

Running Head: BASKETBALL SMALL-SIDED GAMES

POWER, HEART RATE AND PERCEIVED EXERTION RESPONSES TO 3X3 AND 4X4
BASKETBALL SMALL-SIDED GAMES

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ABSTRACT: Despite the interest drawn by game adaptations in players' performance development, no study examined the effects of these task constraints in basketball games exercise intensity. Therefore, the aim of this study is to identify differences in power, heart rate and perceived exertion responses to 3x3 and 4x4 basketball small-sided games. Eight young male basketball players participated in this study. Player's individual peak heart rate value and global perceived exertion was registered immediately after two small-sided games, 3x3 and 4x4. Additionally, squat jump and countermovement jump were used to assess power. Our results show that both small-sided games promoted high physiological demands, whereas the players performed the tasks above 80% of HRmax. Nevertheless, another interesting finding of this study is related to the fact that 3x3 contributed to higher physiological demands than the 4x4. The significant increase in the countermovement jump posttest jump results could suggest that the 4x4 were not played as quickly nor intensely as the 3x3. Decreases of the space and number of players in game allow greater self-recreation of players and greater intervention in game. Therefore, the heart rate response during the series displays a higher physiologic impact in 3x3 than in 4x4.

KEYWORDS: Training intensity; heart rate; rating of perceived exertion; basketball