

PHYSICAL AND TECHNICAL/TACTICAL CHARACTERISTICS OF SINGLE- VS. MIXED-GENDER SMALL-SIDED GAME IN ELITE FEMALE SOCCER PLAYERS

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Introduction

Women occasionally train with men in order to benefit from the physically more intense and technically more advanced men's football play. Yet, there is little evidence on what changes when women train with men. The present study aimed to evaluate the physical and technical-tactical differences between single- and mixed-gender training exercises in female elite soccer players.

Methods

Eight female elite soccer players (mean age: 18.8±2.1 y) played a 6 vs. 6 small-sided training game (SSG) for four minutes on two occasions: once with two all-female teams (SSG_{fem}) and once with two mixed-gender teams (SSG_{mix}) (one female player and five U-16 boys). Four physical (% maximum heart rate (%HR_{max}), lactate concentration (LA), rate of perceived exertion (RPE) and covered distance (DIST)) and nine technical-tactical (e.g., "number of ball contacts per player") variables measured using a video system were compared between the two settings.

Results & Discussion

In the physical parameters, the effect sizes (ES) of the differences between SSG_{fem} and SSG_{mix} were only small to moderate (DIST 543.1±30.8m vs. 546±43.2m, ES 0.07; RPE 13.1±1.7 vs. 13.6±0.9, ES 0.29; %HR_{max} 92.1±1.9 vs. 91.8±2.8, ES -0.14; LA 4.6±1.1 vs. 5.4±1.8mmol/l, ES 0.53 (95%-CI -0.31–1.37). In the technical-tactical parameters, the biggest differences appeared in "ball contacts per ball possession" (SSG_{fem} 2.2±0.4 vs. SSG_{mix} 1.7±0.3, ES -1.15 (-1.98–0.31)), "time per ball possession" (1.18±0.4s vs. 0.86±0.4 s, ES -0.77 (-1.61–0.06)) and "% one-touch passes" (36.2±16.3 vs. 47.2±18.7, ES 0.59 (-0.24–1.43)), suggesting higher technical demand in SSG_{mix} than SSG_{fem}. In SSG_{mix}, however, fewer "involvements with the ball" (9.8±1.8 vs. 8.5±2.7, ES -0.51 (-1.35–0.32)), "ball contacts" (20.9±7.4 vs. 15.1±6.2, ES -0.80 (-1.64–0.03)) and "passes" (8.6±1.9 vs. 7.3±2.4, ES -0.53 (-1.37–0.30)) also were recorded.

Conclusion

The results suggests that female soccer players may benefit more from technical (skill proficiency) than physical aspects in a mixed-gender SSG, although the quantity of ball contacts is lower compared to single-gender SSG.

References

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