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COMPARISON OF EXTERNAL LOAD AND LOAD DISTRIBUTION BETWEEN A RESERVE TEAM IN A ONE-GAME WEEK MICROCYCLE AND ITS FIRST TEAM IN A TWO-GAME WEEK MICROCYCLE WITHIN AN ELITE PROFESSIONAL SOCCER CLUB

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INTRODUCTION:
To successfully transition from the academy to the first team, academy soccer players need to be prepared optimally to deal with superior demands on the senior level. While academy teams commonly carry out one-game week microcycles, competitive senior teams regularly carry out two-game week microcycles during congested fixture periods with games every 3-4 days. This study aimed to be the first one to quantify and compare weekly external load and load distribution between a reserve team (RES) in a one-game week microcycle and a first team (FT) in a two-game week microcycle within the same professional soccer club.
METHODS:
Between 2017 and 2020, 36 one-game week microcycles of RES players and 64 two-game week microcycles of FT players were analyzed from the same professional soccer club that competed in the Scottish Premier League and the Union of European Football Associations (UEFA) Europa League. FT players were subcategorized into starters (FTS; ≥90 minutes game time) and non-starters (FTNS; ≤45 minutes game time). Data was collected using global positioning measurements for the following variables: duration (min), total distance (TD; m), total high-speed distance (THSD; >19.8 km/h; m), high-speed distance (HSD; 19.8-25.2 km/h; m), sprint distance (SD; >25.2 km/h; m), number of sprints (number of efforts >25 km/h, ≥0.1 s), number of high-speed efforts (HS efforts, number of efforts >20 km/h, ≥0.1s), meters per minute (m/min) and high-speed meters per minute (HS m/min). For each group (RES, FTS and FTNS), external load was quantified for each day of their typical microcycle, and as a cumulative weekly load. Inter-group differences in cumulative weekly load, weekly load patterns and intra-group day-to-day load variability were statistically analyzed. Training monotony (TM) was quantified to assess intra-group within-week load variation.
RESULTS:
Overall, weekly loads between RES players in a one-game week microcycle and FTS in a two-game week microcycle were similar, apart from significant differences in duration (8%, $p<0.0001$), TD (21%, $p<0.0001$) and HS efforts (16%, $p<0.005$). FTNS had the lowest cumulative weekly load for all parameters observed. Weekly load patterns of RES players were significantly different from FTS and from FTNS ($p<0.05$). TM was highest for FTNS for all parameters observed, apart from number of sprints.
CONCLUSION:
Academy graduates, progressing from a one-game-week microcycle to a two-game week microcycle, need to be prepared optimally to cope with the overall weekly loads and the lack of complete recovery between games FTS face. However, when young players become part of the FTNS group where weekly loads are consistently lower (impeding aerobic and neuromuscular performance capacity) and TM is higher (indicating a limited training load variation with no progressive overloads), coaches are urged to exploit all opportunities to adopt effective loading strategies within the limits of two-game week microcycles to ensure their continuous development.

Topic: **Coaching**

Presentation **Oral**