

28th ECSS Anniversary Congress, Paris/France, 4-7 July 2023

Training aims for small-sided games: the effects on small-sided game design and locomotor demands in women's academy soccer

Olthof, S., McQuilliam, S.

Liverpool John Moores University

INTRODUCTION:

Small-sided games (SSGs) are training formats played in a soccer practice and played with the intention to induce physical, technical, and tactical training stimuli[1,2]. Coaches use varying pitch dimensions, team sizes, and playing rules to emphasise a desired training outcome. Where manipulations in SSG constraints shape the demands for players, it remains unclear what the influence is of the intended training aim on the design and consequently the demands in SSGs. Therefore, the aim is to investigate the effect of the intended training aim on the SSG design and players' locomotor demands.

METHODS:

Training plans and locomotor demands of an under-21 women's academy team were monitored. Eighteen players played a total of 186 SSGs during 64 practice sessions over five months. Training plans were completed by the coach before the training and included the intended training aim (i.e., physical, technical and/or tactical), pitch size (as the relative pitch area [RPA]), team size, and duration for each SSG. Locomotor activities were obtained with player tracking technology (Catapult S7, Melbourne, Australia) during the training and analysed on total distance (TD), high-speed running distance (HSRD; 12.5-19.0km/h), very high-speed running distance (VHSRD; 19.0-22.5km/h), sprint distance (SD; >22.5km/h)[3], and accelerations and decelerations (ACC-DEC). Locomotor variables were normalised for the SSG duration. Differences in the training design and locomotor demands were evaluated for training aim (ANOVA with post-hoc tests with Bonferroni corrections; $p < .05$).

RESULTS:

The intended training outcome had a significant effect on the SSG design and demands ($p < .001$). SSGs with a technical aim were played in a smaller RPA, with less players, and for a shorter duration than in SSGs with a (combination of) tactical and physical aim ($p < .05$). Further, SSGs with a physical aim demanded greater TD, HSRD, VHSRD, and SD from the players than with a (combination of) technical and tactical aim ($p < .05$). In SSGs with a technical aim, players covered less TD, HSRD, VHSRD, and SD, but performed more ACC-DEC than in SSGs with a (combination of) physical and tactical aim ($p < .05$).

CONCLUSION:

The training aim significantly influenced how coaches designed SSGs prior to practice and consequently affected the players' locomotor demands. SSGs with small pitch sizes and number of players and a short duration are typically played for a technical outcome, but also evoked more ACC-DEC. In contrast, SSGs with greater pitch sizes and number of players and a longer duration are often used for physical and tactical outcomes. This induced greater running demands and aligned with the physical aim of the SSG[2]. Coaches' intentions for a SSG determine the format, and will consequently stress the locomotor demands, alongside technical and tactical demands[1].

1. Hill-Haas et al., Sports Med, 2011, 41(3)
2. Bujalance-Moreno et al., J Sports Sci, 2019, 37(8)
3. Bradley & Vescovi, Int J Sports Physiol Perform, 2015, 10

Topic: Training and Testing

Presentation Poster

European Database of Sport Science (EDSS)

Supported by SporTools GmbH



35045