Reasoning of dissertation topic and competency of potential supervisor for admission onto joint LSU and TU doctoral studies in 2019

Area of research (title and code)	**Biomedicine**
Field of research (title and code)	**Biology**
Topic of research	
Institution	**Lithuanian Sports University**

Potential supervisor

Pedagogical and scientific degree	Name, surname	Academic position
PhD	Daniele Conte	Researcher

Short reasoning of proposed dissertation topic

Title

Investigating the external and internal training load in volleyball matches and training sessions

Volleyball is a team sport characterized by intermittent repeated high-intensity actions (Hasegawa et al., 2002; Sheppard et al., 2009). During a 5-match game, volleyball players have been shown to perform 250-300 high power activities with attack and block situation representing the 45% of the total actions of the game (Hasegawa et al., 2002; Voight and Vetter 2003). The high load imposed on volleyball players requires the use of monitoring tools to maximize athletes' physical performance while preventing injuries and overtraining symptoms (Horta et al., 2017). Previous investigations adopted mainly internal training load tool to assess the seasonal variation in training load through subjective (i.e. session rating of perceived exertion) and objective (i.e. heart rate monitors) measures (Andrade et al., in press; Debien et al., in press; Horta et al., 2017; Mendes et al., 2018). To date, only a limited number of investigations analyzed the external training load during volleyball matches (Sheppard et al., 2009; Hasegawa et al., 2002), while limited information is available on training sessions. Moreover, external training load was measured with time-motion analysis techniques, which provide less detailed indications on external training load compared to microtechology, which provides data on athletes' PlayerLoad, distance covered, jumps, accelerations etc). Filling these gaps in scientific literature will provide volleyball coaches detailed information about volleyball match and training demands. Therefore, the aims of this research project are: 1) to quantify the external and internal training load in volleyball matches and training sessions; 2) to assess the relationship between external and internal load in volleyball matches and training sessions; 3) to assess the relationships between external and internal training load measures with game-related statistics in volleyball players.

Reference

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