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How the quality of tactical actions is related to high-intensity running?

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Introduction
The physical demands of soccer are increasing over time (Di Salvo et al., 2007). This trend leads to higher intensity of play with respect to the distances covered by players, specially in high-intensity running, which is an useful indicator of physical performance (Krustrup et al., 2003). This indicator is related to tactical demands, which is essential to achieve high levels of performance (Garganta, 2001). This indicates the need of research to better understand how tactics and intensity running interact. Thus, the aim of this study is to verify the correlation between the quality of tactical actions and the distance covered in different intensity running.

Methods
The sample was comprised of twenty-one U-21 Brazilian soccer players (18.6±0.7 yrs) from a first division club. The System of Tactical Assessment in Soccer (FUT-SAT) was used to assess the tactical actions performed by the players according to the ten core tactical principles of soccer (Teoldo et al., 2011). Data regarding the quality of tactical actions was obtained through the calculation of the percentage of success of the actions performed during the field test. Intensity running data was obtained with GPSPORTS SPI HPU, and was coded into the following categories: standing (< .7 km.h-1) walking (< 7.1 km.h-1), jogging (7.2–14.3 km.h-1), running (14.4–19.7 km.h-1), high-speed running (19.8–25.1 km.h-1) and sprinting (> 25.1 km.h-1). Pearson correlation coefficient (r) was performed to verify correlation between the intensity of the distance covered and the quality of tactical actions.

Results & Discussion
There was a significant relationship between the quality of tactical actions and distances covered in standing (r = .67, p < .001), jogging (r = .58, p < .01) and high-speed running (r = -.46, p < .05). This data showed that higher quality of tactical actions is positively correlated to coverage of longer distances in low-speed running (< 14.4 km.h-1), but negatively correlated to high-speed running. It suggests that players who are better able to manage the playing space also optimize the usage of their physical capacity and thus need to cover shorter distances in high-intensity running.

Conclusion
Our results showed that the quality of tactical actions is positively correlated to distances covered in jogging and standing, but negatively correlated to high-speed running. Thus, players with superior tactical quality have less physical wear in high-intensity running to manage the playing space.

References

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