

MAIN INDICATORS OF EXTERNAL AND INTERNAL LOAD IN FEMALE BASKETBALL

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Introduction. Internal and external loads are two measurable constructs of training load (Impelizeri et. al., 2018). Internal and external loads play very important role in monitoring of athletes. However authors also excluded fact that this area is not enough researched yet and needs further investigations (McLaren et. al., 2017). The aim of the research was to find the most important female basketball players internal and external loads.

Methods. Methods of research: research and analysis of sources of literature: (i) analysis of books, (ii) scientific articles and theses, (iii) electronic sources of information.

Results and discussion.

External load

Significant differences were determined comparing player level from amateur representative female basketball players to professional female basketball players. Biggest absolute covered distance was determined among professional female basketball players – (6177±264m). High school female basketball players (5587±171m) and collegiate female basketball players (5576±202m) covers smaller distances but similar one with each other (Oba et. al., 2008). Semi professional players covers even less distance (5125±314m) (Scanlan et. al. 2015).

Among professionals the most popular activity during match was standing (30.2±3.9%), second popular activity was jogging (24.0±9.0%), then in rotation appeared walking (9.5±4.5%) and the fourth popular activity was running (4.9±2.6%) (Delextrat et. al., 2015). Research of the Italy National championship I division female basketball players determines following indicators: stand/walk (50.2%), jog (11.7%), run (13.1%), and sprint (5.2%) (Conte et. al., 2015).

Internal load

One of the most popular internal loads to monitor in sports is *heart rate*. Scientists are working a lot on researching percentage of HR maximum. HR is a measure of exercise intensity, with acceptable validity (Berkelmans et. al., 2018). Vencuriket al. (2014) determines, that live playing time relative heart rate is very close between second senior National Championship division (87.9±3,6%) and first U19 National championship division (87.5±2,8%) in Czech Republic. Scanlan et al. (2012) made research in Australia State basketball league and determined lower results (82.4±1.3%).

Also in female basketball internal load of session *Rating Perceived Exertion (sRPE)* is very important. The highest (sRPE) one was determined in representative Lithuania U18 team (943±437AU) (Lukonaitienė et. al., 2020). U18 Lithuanian national team load was higher than in same research analyzed U20 representative Lithuania team (617±328AU) and at the same year researched representative adolescent female basketball players (726±456AU) (Lastella et. al., 2020). The smallest number was determined among U15 club players (213±54AU) (Otaegi and Los Arcos, 2020).

Conclusion. All internal and external loads researches are constructed to help basketball players to reach better results in basketball competitions. All authors are searching for the best internal and external loads to optimize training process. Coaches in basketball select their own playing style and the choice is very important for the correct monitoring of the team results interpretation.

Keywords: training, heart rate, distance covered.