Abstract

Introduction: As sleep is paramount for the optimal performance and recovery of athletes, understanding sleep profiles is of great importance. Whilst sleep profiles of athletes from a range of sports have previously been examined, sleep profiles from solitary sports, during training and competition phases remain unknown. **Aim:** The aim of this study was to examine the sleep parameters of an elite group of swimmers (n=12) through training, taper, and competition phases in comparison to a baseline period of rest. **Results:** Within each testing phase, sleep parameters were monitored using self-report sleep diaries and wrist activity monitors and a significant difference in volume ($p < 0.001$) and intensity ($p < 0.01$) of swimming across testing phases was shown. There was a significant difference between phases for the time out of bed ($p < 0.01$) and a trend for differences between conditions for sleep onset latency, with latency at its highest during competition ($p = 0.08$). The remaining sleep parameters showed no significant difference between testing phases. There was a positive correlation between sleep onset latency and total daily nap time across the conditions ($r = 0.369$, $p = 0.01$) and also between ambient bedroom temperature and sleep onset latency ($r = 0.398$, $p < 0.01$). Athlete sleep duration was within the normative 7-8 h per night, ranging from 7.66-7.93 h across conditions. **Conclusion:** These results indicate that sleep parameters of elite swimmers show no significant variation between phases of rest, training, taper or competition. However sleep onset latency could potentially increase during competition and variables such as nap time and bedroom temperature could also have an effect.