

Poor sleep and stress exacerbate each other among nurses who work night shift, finds study

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Nurses who work the night shift report more sleep disturbances and are more likely to suffer from psychological and physical health symptoms

including PTSD, insomnia and inflammation, a recent study from an Oregon State University researcher found.

Though effective interventions exist for many different [sleep](#) disorders, including [insomnia](#) and [nightmares](#), those techniques are often not widely known or offered to patients such as [nurses](#), who could benefit from them.

"I think the main finding here is that sleep is important and should not be overlooked when we're considering the picture of someone's health, especially in fields that require a lot of attention and care and emotional involvement, like nursing," said Jesse Dietch, co-author on the study and an assistant professor of psychology in OSU's College of Liberal Arts.

The study, conducted in 2018, involved 392 nurses who reported their sleep experiences in daily sleep diaries for 14 days, noting duration, quality, efficiency—how long they were in bed versus how long they were asleep—and nightmare severity.

Researchers also took blood samples at the halfway point to test for general immune response and inflammation.

Based on the results, the researchers sorted participants into three sleep classes: 80.4% reported good overall sleep; 11.2% had poor overall sleep; and 8.4% were in the "nightmares only" group, with mostly average sleep but above average levels of nightmare severity.

They found that nurses in the poor overall sleep class were more likely to be recent [night-shift](#) workers than those in the good overall sleep class. They reported worse sleep quality along with more PTSD, more depression, more insomnia and more severe anxiety and perceived [stress](#) than those in the good overall sleep group.

Nurses in this group were also more likely to be Black. While Black nurses accounted for only 7% of the total sample, they comprised 23% of those in the poor overall sleep class. This is consistent with findings from other studies, Dietch said, and is linked to systemic racism.

"Experiences of discrimination are related to poor sleep health," she said, noting that socioeconomic factors and caregiving responsibilities among racial and ethnic minorities, outside of their working hours, can also play a part.

While the study took place before COVID-19, the pandemic has only increased nurses' workload and heightened the emotional toll, and it is very likely that sleep problems have become even more exacerbated, Dietch said.

"The pandemic has really highlighted the importance of caring for our caregivers, and I think sleep is an important place to look for doing that," she said.

Historically, Dietch said, the consensus was that sleep problems were a symptom of an underlying mental or physical health problem and treating that other health problem would solve the sleep disorder.

"But in the last 20 years or so this has been thoroughly debunked, at least in the sleep world," she said. "We know in a lot of cases, poor sleep health precedes mental and physical health problems, and even when that's not the case, if we treat the co-occurring health problem, the sleep health problems often don't go away."

Dietch hopes research like hers will help demonstrate the need for more health care providers trained in sleep disorders and treatments, such as cognitive behavioral therapy for insomnia.

"People don't know these treatments are out there and that they work really well, often better and faster than other mental health treatments, and we don't have enough providers," she said. "It's hard to get the word out."

Future research will look at how to mitigate the negative sleep effects for shift-working nurses, including individual-level interventions and stabilizing schedules at the systemic level, she said.

Provided by Oregon State University

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