The most common sleep disorder is insomnia, which is characterized by a difficulty falling or staying asleep.



CE

CONTINUING EDUCATION DIAGNOSING AND TREATING SLEEP DISORDERS

BY KIRSTEN WEIR

Psychologists have a leading role to play in treating insomnia and other common sleep disturbances.

Sleep is a biological necessity. But for all its importance, it can be surprisingly hard to get enough. As many as 50 to 70 million U.S. adults have a sleep disorder, according to the American Sleep Association. Those disorders frequently go hand in hand with problems such as depression, anxiety, and post-traumatic stress disorder (PTSD). "Sleep disorders are very common and are often comorbid with mental health conditions. But psychologists get very little training in sleep," said Jennifer Mundt, PhD, director of the Northwestern University Behavioral Sleep Medicine Training Program, who presented the continuing-education session "Sleep and Its Disorders: A Primer for Mental Health Professionals" for APA in 2021.

CE credits: 1

Learning objectives: After reading this article, CE candidates will be able to:

1. Describe symptoms of common sleep disorders.
2. Understand and access tools available for screening clients for sleep disorders.
3. Describe evidence-based behavioral treatments for insomnia and other sleep disorders.
4. Know when to refer clients to sleep specialists.

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In a recent survey of clinical psychologists in the United States and Canada, practitioners reported a median of just 10 hours of sleep training across their education and career, and 95% reported no clinical sleep training during graduate school, internship, or fellowship (Zhou, E. S., et al., *Behavioral Sleep Medicine*, Vol. 19, No. 6, 2021). "In medicine, psychology, and society as a whole, we've paid so little attention to sleep for so long," Mundt said.

It is time to start paying attention, Mundt and other sleep experts say. "Sleep is critical to physical and emotional health, and when it's disrupted, it cuts across both," said Susan Rubman, PhD, a behavioral sleep medicine specialist and assistant professor of psychiatry at the Yale School of Medicine. "As a basic part of psychological assessment, it's important to know what normal sleep is and what disordered sleep is so you can treat all aspects of an individual's concerns appropriately."

SLEEP FACTS AND FICTIONS

Sleep disorders come in all shapes and sizes. The most common is insomnia, which is characterized by difficulty falling or staying asleep. About 30% of adults in the United States have symptoms of insomnia, and about 10% have insomnia that is severe enough to cause daytime consequences, according to the American Academy of Sleep Medicine (AASM). And insomnia comes with a host of complications, including increased risk of accidents, poor performance at work or school, and elevated risk of conditions including high blood pressure, heart disease, depression, and substance use disorders. It is also associated with an increased risk of suicide as well as death from other causes.

Insomnia and other sleep disorders often coexist with other psychological complaints. Up to 90% of people with depression have sleep complaints, and two thirds of people undergoing a major depressive episode experience insomnia, according to a review by University of Pittsburgh researchers Peter Franzen, PhD, and Daniel Buysse, MD. Sleep disturbances often precede depressive symptoms, they found, and are associated with worse clinical and treatment outcomes among people with depression (*Dialogues in Clinical Neuroscience*, Vol. 10, No. 4, 2008).

All that is to say that clinical psychologists are certain to treat patients who have trouble sleeping whether they know it or not. And there are three good reasons to address sleep in practice, said Michael Grandner, PhD, MTR, director of the Sleep and Health Research Program at the University of Arizona. "First, we know that sleep affects health and functioning. Second, sleep is often a way into mental health issues. Asking how

someone is sleeping is a great way to start talking about mental health," he said. "And the third reason is that sleep problems are highly fixable, without medications. And psychologists are in a prime position to fix them."

Yet there are some common misconceptions about sleep—among the public as well as health care professionals—that prevent people from getting the treatment they need for insomnia and other sleep disorders. One is the belief that good sleep hygiene can cure disordered sleep, Grandner said. Sleep hygiene includes practices like going to bed and waking up at a consistent time, removing electronic devices from the bedroom, and avoiding caffeine, alcohol, and heavy meals near bedtime. While these efforts can improve sleep, they are not a treatment for disordered sleep. "A lot of people confuse sleep hygiene with behavioral sleep therapies. This is a huge misconception," Grandner said. Hygiene, by nature, is preventive. "Washing your hands can prevent you from getting sick, but it won't cure an infection. And sleep hygiene can remove some barriers to good sleep, but it's mostly useless for fixing insomnia," he added.

Another fallacy is that insomnia is a symptom of mental health disorders. While the two often coexist, they are best thought of as comorbid conditions, said Michael Perlis, PhD, director of the Behavioral Sleep Medicine Program at the University of Pennsylvania Perelman School of Medicine. "When sleep disorders are viewed as a symptom of an illness, people believe there's no need for targeted action. They believe that by treating the PTSD, anxiety, or depression, insomnia will abate. The past 10 years of research shows us that doesn't happen," he said.

FURTHER READING

Cognitive behavioral treatment of insomnia
Perlis, M. L., et al.
Springer, 2005

Principles and practice of sleep medicine, 7th edition
Kryger, M. H., et al.
Elsevier, 2022

Behavioral treatments for sleep disorders
Perlis, M., et al. (Eds.)
Elsevier, 2011

Treatment plans and interventions for insomnia: A case formulation approach
Manber, R., & Carney, C. E.
Guilford Press, 2015

Emily Grace and the what-ifs: A story for children about nighttime fears
Gehring, L. B.
Magination Press, 2016



While treating mental health conditions does not guarantee improvement of comorbid insomnia, the reverse is more likely: Treating insomnia can make mental health disorders more manageable. A meta-analysis of randomized controlled trials showed that poor sleep is causally related to mental health difficulties and that greater improvements in sleep quality lead to greater improvements in mental health (Scott, A. J., et al., *Sleep Medicine Reviews*, Vol. 60, 2021). For that reason, some sleep experts argue that insomnia should be treated even before other mental health problems, if the patient is not in crisis. "When insomnia is left alive, it complicates the treatment of everything else," said Donn Posner, PhD, adjunct clinical associate professor at Stanford University School of Medicine and founder of Sleepwell Consultants, which offers sleep interventions for patients and workshops for providers. "Every time you see chronic insomnia, you need to treat it."

CBT-I: FRONT-LINE INSOMNIA TREATMENT

Almost anything can trigger a night of tossing and turning, from stress to pain to stormy weather. "There are a million causes of short-term insomnia. But there is one main culprit behind chronic



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Nightmares are a common sleep complaint, especially among those who have been exposed to trauma.

insomnia—conditioned arousal," said Grandner. "When sleep becomes problematic, the bed becomes the war zone. And then the expectation that sleep will be stressful creates the very activation that makes sleep difficult."

The best treatment to address that conditioned arousal is cognitive behavioral therapy for insomnia (CBT-I), a targeted intervention that typically lasts four to eight sessions. In fact, CBT-I is one of psychology's best success stories. The treatment is so effective that it is recommended as a front-line treatment for insomnia by a variety of professional groups, including the Department of Veterans Affairs/Department of Defense Health Affairs, the American College of Physicians, and the AASM.

Even in cases of short-term insomnia, CBT-I is about as effective as sleeping pills. In a meta-analysis that included 21 studies, researchers concluded that behavioral therapy produces similar outcomes as pharmacotherapy for the acute treatment of primary insomnia (Smith, M. T., et al., *The American Journal of Psychiatry*, Vol. 159, No. 1, 2002). But for chronic insomnia, CBT-I is at a distinct advantage. A meta-analysis concluded that the intervention is an effective treatment for adults with chronic insomnia, with clinically meaningful effect sizes (Trauer, J. M., et al., *Annals of Internal Medicine*, Vol. 163, No. 3, 2015). "In the long term, there's an advantage for CBT-I because it actually addresses the underlying behavioral and thought patterns that perpetuate the insomnia," Mundt said. "And it has a high rate of success."

CBT-I is also a successful option for patients with insomnia and depression. In a study of internet-delivered CBT-I, Kerstin Blom, PhD, at the Karolinska Institutet in Sweden, and colleagues found that in patients with both diagnoses, CBT-I was more effective than CBT for depression when treating insomnia. More surprising, the two were equally effective for reducing depression severity. At a 3-year follow-up, both the CBT-I and CBT for depression groups continued to experience similar reductions in depression severity, but the insomnia treatment continued to have superior effects on sleep (*Sleep*, Vol. 38, No. 2, 2015; *Sleep*, Vol. 40, No. 8, 2017).

Other research also supports the idea that CBT-I can improve depression. A systematic review of 18 studies concluded that CBT-I is a promising treatment for depression in people who also have insomnia and produces effects of roughly the same magnitude as antidepressant medications. In-person therapy had the most evidence supporting its efficacy, while evidence for telehealth CBT-I was mixed. However, the authors concluded there is promise for a stepped-care approach in which telehealth progresses to in-person therapy for patients as needed (Cunningham, J. E. A., & Shapiro, C. M., *Journal of Psychosomatic Research*, Vol. 106, 2018).

There's further evidence that treating insomnia might even prevent depression from developing

in the first place. In a study by researchers at Henry Ford Health and the University of Oxford, participants with insomnia were randomized to receive either digital CBT-I or sleep education. In those with minimal to no depression at baseline, the incidence of moderate-to-severe depression 1 year later was reduced by half in the CBT-I group compared with the sleep education control condition (Cheng, P., et al., *Sleep*, Vol. 42, No. 10, 2019).

Research also supports the use of CBT-I in patients with insomnia and other mental health conditions. One randomized trial by Lisa Talbot, PhD, at the San Francisco VA Medical Center, and colleagues found that an eight-session CBT-I intervention improved sleep and overall psychosocial functioning in people with PTSD compared with participants in a waiting list control group. There was also some evidence that CBT-I may reduce the frequency of nightmares in people with PTSD (*Sleep*, Vol. 37, No. 2, 2014).

Meanwhile, Grandner and colleagues explored the connection between COVID-19 pandemic–related stress and anxiety, suicidal ideation, and sleep. They found that COVID anxiety was correlated with suicidal ideation—but that association was fully accounted for by insomnia severity. Treating the insomnia, in other words, may help to reduce suicide risk in people with high stress or anxiety (*Psychiatry Research*, Vol. 290, No. 113124, 2020).

RECOGNIZING OTHER SLEEP DISORDERS

Insomnia, while common, is hardly the only sleep disorder that psychologists are likely to encounter in their practice. About 25 million adults in the United States—more than a quarter of adults ages 30 to 70—have obstructive sleep apnea, according to the AASM. This disorder occurs when muscles in the throat relax, blocking the airway. People with obstructive sleep apnea repeatedly stop breathing for short periods during sleep, disrupting sleep continuity and causing daytime fatigue. Untreated, sleep apnea can increase the risk of serious conditions, including diabetes, heart disease, and mood and psychiatric disorders.

The front-line treatment for obstructive sleep apnea is positive airway pressure (PAP), a face mask device that pushes air into the airway to keep it open during sleep. While PAP treatment is effective, adherence can be an issue. Psychologists can help patients learn to tolerate the device. "People who specialize in behavioral sleep medicine can help with adherence and anxiety for PAP. When patients are struggling to wear the mask or have anxiety or claustrophobia, we can use exposure treatments to help them get comfortable using the device," Mundt said.

Nightmares are another common complaint, especially in people who have been exposed to trauma. Counter to popular belief, nightmares are treatable. Imagery rehearsal therapy (IRT) is one of the most used and well-supported interventions for nightmares in people with PTSD, and several protocols are available. A meta-analysis of these cognitive behavioral interventions found IRT had large effects on the frequency of nightmares, sleep quality, and PTSD symptoms. Further, the combination of IRT and CBT-I resulted in even greater improvements in sleep quality (Casement, M. D., & Swanson, L. M., *Clinical Psychology Review*, Vol. 32, No. 6, 2012). "It's helpful to ask patients about nightmares because they are so common, especially with trauma," Mundt said. "And patients aren't necessarily going to bring them up, because they don't even know that treatments are out there."

Another challenging condition is hypersomnia, which causes excessive sleepiness even after a full night's sleep. Examples of central disorders with hypersomnolence include conditions such as narcolepsy and Kleine-Levin syndrome, a rare disorder that causes excessive sleep, hunger, and behavioral changes. Hypersomnia can also be idiopathic, meaning it has no known cause. Secondary hypersomnia can be associated with certain medical disorders (such as epilepsy, hypothyroidism, or nervous system disorders), mood disorders such as depression and bipolar disorder, or other causes, such as side

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MICHAEL GRANDNER, PHD, MTR, UNIVERSITY OF ARIZONA

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Another sleep condition many patients struggle with is hypersomnia, which causes excessive sleepiness even after a full night's sleep.

effects from medications. "These disorders are less common, but they frequently go undiagnosed or misdiagnosed for years," Mundt said.

She and her colleagues are developing a cognitive behavioral therapy for hypersomnia (CBT-H). An initial pilot study suggested the treatment may reduce depressive symptoms and improve self-efficacy in people with hypersomnia and coexisting depression (Ong, J. C., et al., *Journal of Clinical Sleep Medicine*, Vol. 16, No. 12, 2020). "The main treatment for hypersomnia is medication to help with alertness. This is an adjunctive treatment to address the psychosocial impacts of hypersomnia," Mundt said.

"There's often comorbid depression and anxiety and issues with stigma and navigating work and relationships. CBT-H is designed to help people deal with those challenges."

SLEEP TRAINING FOR PSYCHOLOGISTS

Given the frequency of sleep disruption in the general population—and among people with mental health disorders in particular—it is important for clinicians to recognize the signs. Clinical psychologists should make a point to inquire about their patients' sleep habits, Grandner said. "Sleep problems are part of practically every diagnosis in the DSM," he said.

Yet it is also important to recognize that treating insomnia and other sleep disorders requires specialized training. For psychologists who are trained in CBT, learning CBT-I is not especially difficult, Grandner said. "The treatment is highly manualized, and you don't need to be board certified in behavioral sleep medicine to become competent in CBT-I." However, being competent in CBT-I does require training in principles of sleep medicine that go beyond the traditional behavioral and cognitive tools, and various training options are available online and in person at institutions such as the University of Pennsylvania, University of Oxford, University of Arizona, and others. (See Screening Tools and Other Resources.)

SCREENING TOOLS AND OTHER RESOURCES

Epworth sleepiness scale
(Johns, M. W., *Sleep*, Vol. 14, No. 6, 1991)

Insomnia Severity Index
(Morin, C. M., et al., *Sleep*, Vol. 34, No. 5, 2011)

Sleep Disorders Symptom Checklist-25
(Klingman, K. J., et al., *Sleep Medicine Research*, Vol. 8, No. 1, 2017)

STOP-Bang questionnaire for sleep apnea
(Tan, A., et al., *Sleep Medicine*, Vol. 27–28, 2016)

Society of Behavioral Sleep Medicine (resources, education, and provider directory)
https://behavioralsleep.org

International Directory of CBT-I Providers
https://cbti.directory

Web-based course in CBT-I
https://cbtiweb.org

Perlis and Posner, who lead training courses in CBT-I and are coauthors of a treatment manual on the intervention, argue that many more psychologists would benefit from these trainings—and so would their patients. Currently, most of the participants in Perlis's training courses come from allied fields such as social work and occupational therapy, he said. "We clinical psychologists designed CBT-I. We produced the evidence base. Why are we not the ones delivering it?" he asked. "We need more people in clinical psychology to come aboard and start seeking training."

Addressing sleep hygiene is something all clinicians can do with their patients. But sleep hygiene alone is not sufficient for treating clinically significant insomnia, Rubman said. If sleep problems persist for more than a few weeks, it is important to refer patients to a physician or psychologist who is certified in behavioral sleep medicine or has training in CBT-I. Too often, patients receive sleep education but do not improve, and then they mistakenly conclude that behavioral interventions didn't work for them and may turn to sleeping pills instead. That is a missed opportunity, since their insomnia is likely to improve or resolve if they are treated with CBT-I. "Clinicians need a good understanding of variations in normal sleep and the limits of sleep hygiene, and they need to recognize when to refer someone to a specialist," she said. "The goal is to intervene to prevent an acute problem from becoming a chronic problem." ■

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