

Sleep Health and Mental Health: A Position Statement from the National Sleep Foundation

Sleep plays a critical role in maintaining good mental health, protecting against deterioration of mental health, and ameliorating poor mental health. Getting enough of the quality sleep we need helps to regulate mood, reduce stress and anxiety, maintain cognitive function, enhance overall well-being, and support optimal performance. In contrast, poor sleep health is associated with negative mood, increased emotional reactivity, and difficulty regulating our emotions. It is also closely tied to the occurrence of mental health disorders and their severity, including the risk of suicidal ideation, attempts, and deaths.¹ Understanding the associations among sleep health characteristics and mental health in the general population, and how practicing healthy sleep behaviors can promote better mental health is critical to public health. The National Sleep Foundation (NSF) calls for focused actions from a broad range of stakeholders, including:

- *Individuals and Families:*
 - Recognize sleep health as both an important predictor and outcome of one's mental health
 - Prioritize sleep to help promote mental health
 - Emphasize sleep health within the family through modeling and discussion of the value and benefit of sleep, particularly for children
 - Establish healthy sleep routines and schedules from an early age
 - Promote healthy sleep environments within the home
 - Monitor everyone's behavior for signs of poor sleep that may be affecting mental health (e.g., daytime sleepiness, mood disruption, attention difficulties)
 - Discuss concerns about sleep (adult and children) with healthcare providers
- *Healthcare Systems and Providers*
 - Integrate reliable/structured sleep screenings into regular medical and psychological evaluations
 - Implement prevention, screening, assessment, and treatment of mental health issues that incorporate sleep as a critical component
 - Develop institution-level procedures for using sleep data as part of routine data collection to flag risks for mental health issues and inform treatment of mental health
 - Recognize the unique developmental challenges for sleep health across different phases of the lifespan
 - Payers: Incorporate sleep health and wellness into mental health offerings
- *Educational and Government Organizations:*
 - Include education about sleep and mental health in K-12 and college health education, medical school and graduate health-related education, and educational programs for other health professionals
 - Implement mitigation programs specifically aimed at populations at higher risk for inadequate sleep and mental health issues (e.g., trauma victims, first responders, military personnel, postpartum parents, high school students) and among medically-underserved communities
 - Dedicate resources for reducing disparities in access to treatments that have both sleep health and mental health benefits
- *Employers:*
 - Educate workforces about the links between sleep and mental health
 - Implement fatigue management and mitigation plans for shift workers and other employees, including flexible scheduling options and eliminating shift work where possible
 - Promote work environments and wellness programs that encourage healthy sleep and mental health
 - Provide health insurance that covers programs to promote sleep health and affords the opportunity to monitor potential mental health benefits
- *Policy Makers:*

- Implement later school start times (8:30am or later), especially for high school students, to align with the natural sleep rhythms of adolescents
- Implement regular, scheduled nap periods for daycare, early learning, and pre-school programs to provide adequate 24-hour sleep for young children
- Develop policy around sleep health promotion in residential and inpatient facilities
- Recommend and implement work hour policies that prioritize sleep in industries that serve the public (e.g., medicine, transportation)
- Develop policies to promote sleep health and mental well-being in the armed forces
- Eliminate daylight saving time in favor of permanent standard time
- Improve the built environment (lighting, noise, safety) and address the sociocultural context for existing sleep health disparities
- *Industry:*
 - Support research on interventions that can improve outcomes in sleep health and associated mental health
 - Advance the science of digital tools for the promotion of both sleep health and mental health
 - Incorporate sleep science into accessible products that can benefit sleep health and mental health
- *Funding Agencies and Organizations:*
 - Increase funding for research into the association between sleep health and mental health particularly in underserved/marginalized populations for whom sleep and mental health disparities exist
 - Support efforts to identify social determinants, disparities or disproportionate effects of inadequate sleep on mental health
 - Enhance funding for nontraditional research partners, i.e., nonprofit organizations and community-based organizations, to translate discoveries to the public

Basis for Action: The United States is in the midst of a mental health crisis. The US Surgeon General, along with Centers for Disease Control and Prevention (CDC) and National Institutes of Health, has indicated that the “mental health crisis” is among the biggest health challenges facing the United States.²

Background: A strong body of evidence suggests poor sleep significantly contributes to the development and exacerbation of mental health conditions such as depression, anxiety, posttraumatic stress disorder, bipolar disorder and suicidality.³ Persistent poor sleep health can negatively affect mood, cognition, and overall emotional well-being.⁴ Conversely, untreated mental health conditions can impair sleep quality and quantity, creating a vicious cycle of sleep disruption and worsening mental health symptoms. While historically, it was assumed that mental health difficulties led to problems sleeping, recent developments confirm a bidirectional association between sleep and mental health concerns such that poor sleep is known to contribute to the onset, recurrence, and maintenance of mental health conditions.^{5,6,7} The bidirectional nature of the association between sleep and mental health is supported by intervention studies demonstrating that when mood disturbances are treated, sleep improves and when sleep difficulties are treated, mood symptoms improve.^{7,6,8} Importantly, the majority of what we know about sleep and mental health is based on evidence derived from individuals with either a sleep disorder, mental health condition, or both, and this knowledge from clinical samples may not generalize to the general population.

National Sleep Foundation’s 2023 and 2024 *Sleep in America*® (SIA) Polls: In national, probability-based samples of adults (1,042) and teenagers (1,138), the National Sleep Foundation found strong associations between sleep health characteristics and depressive symptoms⁹ across the lifespan. For example: (1) Half of all adults and over 40% of teens who reported sleeping less than NSF recommended levels¹⁰ per weekday night also reported mild or greater levels of depressive symptoms, (2) Nearly 7 out of 10 adults and teens who were dissatisfied with their sleep also experienced mild or greater levels of depressive symptoms, (3) Nearly 2 in 5 adults and 1 in 2 teens who had difficulty falling

asleep or staying asleep just 2 days a week or more reported mild or greater levels of depressive symptoms, and (4) Over 90% of adults and teens who graded in the ‘A’ range for sleep health¹¹ and sleep satisfaction¹² reported none/minimal levels of depressive symptoms.

Addressing sleep health disparities in the link between sleep health and mental health: Health disparities refer to differences in health outcomes and access to healthcare services that are systematically tied to social, economic, and environmental inequities (e.g., medically underserved communities). Health disparities can further worsen the already existing burden of mental health conditions among certain populations. Several studies have shown the association between sleep and health outcomes differs across racial/ethnic groups.¹³ For example, the 2023 SIA Poll found the negative association between sleep health and levels of depressive symptoms was greater for Black individuals than for either White or Hispanic individuals. As our understanding of these complex issues continues to evolve, multidisciplinary approaches and perspectives will inform a more comprehensive understanding of the relationship between sleep health and mental health. Furthermore, in addition efforts focused on the individual, interventions are needed that address broader macro societal factors that are a barrier to healthy sleep for marginalized individuals.

Conclusion: It is the position of the National Sleep Foundation that getting enough quality sleep is essential to mental health and well-being for all persons at all ages. Research continues to underscore a bidirectional relationship between sleep and mental health where inadequate sleep and sleep disruption can be both a cause and effect of mental health problems. Recent population-level data suggest good sleep health, sleep duration, sleep satisfaction, and the practice of healthy sleep behaviors are clearly associated with less severe symptoms of depression. As supported by National Sleep Foundation’s 2023 and 2024 *Sleep In America*® Polls, there is a significant need for greater emphasis on the link between sleep health and mental health in the general population of adults and teenagers. This critical association is not limited to people who have diagnosed sleep or mental health conditions. Efforts to incorporate these recommendations in healthcare systems, educational and government organizations, employment settings, public policy, industry, and funding agencies and organizations will help address the mental health crisis and promote the health of the nation.

¹ Bernert, R. A., Kim, J. S., Iwata, N. G., & Perlis, M. L. (2015). Sleep disturbances as an evidence-based suicide risk factor. *Current psychiatry reports*, 17(3), 554.

² Office of the Surgeon General (OSG). Protecting Youth Mental Health: The U.S. Surgeon General’s Advisory [Internet]. Washington (DC): US Department of Health and Human Services; 2021. INTRODUCTION FROM THE SURGEON GENERAL. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK575980/>

³ Simmons Z, Burlingame G, Korbanka J, et al. Insomnia symptom severity is associated with increased suicidality and death by suicide in a sample of patients with psychiatric disorders. *Sleep*. 2021;44(7):zsab032. doi:10.1093/sleep/zsab032

⁴ Palmer, C. A., Bower, J. L., Cho, K. W., Clementi, M. A., Lau, S., Oosterhoff, B., & Alfano, C. A. (2023). Sleep loss and emotion: A systematic review and meta-analysis of over 50 years of experimental research. *Psychological Bulletin*. Advance online publication. <https://doi.org/10.1037/bul0000410>

⁵ Fang H, Tu S, Sheng J, Shao A. Depression in sleep disturbance: A review on a bidirectional relationship, mechanisms and treatment. *J Cell Mol Med*. 2019;23(4):2324-2332. doi:10.1111/jcmm.14170

⁶ Baglioni C., Nanovska S., Regen W., Spiegelhalter K., Feige B., Nissen C., et al. Sleep and mental disorders: a meta-analysis of polysomnographic research. *Psychol Bull*. 2016;142(9):969.

⁷ Scott AJ, Webb TL, Martyn-St James M, Rowse G, Weich S. Improving sleep quality leads to better mental health: A meta-analysis of randomised controlled trials. *Sleep Med Rev*. 2021; 60:101556. doi: 10.1016/j.smr.2021.101556

⁸ Talbot LS, Stone S, Gruber J, Hairston IS, Eidelman P, Harvey AG. A test of the bidirectional association between sleep and mood in bipolar disorder and insomnia. *J Abnorm Psychol*. 2012;121(1):39-50. doi:10.1037/a0024946

⁹ Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med*. 2001 Sep;16(9):606-13. doi: 10.1046/j.1525-1497.2001.016009606.x. PMID: 11556941; PMCID: PMC1495268.

¹⁰ Hirshkowitz M, Whiton K, Albert SM, et al. National Sleep Foundation’s updated sleep duration recommendations: final report. *Sleep Health*. 2015;1(4):233-243. doi:10.1016/j.sleh.2015.10.004

¹¹ Knutson KL, Phelan J, Paskow MJ, Roach A, Whiton K, Langer G, Hillygus DS, Mokrzycki M, Broughton WA, Chokroverty S, Lichstein KL, Weaver TE, Hirshkowitz M. The National Sleep Foundation’s Sleep Health Index. *Sleep Health*. 2017 Aug;3(4): 234-240. doi: 10.1016/j.sleh.2017.05.011. Epub 2017 Jun 20. PMID: 28709508.

¹² Ohayon MM, Paskow M, Roach A, Filer C, Hillygus DS, Chen MC, Langer G, Hirshkowitz M; National Sleep Foundation Sleep Satisfaction Consensus Panel. The National Sleep Foundation’s Sleep Satisfaction Tool. *Sleep Health*. 2019 Feb;5(1):5-11. doi: 10.1016/j.sleh.2018.10.003. Epub 2018 Oct 19. PMID: 30670166

¹³ Williams NJ, Grandner MA, Snipes A, et al. Racial/ethnic disparities in sleep health and health care: importance of the sociocultural context. *Sleep Health*. 2015;1(1):28-35. doi: 10.1016/j.sleh.2014.12.004