

Insomnia: A Sleep-Stealing Disorder

Orli Juarez

Department of Psychology, Rhode Island College

PSYC 110H – 01

Dr. Jayson J. Spas

November 21, 2022

## **Insomnia Overview**

Anyone who's suffered from sleep deprivation has likely experienced some negative effects the next day. Tiredness, fatigue, and an inability to focus are just a few of them (Watson, 2021). These issues could make anyone's day challenging, but for those who struggle with insomnia, they can be a regular occurrence. Thomas Roth (2007) at The Journal of Clinical Sleep Medicine defines insomnia as difficulty falling asleep and staying asleep. Roth adds that "approximately 30% of a variety of adult samples drawn from different countries report one or more of the symptoms of insomnia." Eric Suni (2022) of the Sleep Foundation adds that this rate can vary among different groups, including the elderly, pregnant women, and teens. With different risk factors, treatments, and psychophysiological effects, insomnia is an issue that affects the world in more ways than one might think.

## **Etiology**

To understand this troublesome sleep disorder, one must begin by identifying the factors that cause it. Research done by Eric Suni (2022) finds that age, gender, preexisting medical conditions, and mental illness are some factors linked to this disorder. Two age groups Suni focuses on are the elderly and teens. According to Suni, "Insomnia occurs in 30-48% of older adults". Three reasons for this Suni provides are increased chronic health conditions, social isolation, and the use of medications. He adds that the elderly "spend less time in deep sleep and REM sleep, which makes it easier for their sleep to be disturbed."

On the other hand, up to 23.4% of teens also experience insomnia (Suni, 2022). Many of today's teens experience stress and anxiety, and unsurprisingly, both factors are linked to insomnia. A combination of late-night obligations for school and early start times means that teens, on average, aren't getting the necessary amount of sleep (Campbell, 2019). Technology

use before bed and caffeine consumption (Brazer, 2016) are common teen habits. Unfortunately, they are also linked with sleep problems. Additionally, teens who work part-time jobs or participate in after-school clubs often get home late, meaning that bedtime becomes “homework time” for many teens. Mary Helen Rogers, the Vice President of Marketing and Communications for the Better Sleep Council, has this to say on teens, homework, and sleep: “We’re finding that teenagers are experiencing this cycle where they sacrifice their sleep to spend extra time on homework, which gives them more stress – but they don’t get better grades” (“Teens, Sleep and Homework Survey Results,” 2018). Ironically, teens sacrifice their sleep to keep their grades up even when studies show that a healthy sleep schedule is directly linked to better academic performance. With rising rates of stress and anxiety in teens (“Anxiety in Teens Is Rising: What’s Going On?” n.d.), it is no surprise that insomnia is prevalent in teens as well.

Another factor linked to insomnia is pregnancy. An estimated 50% or more of pregnant women experience insomnia, according to Danielle Pacheco (2022) of the Sleep Foundation. Hormonal changes can cause general discomfort, nausea, and restless leg syndrome (RLS). RLS is defined as an uncomfortable sensation in which the urge to move the legs is uncontrollable. Although RLS affects more than pregnant women, studies show that up to a third of pregnant women are affected by it during their 3<sup>rd</sup> trimester. 1 in 5 pregnant women experiences obstructive sleep apnea (OSA), which Pacheco defines as “a sleep condition characterized by snoring, gasping, and repeated lapses in breathing that disrupt sleep quality.” Lastly, gastroesophageal reflux disease (GERD) can cause insomnia during pregnancy. The most common symptom of GERD is heartburn, or “a painful burning sensation in the chest” (Suni, 2022). Other symptoms include regurgitation and radiating chest pain. While many pregnant women experience symptoms of GERD, these tend to diminish after giving birth.

Lifestyle choices relating to diet and substance use can also cause insomnia. What do caffeine, nicotine, and cocaine have in common? They are all common stimulants, a type of drug known to “make a person feel more awake, alert, confident or energetic” (“Stimulants - Alcohol and Drug Foundation,” n.d.). However, while one is illegal in most states, the others can be bought in a convenience store. Data from the CDC shows that as of 2020, “nearly 13 of every 100 U.S. adults aged 18 years or older” smoked cigarettes. This is 12.5% of the U.S. population, or 30.8 million people (“Current Cigarette Smoking Among Adults in the United States,” 2022). Even more alarming, the U.S. Food and Drug Administration finds that “roughly 80% of U.S. adults consume caffeine every day” (“Caffeine & Long Work Hours | NIOSH | CDC,” n.d.). Like any stimulant, nicotine and caffeine can negatively impact one’s sleep and can potentially contribute to insomnia (Smith, 2021).

While a glass of wine before bed might seem like a relaxing way to end the night, excess alcohol use can worsen sleep (Pacheco, 2022b). “Alcohol is a central nervous system depressant that causes brain activity to slow down.” While alcohol can make a person feel relaxed and sleepy, too much can negatively affect the duration and quality of their sleep. For this reason, it is common for those with alcohol use disorders to experience insomnia symptoms. Pacheco adds that “alcohol’s impact on sleep largely depends on the individual.” The more alcohol a person drinks, the worse their sleep will be.

There is still yet another lifestyle choice linked to insomnia: poor diet. “A diet high in refined carbohydrates may raise the likelihood of developing insomnia, according to a 2019 study” (Paprocki, 2022). Consumption of refined carbohydrates leads to high blood sugar. As blood sugar rises and falls, symptoms of insomnia may develop. Also, studies show that eating big meals before bed can cause insomnia (Darisetty, 2022).

**Effects**

Insomnia can negatively impact one's overall quality of life (Roth, 2007). In multiple studies, insomniacs took a Short Form Health Survey, a questionnaire that assesses 8 domains of medical outcomes: physical functioning, role limitation due to physical health problems, bodily pain, general health perceptions, vitality, social functioning, role limitation due to emotional problems, and mental health. "Insomniacs reported decreased quality of life on virtually all dimensions," says Thomas Roth (2007). He adds that rates of accidents pose a huge daytime risk to insomniacs as they are 2.5 to 4.5 times more likely to have an accident.

Additionally, insomnia can negatively affect workplace productivity. Issues such as higher rates of absenteeism, decreased concentration, and difficulty performing duties are often found in insomniacs. One study found that "days restricted of activity due to illness and days spent in bed were twice as common" (Simon & Vonkorff). Also, mean total healthcare expenses were found to be 60% higher in the insomnia group. When someone suffers from insomnia, more than just their sleep is affected. They may experience problems with daytime functioning and overall wellness.

Studies show that insomnia can hurt the academic performance of students. Much like adults in the workplace, students with insomnia have trouble concentrating and performing tasks. Students can also experience academic and social frustration, making it hard to keep their grades up and maintain relationships (Zhao, 2019). One study found that insomnia led to decreased GPAs in college students, among other academic difficulties (Pagel, 2020). Test scores and GPA can impact a student's eligibility for scholarships. This pressure, piled on with sports and other activities, can lead to overall feelings of stress and anxiety. This combination can have detrimental effects on one's well-being.

## **Mental Illness and Insomnia**

When it comes to mental illnesses such as depression and anxiety, insomnia can be both a cause and an effect. According to the National Alliance on Mental Illness, “Approximately 50% of insomnia cases are related to depression, anxiety or psychological stress” (“Sleep Disorders | NAMI: National Alliance on Mental Illness,” n.d.). Anxiety is the most common mental health problem in the US, with depression being second. (Newsom, 2022). When treating someone with two or more of these conditions, it is important to understand not only each individual disorder but also how they connect.

Many people find themselves worried from time to time. These worries might revolve around health, money, or family problems (“Anxiety Disorders,” n.d.). When these thoughts persist and get worse over time, they constitute an anxiety disorder. Around 20% of adults suffer from anxiety disorders, as well as 25% of teens. Anxiety disorders fall into several categories, including generalized anxiety disorder, panic disorder, social anxiety disorder, and other phobia-related disorders. Symptoms of anxiety can be both physical and emotional, ranging from general feelings of nervousness to muscle tension and panic attacks (“Anxiety Disorders,” n.d.). These symptoms can impact a person’s ability to fall asleep or stay asleep, which is the definition of insomnia (Suni, 2022b). Insomnia can exacerbate the challenges of anxiety and create a negative cycle. Nightmares, for example, are often a result of anxious thoughts. They can disrupt a person’s sleep and make it hard to fall back asleep. This can lead to anticipatory anxiety around sleep itself. Nightmares are a common symptom of PTSD (Gehrman, n.d.), another type of anxiety. “90% of people with PTSD associated with military combat have reported symptoms of insomnia” (Suni, 2022b).

Depression is another mental health issue that can both cause and be caused by insomnia. Depression is more than simply “feeling sad”, although persistent sad moods are one symptom. Other symptoms include feelings of hopelessness, loss of interest in activities, and inability to concentrate (Newsom, 2022). Insomnia is also listed as a symptom of depression, although the relationship between the two is much more complex. Rob Newsom of the Sleep Foundation describes sleep problems and depression as having a bidirectional relationship. “This means that poor sleep can contribute to the development of depression and that having depression makes a person more likely to develop sleep issues. This complex relationship can make it challenging to know which came first, sleep issues or depression” (Newsom, 2022).

### **Treatment**

While insomnia still plagues many people, there are several treatment options available. Austin Meadows of the Sleep Foundation provides two objectives for chronic insomnia treatment: “improving sleep quality and duration and reducing associated daytime impairments”. There are treatments that involve drugs and others that do not. Cognitive Behavioral Therapy for Insomnia, or CBT-I, is a drug-free treatment. With the help of a trained psychologist, people with insomnia will identify what makes them anxious and then develop strategies to change their thinking. Through CBT-I, someone with insomnia can learn about their sleep patterns and how they can be affected by certain habits. The person can then adjust their lifestyle as needed.

While access to CBT-I is limited, there are techniques used in such programs that anyone can utilize. Relaxation techniques, for example, can be done with a therapist or without one. These techniques, including yoga, breathing exercises, and meditation can be used to calm the body and mind. This works through what Meadows refers to as “biofeedback”. “Biofeedback -

which helps you control different bodily functions based on your blood pressure, breathing and heart rates, and other metrics – can also be effective for reducing insomnia symptoms and improving sleep” (Meadows, 2022).

After trying a variety of different techniques, a person with insomnia may consult with their doctor about taking medications. These can all have varying side effects and are generally seen as a last resort for treating insomnia (Meadows, 2022). Benzodiazepines (BZD) are classified as psychoactive drugs and can have side effects ranging from short-term to long-term. According to Meadows, “BZDs are normally not recommended for long-term insomnia treatment because there is a high potential for abuse and dependence”. Nonbenzodiazepines(Z) are meant to provide similar relief for insomnia but do not have as many adverse side effects. While BZDs and Zs both require prescriptions, there are numerous over-the-counter medications available. “Certain over-the-counter antihistamines have sedating properties and can serve as sleep aids,” says Meadows. He adds that melatonin supplements can also help with sleep, but that it is important to consult with a doctor before trying any over-the-counter medication (Meadows, 2022).

### **Conclusion**

Insomnia affects about a third of the U.S. population and continues to be an issue for people of all ages. Insomnia can be caused by several different factors, including age, pregnancy, and medical conditions. When it comes to mental illness, insomnia can become part of an unfortunate cycle. Drug-free and drug-based treatments for insomnia are available, though one should consult with a doctor before trying medication. Insomnia has stolen the sleep of millions. It remains both a fascinating topic to study and a complex problem to solve.



### References

- Anxiety Disorders. (n.d.). Retrieved October 23, 2022, from <https://www.nimh.nih.gov/health/topics/anxiety-disorders>
- Anxiety in Teens is Rising: What's Going On? (n.d.). Retrieved October 1, 2022, from <https://www.healthychildren.org/English/health-issues/conditions/emotional-problems/Pages/Anxiety-Disorders.aspx>
- Brazier, Y. (2016, March 8). Adolescents drink too much caffeine. Retrieved September 29, 2022, from <https://www.medicalnewstoday.com/articles/307526>
- Caffeine & Long Work Hours | NIOSH | CDC. (n.d.). Retrieved October 1, 2022, from <https://www.cdc.gov/niosh/emres/longhourstraining/caffeine.html>
- Campbell, L. (2019, October 8). Is Your Teen Getting Enough Sleep? 73% Don't. Here's Why. Retrieved September 29, 2022, from <https://www.healthline.com/health-news/73-of-high-school-students-dont-get-enough-sleep>
- Current Cigarette Smoking Among Adults in the United States. (2022, August 22). Retrieved October 1, 2022, from [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/adult\\_data/cig\\_smoking/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm)
- Darissety, S. (2022, August 21). *Insomnia: Symptoms, Causes, Types, Diagnosis and Treatment*. Apollo Hospitals Blog. Retrieved October 4, 2022, from <https://healthlibrary.askapollo.com/disease/insomnia/>

- Gehrman, P. (n.d.). Sleep Problems in Veterans with PTSD | Veterans Affairs. Retrieved October 23, 2022, from [https://www.ptsd.va.gov/professional/treat/cooccurring/sleep\\_problems\\_vets.asp](https://www.ptsd.va.gov/professional/treat/cooccurring/sleep_problems_vets.asp)
- Meadows, A. (2022, August 29). Treatments for Insomnia | Sleep Foundation.
- Newsom, R. (2022, March 25). Depression and Sleep | Sleep Foundation. Retrieved October 23, 2022, from <https://www.sleepfoundation.org/mental-health/depression-and-sleep>
- Pacheco, D. (2022b, September 19). Alcohol and Sleep. Retrieved October 2, 2022, from <https://www.sleepfoundation.org/nutrition/alcohol-and-sleep>
- Pacheco, D. (2022, September 19). Caffeine and Sleep. Retrieved September 29, 2022, from <https://www.sleepfoundation.org/nutrition/caffeine-and-sleep>
- Pacheco, D. (2022a, April 5). Pregnancy and Sleep. Retrieved October 1, 2022, from <https://www.sleepfoundation.org/pregnancy>
- Pagel, J. (2020, February 27). Insomnia significantly affects the school performance of college students. Retrieved October 10, 2022, from <https://aasm.org/insomnia-significantly-affects-the-school-performance-of-college-students/>
- Paprocki, J. (2022, July 12). Insomnia and your diet. Retrieved October 2, 2022, from <https://sleepeducation.org/insomnia-your-diet/>
- Roth T. (2007). Insomnia: definition, prevalence, etiology, and consequences. *Journal of clinical sleep medicine: JCSM: official publication of the American Academy of Sleep Medicine*, 3(5 Suppl), S7–S10.
- Simon GE, VonKorff M. Prevalence, burden, and treatment of insomnia in primary care. *Am J Psychiatry* 1997;154:1417-23.

Sivertsen, B., Vedaa, Ø., Harvey, A. G., Glozier, N., Pallesen, S., Aarø, L. E., Lønning, K. J., &

Hysing, M. (2019). Sleep patterns and insomnia in young adults: A national survey of Norwegian university students. *Journal of sleep research*, 28(2), e12790.

<https://doi.org/10.1111/jsr.12790>

Sleep Disorders | NAMI: National Alliance on Mental Illness. (n.d.). Retrieved October 23,

2022, from <https://nami.org/About-Mental-Illness/Common-with-Mental-Illness/Sleep-Disorders>

Smith, Y. B. (2021, February 17). Stimulants and Sleep. Retrieved October 1, 2022, from

<https://www.news-medical.net/health/Stimulants-and-Sleep.aspx>

Stores G. (2009). *Insomnia and other adult sleep problems: the facts*. Oxford University Press.

Suni, E. (2022b, September 16). Anxiety and Sleep | Sleep Foundation. Retrieved October 23,

2022, from <https://www.sleepfoundation.org/mental-health/anxiety-and-sleep>

Suni, E. (2022, August 29). *What causes insomnia?* Sleep Foundation. Retrieved September 28,

2022, from <https://www.sleepfoundation.org/insomnia/what-causes-insomnia>

Suni, E. (2022, September 9). GERD and Sleep. Retrieved October 1, 2022, from

<https://www.sleepfoundation.org/physical-health/gerd-and-sleep>

Stimulants - Alcohol and Drug Foundation. (n.d.). Retrieved October 1, 2022, from

<https://adf.org.au/drug-facts/stimulants/>

Teens, Sleep and Homework Survey Results. (2018, December 12). Retrieved October 1, 2022,

from <https://bettersleep.org/press/press-releases/teens-sleep-and-homework-survey-results/>

Watson, S. (2021, December 15). The Effects of Sleep Deprivation on Your Body. Healthline.

Retrieved September 26, 2022, from <https://www.healthline.com/health/sleep-deprivation/effects-on-body>

Zhao, K. (2019, June 1). The relationship between insomnia symptoms and school performance among 4966 adolescents in Shanghai, China. Retrieved October 10, 2022, from

[https://www.sleephealthjournal.org/article/S2352-7218\(18\)30251-1/pdf](https://www.sleephealthjournal.org/article/S2352-7218(18)30251-1/pdf)