trainers demonstrated misconceptions when defining <i>transgender</i> and <i>transitioning</i> and describing how the body responds to hormone replacement therapy. They expressed concern for the mental health and wellness, self-image, and potential cost of transgender health care for transgender student-athletes. However, participants also described efforts to create safety within their units by validating transgender patients, instilling trust, adjusting the physical environment, and engaging in professional development to improve their knowledge.
Eberman, et al. (2023) ⁶	To explore primary care sports medicine physicians' comfort, competence, education, and scope of training in caring for transgender and gender nonconforming patients/athletes.	Previous care relationships with transgender and gender nonconforming patients/athletes strongly influence the comfort and perceived competence of primary care sports medicine physicians. Training from unbiased peer-reviewed data sources is critical to improving care for transgender and gender-nonconforming patients/athletes.
Schulman, et al. (2022) ¹⁵	To assess how a curriculum, including a standardized patient encounter, influenced attitudes and skills in working with sexual health and gender minorities.	The curriculum and standardized patient encounters influenced knowledge, attitudes, and comfort when working with gender minorities and screening for sexual health.
Shaughnessy et al. (2021) ¹⁶	To explore the education, comfort, and experience of professional athletic training students and program directors	Few students reportedly practice patient-centered care during clinical education. Both groups perceived deficiencies in competence related to

	on patient-centered care and transgender patient care.	transgender patient care. We suggest program directors integrate transgender health care into their curriculum and seek professional development to create meaningful educational experiences.
Walen et al. (2020) ¹⁸	To measure athletic trainers' (1) perceived definition of transgender, (2) comfort and competence working with transgender student-athletes, (3) sources of education, (4) perceived legal concerns, and (5) perception of competitive advantage.	Although collegiate athletic trainers generally felt competent in treating transgender patients, they did not feel capable of addressing specific aspects of transgender patients' healthcare needs. Regardless of the resulting perceived unfair advantage, athletic trainers must know the regulations and therapeutic effects associated with hormone-related therapy for transgender student-athletes.
Coordination and integration of care		
Torres, et al. (2023) ²⁶	To explore the lived experiences of college student-athletes and the development of the therapeutic alliance with athletic trainers.	We identified three domains regarding collegiate student-athletes' perceptions of the athletic trainers' mindset, behaviors, and actions that aided in developing their therapeutic alliance: empowerment, transparency, and intentionality. Efforts by the AT that allowed the patient to feel empowered during their care included shared decision-making, clinician flexibility, and education for comprehension. During the
Mendoza, et al. (2023) ¹⁰	To explore the degree to which secondary school athletic trainers perceive they are integrating the principles of patient-centered care and the biopsychosocial model in their practice.	Secondary school athletic trainers perceive they effectively integrate the principles of patient-centered care and the biopsychosocial model of health into their practice.
Redinger, et al. (2021) ¹³	To identify collegiate student-athletes' definitions of patient-centered care and measure their perceived level of patient-centered care from an athletic trainer.	The qualitative analysis revealed 13 topics, the most used being individual, priority, and best. Other issues needed to be more consistent with how the medical community has defined patient-centered care. On the Global Perceptions of Athletic Trainer patient-centered care tool, the participants strongly agreed with 12 of the 15 statements.

		Participants said that the athletic trainer was completely (mode = 4) patient-centered for all dimensions during their most recent encounter with the Patient Perception of Patient-Centeredness instrument. However, patient-centered care behaviors defined by the medical community may not be directly expressed according to collegiate student-athletes.
Wilson, et al. (2022) ¹⁹	To determine how athletic trainers place importance on patient-centered care principles and examine the context of their viewpoints.	Overall, athletic trainers value patient's preferences and respect. However, a need for more importance was identified for incorporating the disablement model, a core competency adopted by the athletic training profession.
Information, communication, and education		
Niles et al. (2022) ¹²	To assess collegiate student-athletes digital health literacy and musculoskeletal health literacy levels.	Most student-athletes possess adequate digital health literacy and musculoskeletal health literacy. The findings directly impact patient education as student-athletes use their phones to access health-related information they feel comfortable with. Still, they may need to find out if the source is trustworthy.
Roberts et al. (2022) ¹⁴	To investigate the health literacy levels of collegiate student-athletes	All participants displayed adequate health literacy, regardless of race, using the Short Test of Functional Health Literacy Assessment.
Physical comfort		
Haffey, et al. (2023) ⁹	To investigate athletic trainers' recognition and use of disablement frameworks in current clinical practice	The first three domains were related to the application of disablement model frameworks: (1) patient-centered care, (2) limitations and impairments, and (3) environment and support. Participants described varying degrees of consciousness regarding these domains, including expressed desire, conscious incompetence, and unconscious incompetence. The fourth domain related to participants' exposure to disablement model

		frameworks through formal or informal experiences. We characterized the data using the competence hierarchy, whereby conscious competence was demonstrated when participants accurately acknowledged or implemented a domain related to the disablement model framework used. Findings suggest that athletic trainers demonstrate unconscious incompetence in using disablement frameworks in clinical practice.
Millet, et al. (2023) ¹¹	To examine athletic trainers' familiarity, knowledge, application, and implementation of the international classification of functioning, disability, and health framework	Familiarity, knowledge, application, and implementation deficits related to the international classification of functioning, disability, and health framework exist. Athletic trainers reported low implementation across all ICF categories.
<i>Emotional support and alleviation of fear and anxiety</i>		
Chandler, et al. (2022) ⁵	To examine collegiate athletic trainers' use of behavioral health screening tools	Approximately 49% of participants used behavioral health screening tools in their practice; the most used tools were PHQ-9 (56.6%) and GAD-7 (27.3%). Practice integration considerations and practice advancements occurred due to behavioral health screening.
Young, et al. (2022) ²³	To explore National Collegiate Athletic Association Division 1 student-athletes' experiences with mental health, access to and experience with mental health resources at their university.	Two domains: "increased expectations" and "resources and management" were identified. The participants shared balancing life as a college student, academic stressors, performance expectations, and a sport-first mindset they perceived from coaches and support staff. The participants discussed their experience with an internal support network of coaches, the athletic department, and sports psychology. Participants remarked on their external support network, which included their family, friends, and psychology services. The resources available at their

		institutions and the accessibility were perceived positively and negatively. Collegiate student-athletes described resources as helpful, whereas other participants described a lack of timeliness for appointments, lack of advertisement, incomprehension of counselors to athlete demands, and no sport-specific counseling as barriers.
<i>Involvement of family and friends</i>		
Stanton, et al. (2022) ¹⁷	To investigate the experiences of secondary school athletic trainers who provided care to patients who were non-native English speakers or communicated with their non-native English speaker support systems.	Four domains emerged from the data: (1) communication, (2) welcoming environment, (3) cultural agility, and (4) resourcefulness. Participants enhanced communication by relying on nonverbal communication, translated resources, and interpreters. The ATs discussed a difference in care delivery based on fluency. Respondents explained efforts to create a welcoming environment by speaking in the non-native English speaker's native language, increasing comfort, and serving as an advocate within the health care system. Acknowledging customs, demonstrating respect, and understanding potential fear, shame, or both associated with language barriers were discussed as ways to increase cultural agility. The ATs identified a need for more formal training, which increased their on-the-job training and health information technology use. Participants perceived spending increased amounts of initiation, effort, and time on adaptability while caring for and communicating with non-native English speakers.
Winkelmann, et al. (2023) ²⁴	To describe the perceptions and practices of family-centered care across secondary school athletic trainers	The total mean score for the currently practiced scale was significantly lower than the perceived need. All family-centered care subscales compared between current

		practice and perceived lack were very different, with each being of higher importance than current practice in athletic training. Data analysis revealed four themes related to enhancing family-centered care in secondary schools: limited education and resources, staffing and space concerns, non-technical skills, and social determinants of health.
Continuity and transition		
Giorgi, et al. (2023) ⁸	To validate a focused history script designed to facilitate social determinants of health conversations between clinicians and adolescents through the Delphi method.	After seven rounds of feedback from six individuals (1 clinician and five educators/researchers), the focused history script achieved content validity, with 100% of panelists agreeing on the final 40-item script. A concentrated history script for the social determinants of health was validated to aid conversations between healthcare providers and adolescent patients on factors affecting their lives, school, and play. Addressing social determinants of health with adolescent patients will improve cultural proficiency and family-centered care delivered by school healthcare professionals.
Moll et al. (Accepted)	To explore athletic training students' abilities to screen for factors via standardized patient encounters and to describe the screening experience for social determinants of health factors.	A focused history script increased the screening of social determinants of health factors but decreased the students' self-confidence. When students were not required to use the concentrated history script to screen for the social determinants of health, most athletic training students failed to elicit information about the social determinants of health factors or performed poorly during the screening. We identified a confidence gap for social determinants of health screening abilities, with athletic training students having a high self-confidence in their ability to

		screen compared to their actual performance.
Winkelmann, et al. (2022) ²¹	To determine whether infographics as a continuing professional development method changed patient-centered screening considerations and familiarities with the social determinants of health.	A significant change-score improvement was identified for the intervention group relative to providing whole-person health care and recognizing the social determinants of health. No statistical differences were noted for screening and practices between the groups. However, familiarity with screening for four social determinants of health areas improved for the intervention group, including access to primary care, poverty, environmental conditions, and social cohesion.
Access to care		
Winkelmann, et al. (2020) ²²	To investigate healthcare professionals' perceptions of and experiences with telemedicine.	The interviews described the clinicians as telemedicine adopters (n = 14) or nonadopters (n = 8). The adopters reported higher levels of agreement on the Theory of Planned Behavior and Technology Acceptance Model tool than nonadopters for all constructs. When comparing adoption status, we identified a significant difference with nonadopters reporting a low level of agreement for the subjective norm construct. The interviews revealed five domains: integration challenges, integration opportunities, collaborative practice, anticipatory socialization to future use, and benefits of integration. The participants indicated that integration challenges centered on “buy-in,” whereas opportunities aligned with the patient's condition and technology ease of use. They reflected that the telemedicine encounters required more preparation, allowing for cooperative behaviors between clinicians. The benefits of telemedicine included convenience and scheduling

		preferences that encouraged future use.
Winkelmann, et al. (2020) ²⁰	To investigate athletic training students' ability to transfer telemedicine skills confidently and accurately in a standardized patient encounter.	Exposure to telemedicine via a standardized patient encounter improved confidence in performing the tech-based evaluation. Athletic training students demonstrated communication/interpersonal skills and patient education well, yet needed to improve their data gathering and telemedicine skills. Overall, participants accurately diagnosed a musculoskeletal condition using telemedicine.

REFERENCES

1. Eberman LE, Walker SE, Floyd RT, et al. The prioritized research agenda for the athletic training profession: a report from the Strategic Alliance Research Agenda Task Force. *J Athl Train.* 2019;54(3):237-244. <https://doi.org/10.4085/1062-6050-374-18>.
2. Picker Institute Europe. <https://picker.org/who-we-are/our-history/>. Published 2023. Accessed August 28, 2023.
3. Commission on Accreditation of Athletic Training. Standards for the Accreditation of Post-Professional Athletic Training Degree Programs. In:2013. <https://caate.net/Programs/Post-Professional/Post-Professional-Program-Standards>.
4. Commission on Accreditation of Athletic Training. Standards and Procedures for Accreditation of Professional Programs in Athletic Training. In:2020. <https://caate.net/Programs/Professional/Professional-Program-Standards>
5. Chandler TB, Rivera MJ, Neil ER, Eberman LE. Collegiate Athletic Trainers' Use of Behavioral Health Screening Tools. *Int J Athl Ther Train.* 2023;28(4):205-208. <https://doi.org/10.1123/ijatt.2022-0026>.
6. Eberman LE, Winkelmann ZK, Crossway AK, et al. Sports Medicine Physicians Comfort and Competence in Caring for Transgender and Gender Nonconforming Patients and Athletes. *Clin J Sport Med.* 2023;33(1):33-44. <https://doi.org/10.1097/JSM.0000000000001067>.
7. Eberman LE, Winkelmann ZK, Nye EA, Walen DR, Granger KC, Walker SE. Providing Transgender Patient Care: Athletic Trainers' Compassion and Lack of Preparedness. *J Athl Train.* 2021;56(3):252-262. <https://doi.org/10.4085/1062-6050-0501.20>.
8. Giorgi EM, Drescher MJ, Winkelmann ZK, Eberman LE. Validation of a Script to Facilitate Social Determinant of Health Conversations with Adolescent Patients. *Int J Environ Res Public Health.* 2022;19(22):14810. <https://doi.org/10.3390/ijerph192214810>.
9. Haffey RT, Rivera MJ, Young JP, Winkelmann ZK, Eberman LE. Athletic Trainer's Varying Levels of Awareness and Use of Disablement Model Frameworks: A Qualitative Study. *Int J Environ Res Public Health.* 2023;20(5):4440. <https://doi.org/10.3390/ijerph20054440>.
10. Mendoza AM, Drescher MJ, Eberman LE. The Integration of Patient-Centered Care and the Biopsychosocial Model by Athletic Trainers in the Secondary School Setting. *Int J Environ Res Public Health.* 2023;20(8):5480. <https://doi.org/10.3390/ijerph20085480>.

11. Millet NJ, Snyder Valier AR, Eberman LE, Rivera MJ, Winkelmann ZK. The Knowledge and Use of the International Classification of Functioning, Disability and Health (ICF) Framework in Athletic Training. *Int J Environ Res Public Health*. 2023;20(7):5401. <https://doi.org/10.3390/ijerph20075401>.
12. Niles TR, Rivera MJ, Torres-McGehee T, Eberman LE, Winkelmann ZK. Digital and Musculoskeletal Health Literacy of Collegiate Student-Athletes. *Internet J Allied Health Sci Practice*. 2022;20(2):9. <https://doi.org/10.46743/1540-580X/2022.2119>.
13. Redinger AS, Winkelmann ZK, Eberman LE. Collegiate Student-Athletes' Perceptions of Patient-Centered Care Delivered by Athletic Trainers. *J Athl Train*. 2020;56(5):499-507. <https://doi.org/10.4085/130-20>.
14. Roberts JM, Rivera MJ, Winkelmann ZK, Eberman LE. Health Literacy Levels of Collegiate Student-Athletes. *Int J Athl Ther Train*. 2022;27(4):184-187. <https://doi.org/10.1123/ijatt.2021-0027>.
15. Schulman EH, Eberman LE, Crossway AK, et al. Integration of an Inclusive Health Care Curriculum for Sexual Health and Gender Minorities. *Athl Train Educ J*. 2022;17(4):251-261. <https://doi.org/10.4085/1947-380X-22-010>.
16. Shaughnessy GT, Crossway AK, Eberman LE, Rogers SM, Winkelmann ZK. Program Directors' and Athletic Training Students' Educational Experiences Regarding Patient-Centered Care and Transgender Patient Care. *Athl Train Educ J*. 2021;16(3):219-234. <https://doi.org/10.4085/1947-380X-21-32>.
17. Stanton BM, Rivera MJ, Winkelmann ZK, Eberman LE. Support Systems and Patient Care Delivery for Nonnative English-Speaking Patients: A Study of Secondary School Athletic Trainers. *J Athl Train*. 2021;57(2):148-157. <https://doi.org/10.4085/1062-6050-0181.21>.
18. Walen DR, Nye EA, Rogers SM, et al. Athletic trainers' competence, education, and perceptions regarding transgender student-athlete patient care. *J Athl Train*. 2020;55(11):1142-1152. <https://doi.org/10.4085/1062-6050-147-19>.
19. Wilson CJ, Eberman LE, Redinger AS, Neil ER, Winkelmann ZK. Athletic trainers' viewpoints of patient-centered care: Preliminary findings. *PLoS one*. 2022;17(9):e0274577. <https://doi.org/10.1371/journal.pone.0274577>.
20. Winkelmann Z, Eberman LE. The Confidence and Abilities to Assess a Simulated Patient Using Telemedicine. *Athl Train Educ J*. 2020;15(2):132-147. <https://doi.org/10.4085/1947-380X-62-19>.
21. Winkelmann ZK, Downs KC, Charles-Liscombe R, Eberman LE. Continuing Professional Development Using Infographics Improves the Familiarity of the Social Determinants of Health. *Athl Train Educ J*. 2022;17(4):283-292. <https://doi.org/10.4085/1947-380X-22-001>.
22. Winkelmann ZK, Eberman LE, Games KE. Telemedicine Experiences of Athletic Trainers and Orthopaedic Physicians for Patients With Musculoskeletal Conditions. *J Athl Train*. 2020;55(8):768-779. <https://doi.org/10.4085/1062-6050-388-19>.
23. Young RD, Neil ER, Eberman LE, Armstrong TA, Winkelmann ZK. Experiences of Current NCAA Division 1 Collegiate Student-Athletes with Mental Health Resources. *J Athl Train*. 2022. <https://doi.org/10.4085/1062-6050-0180.22>.
24. Winkelmann ZK, Uriegas NA, Mensch JM, Montgomery CE, Torres-McGehee TM. Practices and Perceptions of Family-Centered Care: A Cross-Sectional Survey of Secondary School Athletic Trainers. *Int J Environ Res Public Health*. 2023;20(6):4942. <https://doi.org/10.3390/ijerph20064942>.
25. Moll K EL, Picha K, Edler Nye JR, Uriegas N, Winkelmann ZK. Exploring the use of a Social Determinants of Health Focused History Script to Facilitate Patient Conversations. *Athl Train Educ J*.

26. Torres P SS, Young JP, Kiesel JD, Eberman LE, Rivera MJ. Therapeutic Alliance: Exploring Bonds, Goals, and Tasks From the Perspective of Collegiate Student-Athletes. *J Athl Train.* 2023;58(6S):S-33. <https://doi.org/10.4085/1938-162X-58.6s.S-1>.
27. Hashemzadeh M, Rahimi A, Zare-Farashbandi F, Alavi-Naeini AM, Daei A. Transtheoretical model of health behavioral change: A systematic review. *Iran J Nurs Midwifery Res.* 2019;24(2):83. https://doi.org/10.4103/ijnmr.IJNMR_94_17.
28. Chochinov HM. The Platinum Rule: A new standard for person-centered care. In. Vol 25: Mary Ann Liebert, Inc., publishers 140 Huguenot Street, 3rd Floor New ...; 2022:854-856.
29. Horn KK, Jennings S, Richardson G, Van Vliet D, Hefford C, Abbott JH. The patient-specific functional scale: psychometrics, clinimetrics, and application as a clinical outcome measure. *J Orthop Sports Phys.* 2012;42(1):30-42. <https://doi.org/10.2519/jospt.2012.3727>.
30. Picker Institute, Inc. *Patient-Centered Care Improvement Guide.* In:2008. http://www.hqontario.ca/Portals/0/modals/qi/en/processmap_pdfs/tools/patient-centered%20care%20improvement%20guide.pdf.
31. Stuart M, Lieberman J. *The fifteen minute hour: Efficient and effective patient-centered consultation skills.* CRC Press; 2018.