THE PHYSICAL AND PHYSIOLOGICAL CHARACTERISTICS OF ELITE FEMALE SOCCER PLAYERS

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i. ABSTRACT

Despite the growing popularity and professionalism of female soccer in recent years, a physical analysis of elite female players has not been thoroughly conducted. The activity profiles of male soccer players during matches and training have been well documented, and coaches of female teams often rely on data from men’s soccer to prescribe conditioning programs and develop training load monitoring benchmarks. Therefore, the aim of this thesis was to investigate the physical and physiological characteristics of elite female soccer players during training and competitive matches. The physical and physiological characteristics of elite female soccer players were analysed across a playing season (including a week of preseason training), during a sample of small-sided training games, as well as during competitive Australian national league (W-League) matches. The key findings of this research were:

1) sprint performance and training demands declined across the course of a playing season, 2) total and exercise energy expenditure was 11,692-12,242 kJ and 2,695-2,538 kJ, respectively, 3) smaller small-sided (training) games can be used to develop repeat acceleration ability and aerobic capacity while larger small-sided (training) games can be used to develop maximal speed, 4) the high-speed and sprint characteristics vary according to playing position and time period of the match, and 5) the acceleration and deceleration profiles vary according to playing position and intensity. The findings from this research thesis can be used to develop match-specific conditioning and change of speed programs, as well as develop training load monitoring benchmarks.
iii. ACKNOWLEDGEMENTS

Thank you to my parents, for always supporting (most of) my crazy ideas, and for simplifying my research down to this: “if you score more goals than the other team, you are going to win the game”.

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