Abstract

Title: Analysis of in-game sprints in youth soccer academy players

Objectives: The main objective of this bachelor thesis is a detailed analysis and subsequent comparison of the tactical context of sprints that occurred during five U19 football matches.

Methods: The study involved 23 players of the SK Slavia Praha U19 team (age 17.3 ± 0.8 years), who were observed during five matches of the 1st National Youth League in the Czech Republic. Data were collected using GPS units Playertek+ (Catapult) and supplemented by visual analysis of videos taken by VEO camera. Sprints were classified according to type (run-up, return, pressing, sprint with ball) and tactical context (offensive, defensive) considering to player positions. Statistical analysis included the calculation of the power of the effect (Hedges' g) and the arithmetic mean with standard deviation.

Results: Most sprints were recorded in the second half of the game (12 ± 4.2). The central midfielders showed a low effect of significance between offensive and defensive sprints (g = 0.4). Offensive players performed on average 3.1 ± 2.1 offensive and 1.6 ± 1.7 defensive sprints, corresponding to a medium effect of significance. In contrast, center-backs performed 0.4 ± 0.9 offensive and 2.4 ± 1.2 defensive sprints, representing a high significance effect. A total of 270 sprints were recorded, including 142 offensive sprints (115 runs, 27 with the ball) and 128 defensive sprints (118 returns, 10 pressures).

Conclusion: The results suggest the importance of specific training of players' speed abilities according to the playing position and tactical context. These findings can serve as a basis for optimizing the training process in youth soccer.

Keywords: data analysis, sprint type, individualization, tactical context, football preparation