

# Lack of sleep is harming health care workers—and their patients

May 17 2021, by Soomi Lee

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Many people often assume that health care providers are healthier than the general population. The COVID-19 pandemic, however, has shined a concerning light on the the physical and mental health of health care

workers—and their lack of sleep.

Poor sleep can harm well-being—it's been shown to be a strong risk factor for [cognitive decline and early mortality](#). I am an [expert in sleep and stress among middle-aged adults in the workplace](#), and my research has found that work-related stress influences sleep quantity and quality. And not only that—[poor sleep](#) may increase the risk of adverse health outcomes for both health care workers and their patients.

## **Sleep problems are common among health care workers**

Health care workers face many stressors, and many studies have shown that sleep plays a major role. For example, a [2016 review](#) of multiple studies on [sleep deprivation](#) among nurses found that 55% work over 40 hours a week and 30%-70% report getting fewer than six [hours of sleep](#) a night. My research, which focuses on nurses and direct-care workers, such as nursing assistants, personal care aides, and home health aides, has had similar findings. We found that [57% of direct-care workers](#) in a long-term care facility and [68% of nurses](#) in a cancer hospital reported experiencing insomnia symptoms like difficulty falling asleep and frequent nighttime awakenings.

Sleep issues are more prevalent in health care workers compared to workers in other industries. A [CDC report](#) on 2013-2014 data on 22 major occupation groups found health care support workers and practitioners had the second and third highest levels of short sleep duration—defined as less than seven hours—with 40% of these workers reporting short sleep. A [2018 study](#) found similar results, with health care support occupations continuing to rank second highest at 45%.

Sleep loss in health care workers also manifests in different forms. My collaborative research team compared the sleep quality of 1,220 direct-

care workers with 637 IT office employees using both self-report and [sleep actigraphy assessments](#), which is a method that objectively quantifies sleep and wake patterns based on movement. We found that [over 60%](#) of both groups experienced at least one sleep issue over the past month, such as sleep insufficiency, short sleep duration or more nighttime waking. However, direct-care workers had [poorer sleep characteristics](#) across multiple [sleep dimensions](#) that are critical for optimal functioning and health. These include regularity, satisfaction, alertness, timing, efficiency and duration.

## **Health care worker sleep problems can be costly**

Insomnia symptoms pose a significant public health and economic burden. In 2010, it was estimated that insomnia has cost U.S. workers an annual total of [252.7 days of lost productivity and US\\$63.2 billion](#).

For health care workers in particular, insufficient sleep duration, poor sleep quality and untreated insomnia may increase medical errors at the front lines. A 2020 study found that very high sleep-related impairment is associated with a [97% greater odds](#) of self-reported clinically significant medical errors among physicians. Sleep loss has also been associated with [lower patient safety and care quality ratings](#) among nurses.

Just one night of insufficient sleep can reduce cognitive performance by [as much as 25%](#). The effect of prolonged [sleep loss](#) on performance has even been [likened to alcohol impairment](#)—19 hours of sustained wakefulness has been found to be equivalent to a blood alcohol concentration of 0.05%, and 24 hours to 0.10%.

## **Sleep loss poses health risks for providers**

Sleep loss doesn't just hurt patients—it harms health care workers, too.

Many studies have found chronic sleep loss to [increase the risk of a number of conditions](#), including musculoskeletal injury, obesity, diabetes and cardiovascular disease. Nurses working rotating night shifts for over 15 years have been found to be [1.79 times](#) and [1.35 times](#) at risk to develop breast and colorectal cancer, respectively.

It's clear that the unique work conditions of health care workers, like [nonstandard hours](#), proximity to life-threatening disease and reduced autonomy, may make them more vulnerable to [sleep problems](#). Other factors like frequent interruptions during on-call sleep periods or shift work disruptions to normal sleep patterns can further exacerbate problems by [fragmenting sleep](#).

These stressful conditions may also be compounded by caregiving burdens in their own personal lives. Many nurses find themselves doing [double- and triple-care duty](#): Not only do they provide care to their patients at work, but they also continue to serve as caregivers for their own children and aging parents.

These stressful conditions can have a negative impact on their [mental health](#)—and even more so when adding on the challenges of dealing with a global pandemic.

## **How can we improve sleep quality for health care workers?**

Health care workers clearly understand they need help to improve their sleep. In a survey of health care workers at a hospital and assisted living facility, my team found that [92% of nurses](#) and [66% of direct-care workers](#) would participate in a sleep intervention if given the opportunity.

The challenge, however, is that sleep interventions are not one-size-fits-

all. One of my studies examined whether reducing work-related stressors, like work-family conflicts, by increasing employee schedule control and supervisor support would help improve sleep quality. Though this intervention [increased sleep duration among IT workers](#) by about one hour per week, there was [no improvement for direct-care workers](#). These findings suggest that different work environments can impose different sleep burdens on workers. Sleep interventions need to be specific to their targets.

Our next step was to figure out what kinds of sleep interventions would work best for health care workers. When we asked inpatient nurses what sleep interventions they preferred, [the majority](#) preferred mindfulness-based strategies over cognitive-behavioral therapy for insomnia and sleep hygiene education. [Mindfulness-based strategies](#) focus less on changing behavior and more on centering the individual in the present moment. By neutrally observing and accepting their thoughts and feelings, meditation practices may [improve insomnia symptoms](#) by decreasing physiological arousal and minimizing psychological factors like rumination.

This preference for mindfulness-based strategies may be attributed to a desire to reduce stress—nurses with insomnia symptoms reported [higher perceived stress](#). Greater problems with sleep have been seen to be closely related to [higher perceived stress](#) in a general adult sample.

The relationship between mindfulness and sleep is bidirectional. This means that they mutually affect each other—increasing mindfulness may improve sleep, and improved sleep may increase mindfulness. My team found that better nightly sleep for health care workers is associated with [higher mindfulness](#) the following day. As a practice that cultivates attention to and awareness of what is taking place in the present moment—a state of mind critical to providing care—these findings suggest that improving sleep may provide important benefits to patient

care delivery by increasing "mindful care."

## Health care workers can't lose any more sleep

Sleep is not just a personal issue. Many [social and cultural factors](#) directly impact sleep quality—and for health care workers, it's clear that their work environment is not conducive to healthy sleep.

Health care workers need sufficient sleep to efficiently and effectively deliver high-quality patient care. The high prevalence of [insomnia symptoms](#) among providers not only has worrying implications for the well-being of our health care workers, but the well-being of our [health care system](#) as a whole.

To support our [health care workers](#), we need to let them sleep.

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