

# Living in areas with less sun may increase your risk of OCD

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Living at higher latitudes, where there is also less sunlight, could result in a higher prevalence rate of obsessive compulsive disorder (OCD), according to new research from Binghamton University, State University

of New York.

"The results of this project are exciting because they provide additional evidence for a new way of thinking about OCD," said Meredith Coles, professor of psychology at Binghamton University. "Specifically, they show that living in areas with more sunlight is related to lower rates of OCD."

To compile their data, Coles and her research team read through many papers that addressed OCD prevalence rates in certain places and then recorded the latitudes of each location.

Individuals with OCD commonly report not being able to fall asleep until later than desired. Often times, they will then sleep in very late in order to compensate for that lost sleep, thus adopting a delayed sleep-wake pattern that may have adverse effects on their symptoms.

"This delayed sleep-wake pattern may reduce exposure to morning light, thereby potentially contributing to a misalignment between our internal biology and the external light-dark cycle," said Coles. "People who live in areas with less sunlight may have less opportunities to synchronize their circadian clock, leading to increased OCD symptoms."

This misalignment is more prevalent at higher latitudes—areas where there is reduced exposure to sunlight—which places people living in these locations at an increased risk for the development and worsening of OCD symptoms. These areas subsequently exhibit higher lifetime prevalence rates of the disorder than areas at lower latitudes.

While it is too soon to implement any specific treatment plans based on this new information, future studies are in the works to test a variety of treatment methods that address sleep and circadian rhythm disruptions.

"First, we are looking at relations between sleep timing and OCD symptoms repeatedly over time in order to begin to think about causal relationships," said Coles. "Second, we are measuring circadian rhythms directly by measuring levels of melatonin and having people wear watches that track their activity and rest periods. Finally, we are conducting research to better understand how sleep timing and OCD are related."

Additionally, the team of researchers hopes that further study exploring exposure to [morning light](#) could help develop new treatment recommendations that would benefit individuals with OCD.

The paper, "Obsessive Compulsive Disorder Prevalence Increases With Latitude," was published in the *Journal of Obsessive-Compulsive and Related Disorders*.

**More information:** Meredith E. Coles et al, Obsessive compulsive disorder prevalence increases with latitude, *Journal of Obsessive-Compulsive and Related Disorders* (2018). [DOI: 10.1016/j.jocrd.2018.04.001](#)

Provided by Binghamton University

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