

Unraveling the impact of sleep and circadian rhythms on psychological development

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Question

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Context

Understanding the intricate relationship between sleep, circadian rhythms and psychological development is a pressing question within the field of *Sleep Psychology*. This initiative calls upon researchers to submit manuscripts that contribute to answering the fundamental query, “What is the role of sleep and circadian rhythms in psychological development?” By delving into the intersection of sleep and psychological development, we aim to illuminate this critical connection and its implications for human well-being. Specifically, it is our hope that through addressing this question, we can better design and tailor interventions that aim to enhance psychological well-being across the lifespan.

Sleep plays a pivotal role in psychological development across the lifespan. From early childhood to advanced age, the quality, duration and timing of sleep impact various aspects of cognitive, emotional, neural and social development (Jiang 2020; Kocovska et al 2017; Tempesta et al 2018). In infants and children, sleep is essential for brain maturation and learning (Gorgoni et al 2020; Mason et al 2021), with disturbances potentially leading to behavioral and cognitive issues (Beebe 2011; Saré et al 2016). Adolescents, whose circadian rhythms naturally shift later (conflicting with societal expectations of their sleep schedule), experience a myriad of difficulties including academic challenges, declines in mental health, physical health impairments and cognitive declines (Crowley et al 2018; Duraccio et al 2022). In adulthood, sleep is intricately linked to emotional regulation (Rossa et al 2014), memory consolidation (Koyanagi et al 2019) and overall psychological well-being (Tomaso et al 2021). As individuals age, changes in sleep can influence cognitive decline (Lim et al 2013; McSorley et al 2019), mood disorders (Palagini et al 2019) and quality of life (Becker et al 2018). The research in this field underscores the intricate connection between sleep and psychological development, emphasizing its importance for human growth and well-being.

Despite the recent considerable progress that has been made in understanding the role of sleep in psychological development, the connection between sleep, circadian rhythms and psychological development remains a complex and underexplored area. As such, *Cambridge Research Directions: Sleep Psychology* seeks to publish research that deepens our understanding of how sleep and circadian rhythms influence psychological development. By investigating the mechanisms and dynamics at play, researchers can provide valuable insights into this interplay and its significance for human development.

Specific research areas of high priority include:

- Investigating how variations in sleep patterns in infants and children influence cognitive development, emotional regulation and social behaviors in later developmental stages.
- Longitudinal research designs that evaluate how sleep quality and circadian timing affect emotional well-being and psychological resilience across development.
- The role of sleep and circadian rhythms in the development of mental health conditions, including mood disorders and anxiety, particularly in at-risk developmental periods (e.g., adolescence, young adulthood).
- Examining the role of sleep in emotional regulation and/or the consolidation of emotional memories in adults.
- Investigating how cultural norms, societal expectations and socioeconomic factors intersect with sleep and circadian rhythms, and their impact on psychological development, particularly among marginalized populations.
- Understanding whether shifts in later school start times positively influences the psychological well-being of adolescence.
- Exploring the effects of sleep deprivation and/or circadian misalignment on cognitive functioning and decision-making across development.
- Investigating the relationships between changes in sleep patterns in older adults, cognitive decline, mood disorders and the quality of life in the elderly population.

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- Exploring the potential of technology, environmental modifications and lifestyle changes to optimize sleep and circadian rhythms, with a focus on their potential benefits for mental health and psychological development.
- Researching innovative approaches and interventions that leverage our understanding of sleep and circadian rhythms to enhance psychological well-being across different stages of development.

Conclusion

The question of the role of sleep and circadian rhythms in psychological development is a compelling one that warrants further exploration. Researchers are encouraged to submit manuscripts that delve into this multifaceted relationship, ideally using longitudinal datasets or designs, ultimately contributing to a deeper understanding of how sleep influences human psychological development across development.

How to contribute to this question

For those interested in contributing to this question, detailed submission guidelines can be found in the “Instructions for authors.” This journal welcomes Results, Analyses, Impact papers, preprints and “grey literature.” Questions will be closed when sufficient research has been published to address them, so it is advisable to check the question’s status before submitting. If the question is closed, consider exploring other open questions in your field. For additional information, please check the information pages or contact sleeppsychology@cambridge.org.

Competing interests. The author has none to declare.

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