BALL AND GOAL LOCATION CONSTRAIN PLAYER INTERACTIONS IN FUTSAL

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Introduction

In 1vs1 sub-phases in team ball sports, observations of attacker and defender displacement trajectories have revealed stable patterns of interpersonal coordination (Davids, et al. 2006). This study aimed to extend previous research by examining attacker-defender interactions during competitive performance in the sport of futsal, investigating how the location of the goal and ball constrained the interpersonal interactions of attacker-defender dyadic systems.

Methods

Ten national-level competitive futsal matches were filmed (25 Hz) and thirteen goal sequences without transitions in ball possession were randomly selected for analysis from the total number of sequences that ended in a goal being scored (n=79). Displacement trajectories of players and the ball were digitized and coordinates acquired (see procedures in Duarte, et al., 2010) from 52, attacker-defender dyadic system interactions. Relative phase (Palut & Zanone, 2005) was used to express the coordination state (in-phase - 0º; anti-phase - 180º) between the following variables: the attacker and nearest defender distances (i) to the goal and (ii) to the ball, and also their angles (iii) to the goal and (iv) to the ball.

Results & Discussion

Data showed that the attacker and defender angles to the goal were highly coordinated in an in-phase mode (49%). Both players' distances to the goal also presented the same type of attraction (46% of in-phase). A smaller pattern of in-phase coordination modes emerged between the attackers and defenders' distances to the ball (29%) and angles to the ball (27%).

Conclusion

In competitive performance in futsal, the location of the ball and the goal seem to constrain the coordination between an attacker and his nearest defender. However, results suggest that the location of the ball was not as influential as the goal on player interpersonal interactions.

References

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