

What Are the Myths of Sleep vs. The Facts?

Anonymous

Department of English, Anoka Ramsey Community College

ENGL 1121: College Writing and Critical Reading

Prof. Chris McCarthy

March 29, 2024

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As the clock ticks past midnight and the world around me fades, I find myself in a familiar yet frustrating dilemma once again: lying in bed, tossing and turning, longing to have a restful night. As I struggle to fall asleep, my mind wanders off the sleepy myths I have heard over the years, each one sounds promising to help with my insomnia. In our society, there's a common belief that our bodies can adjust to minimal sleep overtime, leading many to believe that sleep deprivation is something we can adapt to. However, this is a misconception that fails to recognize the significant impact of adequate rest on our overall health and well-being. Another ~~common~~ myth is that exercising before bedtime disrupts sleep patterns. This misconception was brought to my attention by a friend who warned me against late evening workouts, telling me about its potential negative effects on sleep quality. Despite her warning, I was skeptical due to my knowledge of lingering influence of superstitions that she might still have from our Burmese cultural beliefs. Similarly, the perception that alcohol helps you fall asleep was widespread during COVID-19 pandemic. However, while alcohol may initially induce drowsiness, its harmful effects on sleep disrupt your rest, leading to poor-quality rest. Despite what many believe about sleep, I think it is also important to understand the facts behind it. In contrast to these common beliefs, our bodies cannot adjust to getting less sleep overtime, and drinking a warm cup of milk might not always work. Also, exercising near bedtime doesn't necessarily disturb sleep patterns. In fact, there are some benefits. Understanding the facts about

sleep allows us to make informed choices that prioritize our well-being and develop healthier sleep habits for a more fulfilling life.

Sleep is a fundamental aspect of our well-being, yet it often gets confused by myths that can impact our understanding of its importance. One of the widespread myths I have heard is that “our bodies can adapt to a lack of sleep overtime.” However, research suggests otherwise, indicating that sleep deprivation can lead to a range of health effects, including increased risk of heart disease, diabetes and dementia. In the podcast *Science Vs.* (2023) episode titled “Sleep: How Do We Get More?” host Wendy Zukerman interviews with Pam DeYoung, who helps run a sleep lab at UC San Diego about what lack of sleep can do to our physical and mental health.

During the interview, DeYoung says,

A few years ago, a group of scientists were tasked with coming up with recommendations for the optimal amount of sleep that adults need. They combed through a few hundred studies that looked at people’s health and how much they slept. And they found that those who were getting 7-9 hours on the reg were the healthiest of bunch. While getting less than 7 hours was lined with some serious health conditions.

And then she continues, “Diabetes rates increase, immune suppression, weight gain, heart disease.” This emphasizes the critical importance of getting adequate sleep duration for maintaining your optimal health. The recommended 7-9 hours of sleep for adults appears to be linked to improved overall well-being. In addition, Sabia et al. (2021) found that,

Here we report higher dementia risk associated with a sleep duration of six hours or less at age 50 and 60, compared with a normal (7h) sleep duration, although this was imprecisely estimated for sleep duration at age 70[...] These findings suggest that short sleep duration in midlife is associated with an increased risk of late-onset dementia.

Growing up, I used to think functioning on lack of sleep was something only cool kids do, and I often prided myself that I could. However, personal experiences like being a mom and changes in my body as I age drastically changed my perspective on sleep. Nine years ago, as parents with a newborn, my husband and I were able to function on very little sleep. But now that I've gotten older, I noticed that bouncing back from sleep deprivation isn't as easy as it used to be, and the importance of a good sleep.

In addition, my mom used to say, "Stay in bed and count the sheep. You'll fall asleep." This was something I heard as a kid every time I had trouble falling asleep, a common thing Burmese moms used to say. I'd be tossing and turning in bed counting, but still having a hard time. I continue to cling on to this idea as an adult, however, my experience remains the same. The more I try, the harder it is for me to sleep. The thing is if you can't doze off after twenty minutes, you are supposed to get up. According to Brandon Peters (2024), a neurologist and sleep medicine specialist,

If you have insomnia, you may be lying awake in bed for hours every night. The longer you're awake, the more anxious you feel, and the less likely you are to fall asleep. When this happens, the best strategy is to get up for a while and only go back to bed when you feel sleepy. Reserving your bed as a sleep-only space can be a powerful strategy to break your insomnia cycle.

For me, it is important that I get out of my bed if I can't fall asleep after twenty minutes. This isn't just about breaking the insomnia cycle but it's also to make sure my brain doesn't associate my bed with negativity. Instead, I try to do calming activities like listening to relaxing music or meditating. I avoid activities that would stimulate my brain such as using my phone. By following these routines, I find my mind and body more relaxed, which makes it easier to fall asleep.

There is a common misconception I often heard (and practiced) growing up in Burma, especially among teenagers: “The key to a good night’s sleep depends on the hours of sleep you get. Doesn't matter what time you went to bed.” However, my perspective changed as I am older and became a parent, I’ve come to realize that both the quality and quantity of sleep matter. According to Nelson, Davis, and Corbett (2022), “Sleep quality is vital to health, and the cumulative long-term effects of poor sleep quality are associated with numerous serious health outcomes such as diabetes, cardio-vascular disease, depression, anxiety, heart attack, obesity, and stroke.” This shows how important sleep quality is for your overall well-being. They also define sleep quality in the study as “sleep quality is defined as individual’s self-satisfaction with all aspect of sleep experience that can be measured by the following variables: sleep efficiency, sleep latency, WASO, and sleep architecture measures.” I also used to believe naps interfere with nighttime sleep, but I recently learned that they offer many cognitive benefits and improve our overall well-being. In their research, Lovato and Lack (2010) explain, “[...] Naps can reduce sleepiness and improve cognitive performance. The benefits of brief (5–15 min) naps are almost immediate after the nap and last a limited period (1–3 h). [...]” As someone with insomnia, I usually don’t get enough hours of sleep, leading to fatigue, overworked brain, and weak memory. Recently, I started to add twenty-minute naps to my weekend routines to see if anything improves, and I noticed some changes in my mental and physical health on those days, such as not waking up with a headache and feeling more energetic. What I learned from this experience is that the quality of sleep is just as important as the quantity, and to appreciate the power of short naps.

During the COVID-19 pandemic, many people, including my own friends, increased their alcohol consumption as a coping mechanism for stress and isolation. Their common excuse was “*to fall asleep.*” I was intrigued by their response as I also dealt with insomnia during that

period, I decided to learn whether the idea of alcohol before bed is a myth, or a fact? To see how timing of alcohol consumption affects sleep, Van Reen et al. (2011) study the sleep patterns of individuals who were given alcohol at four different times of day, across three levels of homeostatic load, during a 20-hour forced desynchrony (FD) protocol. Furthermore, Van Reen et al. (2011) report,

In summary, the effects of alcohol on sleep stage variables differ as a function of dose and timing relative to bedtime. With alcohol given close to nocturnal sleep time, studies find a reduction of sleep onset latency and reduced REM sleep. [...] Also of note is that the effects of alcohol on sleep appear to linger beyond the time alcohol is metabolized, and these residual effects occurred with alcohol given in the late afternoon.

This study tells us how alcohol affects your sleep. Drinking alcohol before bedtime can make you fall asleep faster but might reduce the quality of your deep sleep (REM). Curious about my friends' experiences, I asked how well they sleep through the night after having alcohol. The answers varied, with most of them describing feeling unrested when they wake up. In my opinion, while alcohol may induce initial sleep, it doesn't necessarily help you feel rested in the long run.

Additionally, I remember when my friend found out about my late-night exercises, she suggested they could disrupt my digestion and sleep. I didn't fully understand what she meant at the time until I heard this podcast episode from *LifeKit* titled "Popular myths about sleep, debunked" in *NPR* where the host Marielle Segarra (2024) interviews Rebecca Robbins, a sleep scientist at Brigham and Women's Hospital. One of the myths they discuss being "exercising within 4 hours of bedtime will disturb your sleep." During the episode, Segarra (2024) asks Robbins if exercising within four hours of bedtime will disturb your sleep is a myth, and here's what Robbins says:

This is a myth because we - we've really said for many, many years in sleep, avoid exercise close to bedtime. But we actually don't have any good data to back that up. [...] there are so many benefits of exercise, not only for our health and well-being or mental health or physical health, but also our sleep health. Those that exercise gets better sleep. They report deeper sleep, more restorative sleep, better sleep quality, less sleep fragmentation.

I normally don't do workouts late in the evenings due to schedules and energy levels. However, when I do, I've noticed that they don't interfere with my sleep. In fact, I often find myself sleeping better after working out late, particularly after swimming. I noticed this with my kids too. Exercising in general is beneficial for our overall well-being as we all know, and I believe that low intensity exercises like swimming help us sleep better as it tires your body and releases endorphins.

Throughout the years, my relationship with sleep has transformed, influenced by my cultural beliefs and personal experiences. Parenthood introduced new challenges and made me understand the importance of quality sleep for my overall well-being. I have questioned myths and looked for evidence-based facts to improve my sleep patterns. Through this I have gained more knowledge about sleep factors that can benefit me, such as taking naps or getting out of bed after twenty minutes of trying to sleep. Maybe I'll move my workout routine to the evening instead of the morning as well. One thing for sure is I will be prioritizing quality of sleep for my well-being and focusing on what works best for me. After all, a well-rested mind and body pave the way for a healthier, happier life. [OB]

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