Sleep regularity: a key for promoting well-being and preventing ill-being among high-level athletes

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Résumé

Introduction

The critical role of sleep in elite athletes is widely acknowledged, particularly in relation to performance and recovery (e.g., Malhotra, 2017). Concurrently, growing evidence has also linked sleep to both well-being and ill-being. However, these studies have primarily focused on traditional metrics such as sleep quality and quantity. These studies generally report that higher sleep quality and quantity are positively associated with well-being (e.g., Vorster et al., 2024), and negatively associated with ill-being (e.g., Glandorf et al., 2024)

Phillips et al. (2017) introduced the Sleep Regularity Index (SRI), a novel metric designed to capture the consistency of sleep-wake patterns by estimating the likelihood that an individual is in the same state (asleep or awake) at corresponding times on consecutive days. The SRI has demonstrated significant relevance, having been identified as a stronger predictor of mortality risk than total sleep duration in the general population (Windred et al., 2024). Additionally, among older adults, lower SRI values have been linked to greater severity of depressive symptoms (Lunsford-Avery et al., 2018). Despite the growing body of research on sleep patterns in elite sport, no study to date has formally investigated whether sleep regularity-as assessed by the Sleep Regularity Index (SRI)-can predict indicators of well-being and ill-being among elite athletes. Considering its demontrated predictive value for health outcomes in the general population, exploring the applicability of the SRI in the context of elite sport may provide new and meaningful insights into athlete mental health. This study therefore aims to investigate the associations between sleep regularity and indicators of well-being and ill-being among elite athletes.

Method

A sample of 130 athletes (55 women) competing in team sports at the highest regional level or higher were monitored for sleep over a 7-night period using ActiGraph GT9X accelerometers. At the end of this period, participants completed a questionnaire assessing indicators of their levels of well-being (i.e., athletes' satisfaction) and ill-being (i.e., burnout.

Linear regressions will be used to analyze the relationships between SRI and athletes' levels

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of well-being and ill-being.

Expected Results

We expect athletes with more regular sleep patterns to report higher levels of well-being and lower levels of ill-being. Conversely, we anticipate that athletes with less regular sleep will report lower levels of well-being and higher levels of ill-being.

Potential Implications

By examining the relationship between sleep regularity and both well-being and ill-being in elite athletes, this study seeks to enhance our understanding of how consistent sleep patterns relate to mental health in this population. From a practical standpoint, these findings may help raise awareness among athletes about the importance of maintaining consistent sleep-wake schedules to optimize well-being and mitigate risks associated with ill-being.

References

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