EDITORIAL

Title: Survey Studies: Connecting Sport Science to Coaching Practice

Irineu Loturco[1] and Chris Bishop[2]

1. *Federal University of São Paulo and Nucleus of High Performance in Sport, Brazil; Associate Editor for IJSPP.*
2. *London Sport Institute, Faculty of Science and Technology, Middlesex University, UK.*

Bridging the gap between science and practice – this is the main objective (or at least it should be) for of sport scientists. Instead of adopting minimalistic perspectives or addressing issues entirely disconnected from real-world training scenarios, where available training time is highly limited, researchers involved in sport science need to be aware of the actual challenges faced by coaches in their daily routines. Long journeys to compete, congested schedules, and progressive increases in physical demands during training and competition, especially in speed and power activities, are some of the most critical issues that coaches frequently handle in elite sports.[1] Of course, studies in sport science do not always take these constraints and barriers into account, which is understandable given the comprehensive nature and complexity of the field. Nevertheless, research focused on elite sports should not be conducted without considering these aspects. A recent survey involving 106 coaches from various sports and countries investigating issues pertaining to training processes highlighted this point: "If training research continues as present, the field runs the risk of not only becoming detached, but increasingly irrelevant to those it is trying to help."[2]

This is the moment that survey studies become essential, as they provide a unique opportunity to better understand the real difficulties faced by coaches and to address these issues in future interventions. Surveys are also highly relevant in terms of practical applications. Specifically, and for example, these studies enable us to identify and examine the training practices regularly utilized by coaches and promoting the adoption of more effective evidence-based approaches, aligned with the current literature on some specific topics (e.g., resistance or speed training practices).[3,4] It is no coincidence that surveys are among the most widely read studies and have recently gained increased

acceptance in prestigious sport science journals. Despite their apparent simplicity, surveys can be performed using high-quality methodological approaches, pre-validated questionnaires, and innovative data analysis procedures; thus, enhancing consistency and accuracy in data processing. These options are readily available to researchers, covering a variety of factors related to coaching practices.

For example, a recent survey published in IJSPP,[3] aimed at understanding the beliefs and strategies of football practitioners who implement high-speed and sprint training sessions in their programs, used a mixed statistical approach to analyze the data, combining descriptive statistics, mixed-effects models, and multinomial logistic regression models. Beyond its innovative characteristics, this complex statistical modeling enables the independent analysis of distinct "domains", described in the study as: "Who, Why, When, What, and How". More importantly, this method facilitates the exploration of questions that are highly relevant from an applied standpoint, such as the lack of consensus on the conceptual constructs defining high-speed and sprint-running exposure, as well as the methodological procedures employed by practitioners to monitor these metrics during match-play. Furthermore, this sort of detailed analysis reveals that there is a broad spectrum of training methods considered effective by practitioners for developing these physical qualities. Interestingly, some of these methods (e.g., game-based training) are largely regarded as at least, "moderately effective" for enhancing sprinting abilities, which partially diverges from the current literature on the topic.[5] Although the authors acknowledged the inherent limitations of their study (e.g., the use of a convenience sample and the exclusion of perceptions from other stakeholders, such as the players themselves)[3] there is no doubt that their findings can provide a solid foundation for guiding coaches and informing future interventions involving football and high-intensity running exposure.

Surveys focusing on highly specialized samples (e.g., Olympic coaches) are also generally well-accepted within the field.[4] This type of study can, among other benefits, provide coaches with valuable insights into specific topics applicable across various sports, in which certain physical abilities, such as speed and power, play a key role (e.g., team-sports).[4] Additionally, based on these studies, researchers can design more realistic projects, capable of addressing the actual priorities of elite athletes. Notably, in a survey conducted with Olympic track and field coaches, the authors emphasized that identifying the practices commonly employed by leading sprint coaches - who work with the fastest men in the world - may assist practitioners from various disciplines in developing more

effective neuromuscular training programs.[6] Once again, in these studies, challenges related to sample size are expected, given the exceptional characteristics of the sample (i.e., Olympians). However, the knowledge gained from such studies can offer unique perspectives to the field, that would otherwise be difficult, if not impossible, to obtain. Therefore, journals and editors should recognize the potential interest and the confidence that these studies could inspire.

Although this is not necessarily a call for surveys, it serves as an encouraging message for researchers interested in pursuing this type of research. As long as they are well-designed and well-conducted, we are prepared to welcome these submissions to IJSPP, thereby contributing to a deeper understanding of the challenges faced in elite sports.

References

1. Freitas TT, Pereira LA, Reis VP, Fernandes V, Alcaraz PE, Azevedo P, Loturco I. Effects of a Congested Fixture Period on Speed and Power Performance of Elite Young Soccer Players. *Int J Sports Physiol Perform*. 2021;16:1120-6.
2. Anyadike-Danes K, Donath L, Kiely J. Coaches' Perceptions of Factors Driving Training Adaptation: An International Survey. *Sports Med*. 2023;53:2505-12.
3. Dello Iacono A, Beato M, Unnithan VB, Shushan T. Programming High-Speed and Sprint Running Exposure in Football: Beliefs and Practices of More Than 100 Practitioners Worldwide. *Int J Sports Physiol Perform*. 2023;18:742-57.
4. Loturco I, Zabaloy S, Pereira LA, Moura T, Mercer VP, Victor F, Zając A, Matusinski A, Freitas TT, Bishop C. Resistance Training Practices of Brazilian Olympic Sprint and Jump Coaches: Toward a Deeper Understanding of Their Choices and Insights (Part III). *J Hum Kinet*. 2024;90:183-214.
5. Dello Iacono A, McLaren SJ, Macpherson TW, Beato M, Weston M, Unnithan VB, Shushan T. Quantifying Exposure and Intra-Individual Reliability of High-Speed and Sprint Running During Sided-Games Training in Soccer Players: A Systematic Review and Meta-analysis. *Sports Med*. 2023;53:371-413.
6. Loturco I, Haugen T, Freitas TT, Bishop C, Moura T, Mercer VP, Alcaraz PE, Pereira LA, Weldon A. Strength and Conditioning Practices of Brazilian Olympic Sprint and Jump Coaches. *J Hum Kinet*. 2023;86:175-94.