In previous editorials, we have highlighted the role of the body of knowledge that makes up a profession. This body of knowledge is secured through the balanced relationship among clinical practice, research, and education. Each discipline fosters further development within the others, and it is critically important that there is harmony among all three. Evidence-based practice has emerged as the means by which clinical practice and scholarship are integrated into clinical decision-making. Based on one’s clinical experience, incorporated with the best available research evidence and the preferences of the patient, an evidence-based practitioner can enhance his or her clinical decisions. Much of what we are working toward in the athletic training profession is geared toward helping our practicing members enrich their clinical decisions with these principles. However, there are challenges to the advancement of evidence-based practice. One of the major challenges is the lack of substantial and conclusive evidence to guide clinical decisions within the domains of our body of knowledge. How do we engage in evidence-based practice if the evidence is inconclusive or lacking? The purpose of this editorial is to discuss a pathway in our profession that may allow us to bridge the gap between where we are now and where we can be in the evidence-based practice landscape.

The steps involved with evidence-based practice include (1) formulating a well-developed clinical question, (2) searching the available literature for potential sources of evidence to answer the question, (3) critically appraising the evidence when it has been chosen, (4) applying the evidence to a clinical decision based on the answer to the question, and (5) lastly, assessing the final evidence-based decision made. This five-step approach is considered the standard method by which evidence-based practice is conducted. However, a criticism of this approach is that, while clinical expertise should be an apparent tool in the decision-making process, it seems the only sources of evidence that can be used to answer our clinical questions are from external sources. If we can only rely on external sources of evidence to answer our clinical questions, what is the point of all of our professional training and clinical education?

A group of international medical educators from multiple institutions came up with an insightful solution to this issue. In teaching students to work through the five evidence-based practice steps described above, they added an additional step. Upon formulating a clinical question (step 1), these educators introduced a new step to follow—answering the question with what they called internal evidence. Based on the students’ training (foundational knowledge including anatomy, physiology, and pathology, combined with their professional coursework and clinical experiences), they worked toward developing an answer to the question. Internal evidence is synonymous with clinical expertise. Then, after documenting the answer from their internal evidence, the students went on to conduct the

Evidence-Based Practice or Practice-Based Evidence: What’s in a Name?

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next evidence-based practice steps of searching for and appraising the external evidence. This process allowed the students to: (1) confirm their internal evidence answer with external sources and integrate them into their clinical decisions, (2) refine their answer with external evidence if their internal evidence was insufficient, or (3) try out their internal evidence answer if there was no consistent external evidence available. By following this course, clinical expertise (internal evidence) was more readily incorporated into the evidence-based practice process. We believe this is a very appropriate model for evidence-based practice in athletic training.

Now that evidence-based practice competencies have been included in the current standards of athletic training education, providing meaningful opportunities to use evidence-based practice principles in clinical education is paramount. Developing a spirit of inquiry about the best available external evidence is essential; however, time constraints on athletic trainers, lack of mentorship in evidence-based practice, and the limited availability of sources of external evidence present some major barriers for its acceptance as part of the necessary skill set for making clinical decisions.8–11 Additionally, for many of the assessment and intervention techniques that athletic trainers use, high-quality sources of external evidence are not yet available. This unavailability actually reinforces the resistance against evidence-based practice gaining traction for inclusion in the necessary skill set. When external evidence isn’t available, athletic trainers have to rely on their clinical expertise (internal evidence) and some trial and error in their decisions. In fact, since its inception, our professional body of knowledge has primarily been shaped and refined through clinical practice. Perhaps then, not only do we need a model for evidence-based practice, but we need to systematically begin to capture the efficacy of our clinical decisions based solely on internal evidence. We need to enhance our ability to capture practice-based evidence, disseminate our results, and create meaningful sources of external evidence based on athletic training clinical practices.

Practice-based research networks (PBRNs) have been developed to bridge the gap in clinical decision-making that exists between the available external evidence and internal evidence. These networks are partnerships of researchers and clinicians who work with patient populations to clinically implement the findings from research studies.13 The goal is to determine whether the research translates well to actual clinical practice.12,13 Within these PBRNs, clinicians gather information from their patients, describe the decisions they make regarding assessment and intervention strategies, and document the outcomes of their clinical decisions. By doing so, patterns can be evaluated about the efficacy of evidence-based clinical strategies in the true clinical environment.

The PBRN model is described as the critical step in the process of translating research to clinical practice. While PBRNs represent a group of clinicians and researchers working together, this process can take place within an individual case. In a previous editorial, we described the symbiotic nature of exploration and validation case studies.14 Validation case studies allow clinicians to report on the effectiveness of evidence derived from research and put into clinical practice.14 This is akin to the goal of the PBRN model. In these case studies, a clinician might implement a particular protocol for rehabilitation based on the evidence from a well-designed randomized clinical trial (RCT). In a clinical trial, there is a great deal of control to ensure that validity is increased and sources of bias are reduced. However, when the protocol is then put into the hands of a clinician with a new patient from the target population, understanding whether the outcomes in the patient are similar to those from the RCT findings is vital. If similar, this would further validate the usefulness (relevance and validity) of the RCT findings as a strong external evidence source. If different, this also provides the opportunity to assess the reasons for variances. Perhaps patient compliance was an issue, the protocol was too difficult to implement, or the expertise of the clinician was insufficient. The validation case study would then serve as a documented source of evidence-based practice—practices derived from the best available research evidence assessed for their usefulness in the reality of clinical practice. If we find that the evidence works well in clinical practice, we can then integrate it into the professional education as a source of internal evidence to enhance current standards of practice.

In athletic training, we can also incorporate practice-based evidence as an essential step in validating our internal evidence used to make clinical decisions. Exploration case studies, in contrast to validation case studies, report novel or atypical presentations within athletic training clinical practice that may yield new insights into diagnostic, prognostic, therapeutic, or eti-