

Implementing Patient-reported Outcomes in Athletic Training and its Applications to Other Health Professions

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Abstract

Athletic Trainers are still not universally familiar with patient-reported outcomes PROs and therefore, are not commonly incorporating PROs into AT clinical practice.¹ One survey found that only 26% of athletic trainers collected patient-reported outcomes and 74% indicated that they do not.² Although standardized, validated PRO surveys are routinely used in clinical and comparative effectiveness research, they are not consistently or effectively used in clinical practice.³ Most athletic trainers in the setting have not been exposed to outcomes collection on a routine basis.² Better education may assist in providing the ATs with the knowledge to use these tools in practice. Therefore, the focus of this project was to create and deliver an educational module on healthcare outcomes assessment to provide ATs with the knowledge and skills to implement outcomes assessment into practice. Applications for other health professionals will also be discussed.

Introduction

Injury can cause a range of physical and psychosocial detriments, which are predominantly examined using clinician-based assessments such as range of motion and strength.⁴ Clinician-based assessments are commonly used in athletic training in the form of manual muscle testing or special tests. These assessments give the clinician information on the injury but gives very little insight on the patient's view of their injury or their other possibly affected domains of health. Lack of objective measures of patient insight into their injury has led to a shift in using patient-based assessments or patient-reported outcomes (PROs) to measure the patient's experience and values after medical treatments, interventions, and practices.⁴

In order to better understand the importance of PROs and how they can be used in clinical practice, it is important to understand the concept of disablement models. Disablement models are conceptual models that provide a framework for clinical practice and research.⁵ Most health care professions use disablement models as a method of organizing clinical practice decisions because they are a critical piece of practicing evidence-based medicine.⁵ The International Classification of Functioning, Disability, and Health classified disability as an "umbrella" term under which impairments, activity limitations, and participation restrictions are included.⁶

This is different from impairment which is the loss, reduced capacity, or altered state of a specific physiological ability such as strength or range of motion. Disability can be measured objectively by observing the athlete performing specific functional tasks or subjectively through the use of self-assessment questionnaires.⁶ It is critical for the healthcare professional to understand the difference between impairment and disability so that they can select the appropriate assessment tool to guide clinical decision making. Evaluations that emphasize impairments such as limitations in range of motion and strength fail to address the larger psychosocial issues that potentially affect the individual and may result in barriers to future athletic participation.⁷ For example, an athlete may see improvements in specific impairments such as strength or range of motion but are still considered to be disabled due to not being able to complete activities of daily living, sport specific movements, or both. This is particularly true for athletes, as the physical demands that they place on their bodies are higher than those of the general population. Patient-reported outcomes can allow the athlete to communicate other concerns that they might have that may be assumed by the clinician to not be an issue. For example, it could be assumed that if a soccer player can run and strike a ball for an entire game with minimal pain, that they should have no problem ascending or descending stairs or standing at work but this may not always be the case. The status of impairments do not always correlate with participation restrictions.

Athletic Trainers' Knowledge and Attitude Towards PROs

The purpose of this project was to determine if providing athletic trainers with educational modules about PROs increased their knowledge and improved their attitudes towards using them in their clinical practice. In order to better understand the knowledge and attitudes ATs have towards PROs, a survey was created to assess these components and make note before distributing educational modules. Following their participation in the educational modules, the athletic trainers completed a follow-up survey to see how their knowledge and attitudes had changed after receiving education on PROs.

Before the educational modules, a majority of athletic trainers had neutral feelings towards PRO use in the athletic training profession (62.5%) while the remainder had positive feelings about their use (37.5%). After the educational modules the athletic trainers all had very positive (50%) and positive (50%) feelings about the use of PROs in the athletic training profession.

As predicted, a majority of the athletic trainers did not have any experience using PROs (62.5%). It was interesting to see the athletic trainers with experience using PROs, none of them felt it was a negative experience (0%). Some athletic trainers had positive experiences using PROs (25%) and a few had neutral feelings about using PROs (2.5%).

In both the pre and post-educational surveys, athletic trainers were asked how familiar they were with potential benefits and barriers to using PROs. None of the athletic trainers felt very familiar with potential benefits (0%) or potential barriers (0%) prior to viewing the educational modules. They reported feeling somewhat familiar (37.5%), somewhat unfamiliar (25%), and very unfamiliar (37.5) with potential benefits to using PROs. Similar results were seen for their familiarity with potential barriers with athletic trainers feeling somewhat familiar (37.5%), somewhat unfamiliar (25%), and very unfamiliar (37.5%).

Prior to viewing the educational modules, the athletic trainers were asked to select anything they felt were potential benefits and barriers to using PROs in their clinical practice. They were asked the same exact question after viewing the educational modules and the results were compared. Prior to viewing the modules, the most frequently cited benefits to using PROs were “Enhancing communication between clinician and patient” (75%) and “Increasing patient satisfaction with care” (75%). “Attaining better patient outcomes” (37.5%) was also cited as a perceived potential benefit of using PROs. None of the athletic trainers selected “Help direct plan of care” (0%), nor did they choose “None” (0%) or “Other” (0%). After viewing the educational modules, all of the athletic trainers selected “Enhancing communication between clinician and patient” (100%), “Increasing patient satisfaction with care” (100%), and “Attaining better patient outcomes” (100%) as potential benefits to using PROs in their clinical setting. “Direct plan of care” (37.5%) was selected by three of the athletic trainers. None of the athletic trainers selected “None” (0%) or “Other” (0%). This suggests that the educational modules were successful in presenting potential benefits of using PROs.

When asked to select what they thought would be potential barriers to using PROs before viewing the educational modules, the athletic trainers most frequently selected “Too time-consuming to use” (75%). Also selected were, “Too complicated to analyze” (37.5%), “Lack of support” (37.5%), “No foreseen benefit from use” (37.5%), and “Too confusing to use” (25%). None of the athletic trainers selected “None” (0%) or “Other” (0%). After viewing the educational modules, the results for potential barriers were more positive with half of the athletic trainers selecting “None” (50%). Although these results were more positive, half of the athletic trainers still maintained that PRO use would be “Too time-consuming to use” (50%). Some athletic trainers still felt that PROs would be “Too confusing to analyze” (25%). These results suggest that while there were fewer perceived potential barriers after watching the educational modules, there are still some divided feelings on potential barriers in this particular setting.

After viewing the educational modules, the athletic trainers were asked how interested they were in implementing some form of PRO into their clinical setting. These results were very positive with all athletic trainers being either “Very interested” (62.5%), or “Somewhat interested” (37.5%).

Lastly, assessing the effectiveness of the educational modules themselves was the main focus of this project. The last two questions the athletic trainers were asked to answer were added to the post-educational survey. When asked how effective the modules were in presenting PROs, all of the athletic trainers responded with “Very effective” (100%). When asked if they had any questions that were not addressed in the modules, all of the athletic trainers responded “No, all of my questions were addressed” (100%).

Lessons Learned and Application to Other Health Professions

This project aimed to not only determine if electronic educational modules would be an efficient means to present PROs to athletic trainers, but to also assess the athletic trainers’ exposure and attitudes towards PROs. Prior to the modules, 62.5% of the athletic trainers knew what PROs were, however a meaningful percentage did not.

The electronic educational modules were deemed efficient, as all athletic trainers responded that they were “Very Efficient” and no one reported any unanswered questions after watching the modules. These findings indicate that electronic modules are efficient in educating athletic trainers on PROs and may be an appropriate way to educate other health professionals on the use of PROs in clinical settings.

Potential health professions that could benefit from providing education on PRO use and implementation include but not limited to; physical therapists, occupational therapists, physician assistants, orthopedic specialists, nurses, and dental professionals. All of these health professionals share a common objective of delivering quality patient care with the expectations of high patient satisfaction. By implementing PROs, these professionals gain measurable feedback and insights concerning their care directly from the patients. PROs can be tailored to address the specific needs of patients in each discipline. Educational modules can be an efficient and impactful way to educate health professionals on PRO use and help them implement their use to improve patient care.

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