

Study links shorter sleep durations with greater risks of mental distress in young adults

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Young adults who get fewer than eight hours of sleep per night have greater risks of psychological distress, a combination of high levels of depressive and anxious symptoms, according to a study in the Sept. 1 issue of the journal *Sleep*.

Using an average self-reported nightly sleep duration of eight to nine hours as a reference, the study found a linear association between sleep durations of less than eight hours and psychological distress in [young adults](#) between 17 and 24 years of age. The risk of psychological distress increased by 14 percent for each hour of nightly sleep loss, such that those sleeping less than six hours a night were twice as likely to be experiencing distress as average sleepers. A similar association was found between sleep duration and persistent psychological distress; the risk that a person with psychological distress at baseline would be distressed at the one-year follow-up increased by five percent for each hour of nightly sleep loss after adjusting for potential confounders (RR 1.05). Long sleep durations of more than nine hours showed no association with distress at any time point.

"In young adults already experiencing distress, the fewer hours they sleep the worse the outcome across the range of sleep hours," said lead author Nick Glozier, MBBS, MRCPsych, PhD, associate professor of psychological medicine at the Brain and Mind Research Institute and the Centre for Integrated Research and Understanding of Sleep (CIRUS) at

the University of Sydney in Australia.

The study also found that the risk for the onset of psychological distress was increased only in those young adults with extremely short sleep durations. Participants without psychological distress at baseline who reported sleeping five hours or less per night were three times more likely to be distressed one year later (RR 3.25).

"Short sleep duration increases the risk of a new onset of distress only among the very shortest sleepers, and doesn't appear to have a [psychological impact](#) in young adults in good mental health with moderately short sleep durations, such as seven hours a night" said Glozier.

In 2007 the U.S. Substance Abuse and Mental Health Services Administration estimated that 17.9 percent of young adults between the ages of 18 and 25 years experienced serious psychological distress in the past year. The Australian Bureau of Statistics reported that 26 percent of all young people between 16 and 24 years of age had a mental disorder in 2007.

Conducted at The George Institute for Global Health of the University of Sydney, the DRIVE study involved 20,822 young adults in New South Wales, Australia. Participants completed a confidential survey, reporting the number of hours slept on both weekday and weekend nights during the past month. The data were weighted to determine respondents' average nightly sleep duration. Thirty percent of participants slept for seven to eight hours per night, and 18 percent reported sleeping less than seven hours. Fewer than two percent of study subjects had an extremely short sleep duration of less than five hours per night.

Psychological distress was assessed using the Kessler Psychological Distress Scale (K10), a widely used 10-item screening instrument that

evaluates a person's mental health problems during the previous four weeks. It includes questions that ask about feeling tired, nervous, hopeless, restless, depressed, sad and worthless. A high score indicates that a person is likely to be suffering from a mental disorder. About 32.5 percent of young adults in the study had high levels of current psychological distress at baseline.

A randomly selected subsample of 2,937 participants completed a follow-up survey between 12 and 18 months after the baseline survey. A new onset of psychological distress was found in 239 of 1,992 participants (12 percent) who did not report psychological distress at baseline. Persistent psychological distress was found in 419 of 945 respondents (44 percent) who were distressed at baseline.

The authors noted that the relationship between sleep and psychological distress is complex. Although short sleep duration could be a real risk for distress, it is possible that [sleep loss](#) is a symptom of previous episodes of [psychological distress](#) that have got better, or that sleep disturbances reflect a comorbid condition that hinders distress from resolving. This study's findings suggest that recent increases in the levels of distress reported by young adults may be related to changes in their sleep patterns.

"The increased reporting of stress seen in many countries over the past decade or two in this young adult population may reflect lifestyle or other changes that lead to too few hours of sleep," Glozier said.

According to the authors, broad approaches to increase sleep duration in all young adults are unwarranted. Instead, interventions should target young adults who have either current distress or an extremely [short sleep](#) duration. Other studies show that potential targets for improving [sleep](#) in this age group include delaying school start times and reducing the amount of time at night that young adults spend watching TV, playing

video games and using the Internet before going to bed.

More information: “Short sleep duration in prevalent and persistent psychological distress in young adults: the DRIVE study,” *Sleep*.

Provided by American Academy of Sleep Medicine

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