

Strategies to Involve End Users in Sport-Science Research

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The *International Journal of Sports Physiology and Performance (IJSP)* emphasizes research with direct practical applications for enhancing sport performance. Hence, the research published in *IJSP* is designed to be implemented by athletes, coaches, or supporting practitioners (our “research end users”). Since our end users are the people who should be able to take the words off the page and put them into practice, getting them more involved in the research can help make it more user-friendly and ready to be implemented.

A good starting point is to identify research questions in collaboration with the research end users. What are their biggest challenges and opportunities? What information would assist them to make better and more actionable decisions? Uncovering this information won't always be as easy as a single conversation; researchers need to build strong relationships with their end users, ideally by becoming embedded in the training environment, supporting training camps, or providing services to enhance the program and performances. And don't underestimate the benefits of training with the athletes (sweat equity); meeting athletes and coaches with curiosity at their own arena gives researchers integrity and understanding. Prof Louise Burke (Melbourne, Australia) credited the success she had with building a research program around the international racewalking community to regularly training with the athletes—luckily, she could run as fast as they walked.

Putting in the effort to identify research questions in collaboration with end users will go a long way to ensuring that a relevant problem is being addressed. However, the collaboration shouldn't stop there. Research end users should also be involved in the design of research, too. Indeed, many funding schemes in a variety of fields now require evidence of consultation and input from research end users in grant applications, and for good reason, as sport-science research is complex and it's not always easy to plan projects without knowing the intricacies of how any change to a training program might affect the athlete. For example, when we assessed the effects of postexercise hot-water immersion on heat adaptation and performance in elite racewalkers,¹ it was vital to have the coach prescribe an effective and customized training program. If the training prescription and subsequent loads were too low, then the hot-water immersion could have just acted as the stimulus to offset any mistakes in training prescription, which would not have been a true and fair indication of the real effect of the intervention (and would have reduced the usability of our research).

Another benefit of close collaboration with research end users is the development of more effective interventions. There appears

to be an issue in sport-science research where robust procedures to develop interventions are not commonly applied. A range of formal intervention-development procedures exist, and a core component of these is consultation with the target population.² As a part of our ongoing work to develop an intervention for runners to induce a flow state (an optimal psychological state similar to the “runner's high”), we conducted a thorough qualitative study of runners' perspectives of potential strategies for flow interventions.³ What we found was certainly key to shaping the intervention moving forward, so we would advocate for others to try similar approaches. While not all interventions are as complex as inducing flow and may not need to follow intervention-development guidelines, all interventions used in sport-science research could benefit from a sense check with the targeted research end users. And when it comes to intervention implementation, there is a whole world of implementation science in health care settings that sport science could learn from, too.

Even after the data are collected and analyzed, there is still opportunity for input from our research end users. One approach that we have used is conducting a research-translation workshop to discuss the initial findings and better understand how they can be implemented by end users. We invite coaches, athletes, performance managers, sport scientists, and key decision makers (eg, governing bodies) to join the workshop, discuss the findings, and identify the next steps for both research and practice. This approach helps everyone better understand the initial results before they are finalized and can ultimately identify important future research questions and actions to drive the research forward.

It is generally estimated that it takes 15 years for research to be implemented in practice, but taking the steps discussed here could help fast-track this process. Whether it be establishing the research question, formulating the study design, developing an intervention, or translating the results, greater input from the research end users is key to conducting high-quality research in sport science that ultimately has a greater impact on practice.

References

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