



Mid Atlantic Regional Chapter of the American College of Sports Medicine

Annual Scientific Meeting, November 4th- 5th, 2017
Conference Proceedings

International Journal of Exercise Science, Issue 9, Volume 6



Evaluating the Potential Impact of Fatigue on Ultimate Frisbee Players During Tournament Play

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Previous research has evaluated the quantification of recovery from bouts of athletic events. Various individualized measures have been taken to calculate recovery, yet most utilized methods were somewhat problematic for rapid data collection. In performance scenarios where costs are limited, it is important to seek less expensive alternative methods of evaluating recovery. **PURPOSE:** To evaluate potential fatigue of collegiate ultimate frisbee athletes over two days of tournament play utilizing the perceived recovery status scale (PRSS) and ratings of perceived exertion (RPE). **METHODS:** Nineteen college-aged males between the ages of 18-23 participated in the study. Occurring over two days of tournament-style play, PRSS and RPE were recorded during 5 frisbee matches with each match separated by 30min (2 Saturday, 3 Sunday). Two minutes prior to the first and second half of competition, PRSS was recorded for each athlete. Conversely, 2 minutes after each half of competition, the players' RPE was recorded. **RESULTS:** Significant differences were observed in PRSS, specifically a decrease in associating values from the 2nd to the 5th matches ($p = 0.006$) and within the 2nd half of comparable matches ($p = 0.031$). No RPE recordings of any kind were significant. **CONCLUSION:** The data suggests that much of the variance in fatigue and fatigue-related measures occur between the 2nd and 5th matches of a weekend tournament. The cumulative effects of fatigue during the tournament could have been a result of several potentially uncontrollable factors. Although, decreased perceived recovery could be related to the increased stress levels that occurred as a result of the amplified significance of the final match. Future research should include other quantifiable recovery data including heart rate variability (HRV) and GPS measures. Also, a periodic test throughout tournament play could include a bioelectrical impedance analysis.