**Don’t lose sleep over esports: How total sleep deprivation affects cognitive and in-game performance of Rocket League players**

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1. **BACKGROUND:**
   - Despite increasing earnings and resulting professionalism in esports, esport athletes often sleep poorly and are highly susceptible to sleep loss prior to competition.
   - Esports performance has a very large cognitive component, leading esport athletes to be referred to as ‘cognitive athletes’.
   - Acute sleep loss tends to affect cognitive performance more than physical performance, however it is unknown how it affects in-game esports performance.

**Aim:** To determine whether acute total sleep deprivation (TSD) affects the cognitive and in-game performance of young adults who play the popular esport ‘Rocket League’.

2. **METHODS:**

   **Procedure**
   - **Subjects:** Cognitive and Rocket League Players
   - **Materials:** Actigraphy (Readiband+), worn throughout.
   - **Consensus sleep diary, completed throughout.
   - **Subjective Measures:** KSS, Alertness, & Motivation, Visual Analog Scales.
   - **Cognitive Tests:** FVT (10 min), SynWin Multitask.
   - **Category Switch Task.**
   - **Rocket League: 7 matches, Last 1 per session.

3. **RESULTS:**

   - Figures A, B, C, D: Graphs showing the difference in performance between the control and TSD groups.

4. **SIGNIFICANCE:**
   - Our TSD protocol impaired the alertness and cognitive performance of esport players.
   - Overall game outcome was unaffected, however there is evidence of strategy change following TSD.
   - Players used a simpler and more risk-averse ‘playstyle’ following TSD, in contrast to what prior literature would suggest.

**References:**