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The prevalence and application of 'off-feet' training practices with professional team sport athletes

Highton, J.

University of Chester

INTRODUCTION:

Metabolic conditioning of team sport athletes typically involves a combination of field-based high-intensity interval and game-specific training [1]. There has been recent interest in the effectiveness of 'off-feet' training (i.e., cycling, rowing, upper body ergometry), which has been advocated for athletes who might require careful load management. However, the prevalence and application of this form of training are not yet known. Therefore, the aim of this study was to explore off-feet training use in professional team sports.

METHODS:

A snowball sampling approach was used, where those responsible for the delivery of strength and conditioning and rehabilitation of professional team sport players were targeted and then asked to forward an electronic survey. The survey comprised 27 questions in four sections (demographics, pre-season use of off-feet conditioning, in-season use of off-feet conditioning, and use of hypoxic training with off-feet conditioning). Fifty-nine respondents were included in the final analysis. Participants were sport scientists (28.8%), strength and conditioning coaches (49.2%), physiotherapists (8.5%) and 'other' (13.6%). The sports represented were rugby union (25.4%), rugby league (18.6%), soccer (40.7%), hockey (8.5%), netball (1.7%), cricket (1.7%), basketball (1.7%) and 'other' (6.8%). Respondents worked with males most often (89.8%).

RESULTS:

Of the 59 respondents, only three reported not using off-feet training methods at any time. Cycling was used by more practitioners than other forms of training ($X^2 = 93.6$, $P < 0.0001$). Thirty-seven (62.7%) of the respondents used more than one type of off-feet training, whilst 15 (12.7%) used only cycling. Season stage normally had no effect on whether off-feet conditioning was adopted. Practitioners typically prescribed 1-2 off-feet sessions per week (67.9%), but load managed players were likely to complete off-feet training more frequently than uninjured players ($X^2 = 41.786$, $P < 0.001$). Load managed players were also more likely to undertake off-feet conditioning as a main training stimulus ($X^2 = 30.42$, $P < 0.001$). Short intervals (< 60 s) were the most used forms of off-feet training ($X^2 = 148.601$, $P < 0.0001$), and heart rate (50.8%), rating of perceived exertion (54.2%) and power output (37.3%) were the most frequent prescription methods ($X^2 = 36.525$, $P < 0.001$). Eighteen (30.5%) participants reported using hypoxic training in conjunction with off-feet conditioning, with lack of facilities (50.8%) being cited as the most common reason for not using this approach.

CONCLUSION:

Off-feet training is a prevalent approach to metabolic conditioning in professional team sport players, despite limited research on its efficacy. This research provides a basis for researchers to examine this training method and ensure best practice with athletes.

1. Fairbank et al. (2022)

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