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Conference Abstract

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Training Modification Decision-Making and the Role of Athlete Monitoring in Elite Endurance Sports Coaching: An Instrumental Case Study of a World-Class Cycling Coach and a World-Class Development Rowing Coach

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training monitoring; qualitative research; sports practitioner

1 Introduction

The purpose of this study is to improve the understanding of the training modifications made by elite endurance coaches and explore the role athlete monitoring has in this process.

2 Material and Methods

Using Stake's (1995, 2003) case study methodology, an instrumental case study design was employed to allow naturalistic generalisations to be drawn when exploring endurance sports coaching and athlete monitoring at the elite level. The participants were a world-class cycling coach focusing on two athletes and a world-class development rowing coach focusing on three athletes. The data collection spanned six months and included four semi-structured interviews, eight field observations of training sessions, and eleven retrospective verbal reports generated through a stimulated recall, which is

a procedure to prompt participants to recall their cognitive activity and then employ the think aloud method to verbalise their thoughts while the information is attended. The qualitative data analysis was guided by Stake (1995) guidelines for case study methodology. Stake's methodology (1995; 2003) emphasises interpretive validity, which was maintained by ensuring that the participants' perspectives were authentically represented while also recognising the role and reflexivity of the researcher in shaping the analysis and interpretation of the data. The qualitative analysis consisted of categorical aggregation and direct interpretation generated three themes regarding coaches' athlete monitoring and training modifications: 1) Gathering and balancing information for continuous situational assessment and training modification triggers; 2) The only constant in coaching is change: Anticipating modifications and being ready for the unexpected; 3) Empowering athlete autonomy of training modification decision-making within coach boundaries.

3 Results

The findings indicated that minor to moderate training modifications were predominantly reactive to disruptive events and subjective athlete feedback accounted for 36% of the captured extracts of minor and moderate training modifications, while major training modifications were predominantly in response to crisis events. Quantitative monitoring data alone rarely dictated a training modification unless there were concerns about the athlete's honesty, however, quantitative information led to gathering additional qualitative information through intensified coach-athlete communication and coach observation of the athlete. The findings also highlighted that athlete monitoring had a central role in modifying training, yet external non-athlete monitoring information such as weather, logistics, and organisational decisions was in 32% of the captured data the decisive information. Further, coaches demonstrated adaptability to changing circumstances through anticipatory conditional decision-making. This was done by establishing multiple decision paths in advance and, depending on the athlete monitoring outcome, selecting the most appropriate course of action. Additionally, the coaches empowered their athletes and gave them the autonomy to make minor to moderate training modifications within the coach's boundaries, athlete decisions represented 25% of the captured data. Lastly, the cross-case differences reflected sport-specific and organisational factors in training modifications and showed a higher injury incidence of the under-23 rowers compared to the professional cyclists, which may be related to the experience of the athletes.

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