

MATCH SCORE INFLUENCES RUNNING INTENSITY IN FOOTBALL

Varley, M.C. 1), Pedrana, A. 3) & Aughey, R.J. 1)2)

1) Institute of Sport, Exercise and Active Living, School of Sport and Exercise Science, Victoria University, Australia

2) Western Bulldogs Football Club, Australia

3) Melbourne Victory Football Club, Australia

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Introduction

Match analysis in football has often focused on identifying periods of physical fatigue during a match or linking the movement profile of athletes to the standard of play, league position or time in possession of the ball. The tactical role of a player may change during a match in response to the match score, which may directly affect the movement profile of that player. Therefore, the aim of this study was to investigate the effects of match score on the movement demands of elite football players.

Methods

Player velocity data was recorded from 13 outfield players for a total of 60 game files using a 5Hz Global Positioning System (GPSports, Australia) over the 2010-2011 A-League season. Raw velocity data was analysed using a custom-spreadsheet. Distance covered was expressed per unit of game time ($\text{m}\cdot\text{min}^{-1}$) when the team either in a winning, losing or drawing position for the following movement categories: low-intensity activity (LIA) ($<4.17 \text{ m}\cdot\text{s}^{-1}$), high-intensity activity (HIA) (high-velocity running + maximal accelerations ($\geq 4.17 \text{ m}\cdot\text{s}^{-1} + \geq 2.78 \text{ m}\cdot\text{s}^{-2}$) and total distance (TD). All data was log-transformed to reduce bias due to non-uniformity of error and analysed using the effect size statistic.

Results & Discussion

Distance covered per minute was substantially higher for TD, LIA and HIA when drawing (11, 8 and 26%, respectively) and losing (7, 6 and 17%, respectively) compared to winning. There was no difference in the distance covered per minute when drawing compared to losing (Table 1).

Table 1. Distance covered during different scorelines . All data is mean \pm SD

Match Status	Total Distance ($\text{m}\cdot\text{min}^{-1}$)	LIA Distance ($\text{m}\cdot\text{min}^{-1}$)	HIA Distance ($\text{m}\cdot\text{min}^{-1}$)
Winning	96.74 \pm 15.12	83.49 \pm 10.79	14.10 \pm 7.13
Losing	103.47 \pm 9.84*	88.17 \pm 7.29*	16.40 \pm 5.72*
Drawing	106.98 \pm 11.17†	90.48 \pm 7.57†	17.78 \pm 6.51*

* small increase compared to winning

† moderate increase compared to winning

Conclusion

Match score had an influence on the running intensity of players. The greater distance when drawing and losing may be due to the match outcome being in contention and an urgency to win the ball. The reduced distance when winning may be attributed to a tactical focus on controlling the game through ball retention and a slowing of play.