## Change Is Hard: Adopting a Disablement Model for Athletic Training

John T. Parsons, MS, ATC; Tamara C. Valovich McLeod, PhD, ATC, CSCS; Alison R. Snyder, PhD, ATC; Eric L. Sauers, PhD, ATC, CSCS

A. T. Still University, Mesa, AZ

re have heard skepticism from both our researcher and clinician colleagues about the value of and need for clinical outcomes assessment and evidence-based practice (EBP). Some clinicians think a move toward outcomes assessment and EBP is an admission that the current care provided by athletic trainers (ATs) is inadequate. Furthermore, some clinicians are naturally nervous that conducting outcomes research is too time consuming to be practical, too complicated to be done correctly, or both. Additionally, some scholars minimize the importance of both outcomes assessment and EBP by claiming they are just another form of research design or methods, no more or less important than any other form of research. We directly challenge all these notions and suggest that the benefits to both patient care and the standing of the athletic training profession that flow from engagement in clinical outcomes assessment and EBP by both clinicians and researchers far outweigh the concerns identified previously.

Ongoing improvement of patient care must be a central focus of all health professions and is a continuous effort toward a goal that is never truly achieved in an absolute sense. Suggesting that clinical outcomes assessment is no more or less important than other forms of research ignores the fact that providing services to our patients is the primary purpose of our profession. Therefore, efforts aimed at directly measuring and improving those services are of prima facie importance to athletic training as a profession and become the responsibility of all ATs, including clinicians, researchers, and educators. However, to put it even more bluntly, we have no choice. The health care system has decided for us that these are expectations for all contemporary health care professionals. And although we strongly disagree with all 3 opinions, the contention that clinical outcomes assessment and EBP are difficult, time consuming, and even passé is irrelevant.

What we propose is change, and change is hard, particularly in well-established institutions such as health professions and education programs. In the final report of its health care quality initiative, *Health Professions Education: A Bridge to Quality*,<sup>1</sup> the Institute of Medicine (IOM) argued that health professions education reform is necessary to enhance the quality of health care in our country. To meet the needs of the 21st-century health care system, the IOM recommended that all health professions adopt 5 core competencies (ie, provide patient-centered care, work in interdisciplinary teams, use EBP, apply quality improvement, use informatics). Achieving these core competencies will require revolutionary changes in the education and preparation of future health care professionals. However, the IOM recognized the complex nature of long-term changes and was being realistic in commenting that "reform of health professions education can be exceedingly slow and difficult to accomplish."<sup>1</sup> This is especially true when the reasons for reform are unclear. Through our 2-part series on using disablement models and clinical outcomes assessment to enable EBP,<sup>2,3</sup> we have tried to address the latter problem by demonstrating why disablement models are needed in the profession. However, the question left unanswered is significant: What is the effect on current practice and education?

## **DISABLEMENT MODELS**

A decision to rely on a disablement model as a framework for the clinical practice of athletic training represents a notable change for our profession; in response, ATs must be realistic. This is a practical concern and one that cannot be fully answered here. In fact, the question can never be fully answered with just theory and hypothetical situations. A complete answer requires a combination of good theory and the systematic and intentional application of disablement models to the practice and education of athletic training. Therefore, we present a brief clinical scenario that we think highlights the utility of disablement models to athletic training practice. It is through the examination of such clinical scenarios that our profession can collectively determine the applicability and relevance of the 2 contemporary disablement models to our profession.

Consider a throwing injury to a baseball pitcher, resulting in a partially torn ulnar collateral ligament of the elbow. Depending on the severity of the injury, course of treatment, and effectiveness of rehabilitation, there is a reasonable chance that this injury may have prolonged or permanent consequence to the athlete. The athlete might have lingering pain with throwing. Or the injury may prevent the athlete from throwing as hard as he did before the injury. Either consequence might be enough to produce a subtle decrease in his sport performance, a decrease that might be noticed by only the athlete and his coach. This subtle deficit, depending on his level of competition, may be significant enough to jeopardize his position on the team. However, the injury will most probably not limit his non-sport-related activities of daily living in any appreciable manner. Consequently, 2 questions emerge. The first is a reasonable and straightforward clinical question: Is the athlete in this scenario disabled and, if so, to what degree? Orthopaedic and musculoskeletal researchers are beginning to examine that question.<sup>4</sup> The second question, however, is a more fundamental philosophical question that, in reality, should be answered first: Short of catastrophic injury, can athletes *ever* be disabled?

It is easy for ATs to recognize the physical component of the injury portrayed in this scenario. It is also easy for ATs to perceive that the physical injury is "under control." A diagnosis was made, treatment was received, and rehabilitation was offered, with appropriate progression and an adequate result. From a physical standpoint, a decent argument may be made for at least a temporary or situational level of disability. In this scenario, physical disability in the athletic arena is more evident and consequential than in the rest of the athlete's life. We readily acknowledge that this is not disability in the same way or to the same extent that catastrophic injury and paralysis might produce disability, but, we assert, it is disability nevertheless. What is less obvious, however, are the psychosocial consequences of this injury. We are referring to those components of the disability phenomenon captured in the relational and social components of contemporary disablement models. These more subtle consequences may often fall outside the AT's focus of attention. Yet we suggest that if attention is regularly paid to these components, they may reveal surprising and unexpected levels of disability, especially in athletes whose injuries remove them from the social role (ie, "athlete") that has become the foundation of their personal identity.

According to most contemporary disablement models, disability is a highly subjective experience. The social and relational levels of these models move us beyond the physical and attempt to account for disability that arises from a person's inability to fulfill an expected social role or from social obstacles that arise in the wake of injury or illness (or a combination of these factors). A wheelchairbound person who is unable to access the second floor of a building because of a lack of elevators or ramps is a clear example. Perhaps less clear is the star high school athlete on a trajectory for a college athletic scholarship, whose injury robs him of that scholarship and, consequently, the opportunity to attend college. Disability is also found in attitudes toward an injured or ill person. If we take this contention seriously, it adds a new dimension to an unfortunately common situation in athletics, when an injured athlete is ridiculed or demeaned by a coach or ostracized by teammates in the wake of an injury.

The personal battle and identity crisis athletes experience in the wake of injury may be the most insidious problems. Anecdotally, we are aware of athletes who have struggled socially and academically after a significant sport injury that has removed them from participation. In one case, a head AT told us of a high school senior athlete at a prestigious school, with a promising future as a college football player, who suffered a lower extremity injury in a preseason football game. The injury was severe enough to keep him from competition until well into the season. In the interim, he struggled with his rehabilitation, his grades suffered, he became involved in a questionable social group, and he had his first run-in with the law. However, the situation completely reversed itself when he returned to competition late in the season. In another case, a physician colleague reported on an adolescent high school athlete who suffered a season-ending anterior cruciate ligament injury. Within a week, the physician was contacted by the athlete's mother expressing concern for her son, who had admitted to her that on the evening of the diagnosis, he got drunk for the first time.

We acknowledge these stories are anecdotal. However, disability can be formally measured. For example, healthrelated quality of life (HRQOL) is a construct purported to be capable of measuring disability. In fact, we are currently conducting research to better understand the effect of sport-related injury on adolescent HROOL.5 Early indications, however, suggest that existing scales are not sensitive enough to detect small but important changes in athletes with sport-related injury (eg, pain with full-effort throwing) that may significantly affect their perceived HRQOL. It might also be true, for example, that in the athlete, the threshold between injured and disabled is much less than we realize or would anticipate. However, in the current absence of formal measures, we suggest that the behavioral changes reported previously represent the unique markers of disablement in athletes. These behaviors both result from and contribute to obstruction in the athlete's normal and expected relational and social roles. In any case, we are quite sure of one thing: if ATs attend to only the physical, we will miss the broader lessons about injury and illness that disablement models have to offer.

As ATs, we must begin to talk, write, and carry out research about the applicability of these models to our practice. On this issue, the athletic training research community cannot be the sole arbiter. Instead, both academic and clinical voices must be heard. Unfortunately, the concern expressed by Hertel<sup>6</sup> in 2005 about the disconnection between clinical practice and research is still valid. However, in going forward, expecting clinicians to engage in clinical research is not only reasonable but, from an EBP perspective, it is a necessity! The clinical community must determine for itself the effect of disablement models on clinical practice.

## **PROFESSIONAL GOALS**

Beyond the use of disablement models, we also recognize a need to further justify the professional goals of an increased use of clinical outcomes assessment and EBP in clinical practice, another major focus of our 2-part discussion of disablement models.<sup>2,3</sup> It is safe enough to assume that enhanced teaching and improved research tools will flow from these efforts. We both welcome and celebrate this development. However, we also think it is novel and slightly more challenging to briefly explore the significant organizational and professional benefits that can emerge when a profession dedicates itself to these goals. We suggest that in addition to patient-care improvements, enhanced teaching, and improved research tools, a focus on clinical outcomes assessment and EBP can provide (1) important professional-level communication tools, (2) legislative and political leverage, and (3) enhanced professional stature.

The first benefit to be gained from engagement in clinical outcomes assessment and EBP is that the profession gains a new set of tools for communicating with a variety of stakeholder groups. Today's health care environment requires the health care professions to demonstrate their effectiveness to a variety of stakeholders, including patients, legislators, and peer health care professionals.7 In addition, these groups have key issues they want addressed by every health profession, including safety and efficacy, education and training, and long-term professional viability. Identifying effective communication strategies to address these groups and their concerns can be very difficult at the professional level. However, when ATs document the outcomes of athletic training interventions through consistent application of outcomes assessment techniques, the data provide us with a common language that is understood by all stakeholder groups and that resonates with many of their primary concerns. Further, the adoption of clinical outcomes assessment tools by clinicians creates a rich environment for collaboration with researchers for whom athletic training patients are study populations of interest.

The second dynamic is centered on the myriad of current legislative and political issues facing the profession, including nonrestrictive licensure, third-party reimbursement for athletic training services, and acceptance of athletic training as a high-quality allied health profession.<sup>2</sup> We believe that participation in EBP and demonstration of effective patient care has become an expected function of every legitimate health profession. However, beyond that, these practices can facilitate the achievement of political gains, both locally and nationally, by providing leverage in the form of successful clinical practices that demonstrate our value to our patients, the public, legislators, and the greater community of health care providers. In a world in which health care costs are ever increasing, increased scrutiny by payers is inevitable.<sup>8</sup> Without adequate clinical data and research demonstrating that athletic training services improve patient health and function, decrease patient symptoms, and improve patients' abilities in a costeffective manner, the chance of ATs' obtaining widespread third-party reimbursement is limited.<sup>6,9</sup>

The last benefit we foresee is the creation of a professionwide opportunity to enhance and promote a more positive reputation of athletic training for the public, our patients, and other health care providers. Although athletic training has been recognized as an allied health profession for more than 18 years, laypersons and other medical professionals still have misconceptions about who ATs are and what health care services ATs are prepared to provide. We believe strongly that one of the most important contributing factors to this ongoing problem is the absence of a single document that adequately summarizes the practice and treatment philosophies and basic clinical techniques of the athletic training profession. Such a document would be invaluable for supporting our arguments in a variety of arenas, including the legislative and provider environments. Furthermore, the creation of such a document would force a reflective process within the profession that would require a careful and thorough examination of what the profession is currently and what it wants or needs to be in the future to remain professionally viable and useful to our patients. To this end, we believe that clinical outcomes data are useful adjuncts to any efforts at characterizing or describing the profession. They do this by validating or rejecting the treatment philosophies and techniques currently used by the profession, suggesting areas of need in our patient populations, and providing us with some benchmark with which to evaluate our profession against others.

In closing, we acknowledge that change is hard. To make these difficult changes, we recognize that it is vital to understand the patient care reasons for engaging in clinical outcomes assessment and EBP. However, it is also important to understand the potential for secondary benefits to the profession from these efforts. The care of the patient should always be at the forefront of professional priorities; when that is the ultimate goal and primary emphasis of a profession, secondary professional benefits should naturally follow. In a climate in which we are necessarily focused on the profession and legislative and reimbursement issues, it is important for ATs to recognize that our ability to provide effective health care services to the public will ultimately enable us to achieve the aforementioned professional efforts. Accepting and engaging in clinical outcomes assessment and EBP is a patientcentered means to the professional improvement ends.

## REFERENCES

- 1. Institute of Medicine. *Health Professions Education: A Bridge to Quality*. Washington, DC: Institute of Medicine; 2003.
- Snyder AR, Parsons JT, Valovich McLeod TC, Bay RC, Michener LA, Sauers EL. Using disablement models and clinical outcomes assessment to enable evidence-based athletic training practice, part I: disablement models. J Athl Train. 2008;43(4):428–436.
- 3. Valovich McLeod TC, Snyder AR, Parsons JT, Sauers EL. Using disablement models and clinical outcomes assessment to enable evidence-based athletic training practice, part II: clinical outcomes assessment. *J Athl Train.* 2008;43(4):437–445.
- Gansneder BM, Wilson RW. Measures of functional limitation as predictors of disablement in athletes with acute ankle sprains. *J Orthop Sports Phys Ther.* 2000;30(9):528–535.
- Valovich McLeod TC, Bay RC, Teeters JC, Parsons JT, Sauers EL, Snyder AR. Health-related quality of life is affected by recent injury in adolescent [abstract]. J Athl Train. 2008;43(suppl 3):S-92.
- 6. Hertel J. Research training for clinicians: the crucial link between evidence-based practice and third-party reimbursement. *J Athl Train*. 2005;40(2):69–70.
- 7. Downar C, O'Neil EH, Hough HJ. *Profiling the Professions: A Model for Evaluating Emerging Health Professions*. San Francisco, CA: The Center for the Health Professions; 2001.
- Deyo RA. Using outcomes to improve quality of research and quality of care. J Am Board Fam Pract. 1998;11(6):465–473.
- Binkley J. Measurement of functional status, progress and outcome in orthopaedic clinical practice. Orthop Phys Ther Pract. 1999;11:14–21.

John T. Parsons, MS, ATC; Tamara C. Valovich McLeod, PhD, ATC, CSCS; Alison R. Snyder, PhD, ATC; and Eric L. Sauers, PhD, ATC, CSCS, contributed to conception and design; analysis and interpretation of the data; and drafting, critical revision, and final approval of the article. Address correspondence to John T. Parsons, MS, ATC, Athletic Training Program, Arizona School of Health Sciences, A.T. Still University, Mesa, AZ 85206. Address e-mail to jparsons@atsu.edu.