

Self-Report Functional-Outcome Measures in Athletic Therapy

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In the practice of evidence-based therapy, the goal of clinicians is to provide the most current and effective diagnostic and therapeutic procedures.

KEY POINTS

Self-report functional-outcome measures can be used in athletic therapy to enhance athlete's treatment by tracking functional changes.

Outcome measures that take less than 5 min to complete and score can be easily incorporated into the assessment schedule.

In order to compare changes in function over time, outcome-measure scores should be evaluated on such key values as the error around scores, the minimal detectable change score, and the minimal clinically important difference.

Benefits of functional-outcome measures also include improved communication with patients, referral sources, and payers regarding the goals and outcomes of treatment and improved documentation for marketing, quality assurance, clinical standards, and research.

Key Words: functional status, minimal detectable change, minimal clinically important difference

Evidence-based practice is driven by professional associations, clients, and third-party payers to justify the value of clinical interventions. With many health-care professionals providing similar services, there is a need to demonstrate to others that athletic training and athletic therapy are worthwhile alternatives. As certified athletic trainers (United States) and athletic therapists (Canada), we realize that we are good at what we do, but awareness of our skills by others is often lacking.

The purpose of this article is to examine the various

advantages of and barriers to the application of self-report functional-outcome measures available for use by athletic trainers and

therapists in orthopedic practice. Several types of self-report functional-outcome measures are described for use with a variety of musculoskeletal injuries. The benefit and application of functional-outcome measures is highlighted through the use of a clinical scenario.

With the constant changes in the health-care system, athletic trainers and therapists could benefit from documenting the fact that their treatment skills are effective and cost-efficient. This would help answer questions concerning the relative value derived from similar services. The use of self-report outcome measures to assess function can make clinical decisions easier and demonstrate the worth of our services.

Clinicians frequently assess client status with various measures of impairment, such as pain, range of motion (ROM), strength, and balance. Impairment measures offer valuable information to the clinician, but they are not always strongly correlated with functional capacity.¹ In other situations, clinicians might be inclined to assess changes in functional status but are unaware of a suitable instrument with which to do so.

Most often, patient goals are related to improvements in function. According to Taber's *Cyclopedic Medical Dictionary*,² function is defined as the manner in which an individual is able to successfully perform the tasks and roles required for everyday living. Thus, it makes sense to measure functional outcomes in our clients through the use of self-report measures.

Benefits of Self-Report Functional-Outcome Measurement

Binkley¹ has proposed several benefits of using self-report functional-outcome measures in clinical practice, which are summarized as follows:

- Improved client care and communication by focusing on a patient's functional goals
- Improved clinical decision making regarding continuation, change, or cessation of treatment based on functional measures shown to have solid measurement properties
- Improved communication with referral sources and third-party payers regarding the goals and outcomes of athletic therapy and athletic training
- Clear evidence regarding patients' functional levels, functional outcomes, and goals
- Improved documentation of outcomes in patient groups for marketing, quality assurance, clinical standards, and research

Binkley¹ has proposed several barriers to the use of self-report outcome measures in clinical practice, including the perception that their administration and scoring is a lengthy process, the assumption of a high correlation between impairments and disability, the assumption that altering impairment correlates highly with changing disability, the perception that the measurement properties of impairment-assessment methods are superior to self-report functional-outcome instruments, and the assumption that the scores of functional-outcome instruments do not have any significant meaning to clinicians.

Types of Self-Report Functional-Outcome Measures

There are three main types of self-report outcome measures³: generic, condition-specific, and patient-specific instruments.

Generic instruments are designed to be applicable across a broad range of diseases, conditions, demographics, and cultural subgroups and usually are a measure of overall well-being. Examples include the Short Form-36 and the Sickness Impact Profile. The limitations of these measures are that they are influ-

enced by comorbid conditions, take longer to complete and score, and are the least sensitive to change.

Condition-specific instruments are intended to assess disability and clinically important change in disability in a specific group or condition. They assess functional status most related to conditions or interventions but are only valid at the level of the total score, not individual items. Examples include the Roland-Morris questionnaire, the Chedoke-McMaster Stroke Assessment and the Lysholm Knee Scoring Scale.

Patient-specific instruments are designed to help clinicians make decisions about the health or functional status of individual patients. They are based on activities that are important to the patient and therefore are not suitable for comparison across patients. Patient-specific instruments are the most sensitive to change.

To highlight the advantages of self-report functional-outcome measures and how they can be applied to clinical practice, two clinical scenarios are presented in the sidebars.

Mary is a 55-year-old woman with a 1-month history of pain in her dominant right shoulder. She is a master-level tennis player on the national circuit. Her shoulder has become increasingly painful after 30-min. bouts of playing, as well as during daily activities. On initial assessment, her pain level was 9/10 but has reduced to 7/10 after 2 weeks. In addition, Mary's pain-free active shoulder flexion has increased by 40° to 155° since the initial assessment.

Peter is a 30-year-old sedentary man with a desk job. His shoulder has become gradually worse over the past few months. At his initial assessment, his pain was 7/10 and reduced to 5/10 in 2 weeks. During this same 2-week period of treatment, Peter's active shoulder flexion also increased by 40° to 155° pain free.

How would you track their progress and determine whether they are improving functionally with treatment?