

Influence of contextual variables on physical and technical performance in male amateur basketball: A case study

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Currently, most basketball research is focused on professional and elite players. Studies at the amateur level are important to explain the physical and technical demands of competition and thus improve players' and teams' performance. The purpose of the present study was to describe the competitive demands of an amateur-level basketball team and to analyze the influence of different situational variables on the physical and technical performance indicators. Eleven amateur senior basketball players participated in six official final-round games during the 2018/2019 season. External, internal load, and notational analysis were registered by inertial devices, heart rate bands, and video analysis. The Kruskal-Wallis H-test was applied for comparisons based on playing positions, periods, and final quarter game outcome, with the post hoc comparison accomplished by a Mann-Whitney U test. The Spearman correlation coefficient was realized for the relational analysis. The results showed that: (a) guards covered more volume of displacements (effective on-court time: $p < 0.01$, $E2R = 0.05$; steps/min: $p < 0.01$, $E2 = 0.28$) and the centers performed competitive actions of higher load ($[>8G]$ R Imp/min: $p < 0.01$, $E2R = 0.20$; jumps/min: $p < 0.01$, $E2 = 0.33$); (b) a performance decreasing was R found between the first and second half of the game; (c) in balanced matches there was the most individual technical performance (PIR/min: $p < 0.98$, $E2 = 0.01$), while in the unbalanced games more R high-intensity impacts were seen ($[>8G]$ Imp/min: $p < 0.01$, $E2 = 0.07$). The situational variables R analyzed had an influence on athletic performance in amateur senior basketball players and should be considered for designing training sessions and planning strategies during official matches. © 2020 by the authors. Licensee MDPI, Basel, Switzerland.

Amateurs

Basketball

External load

Internal load

Performance indicators

adult

article

athletic performance

basketball player

controlled study

correlation coefficient

court

heart rate

human

male

outcome assessment

post hoc analysis

rank sum test

season

videorecording