

Sleep Loss May Boost False Memories

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July 24, 2014 -- People who don't get enough sleep may find they're more likely to form false memories, researchers say.

Psychologists say plenty of evidence shows that failing to get a full 8 hours of sleep harms thinking skills, but they wanted to see the effect on how we remember things.

"Recent studies are suggesting that people are getting fewer hours of sleep on average, and chronic sleep deprivation is on the rise," says psychological scientist Steven Frenda, of the University of California. "Over the years I noticed that whenever I had a bad night's sleep, my perception and memory seemed to get fuzzy until I had a good recovery sleep."

Pulling an All-Nighter

Frenda and his colleagues found that sleep-deprived people who viewed photographs of a crime being committed and then read false information about the photos were more likely to report remembering the false info in the photos than were those who got a full night's sleep.

The crime details were bogus, of course, and deliberately littered with false evidence. For instance, a written statement might say that a thief put a stolen wallet in his trouser pocket, whereas a photograph shows him putting it in his jacket pocket.

Over 100 students participated in the experiment, and they were split into four groups.

The volunteers in two of the groups were shown the series of photos as soon as they arrived at the laboratory. Those in one group were then allowed to sleep, while those in the other group had to stay awake all night in the lab.

The remaining two groups did things in the reverse order. They either slept or stayed awake all night and then viewed the crime photos in the morning.

Assessing Evidence

The researchers found that only those students who had been sleep deprived for all parts of the experiment were more likely to report the false details from the text narrative as having been present in the crime photos.

The students who viewed the photos before staying up all night, though, were no more susceptible to false memories than the students who'd been allowed to sleep.

"Our findings have implications for the reliability of eyewitnesses who may have experienced long periods of restricted or deprived sleep," Frenda says.

But more research is necessary, he says, before scientists can provide law enforcement agencies with evidence-based guidelines on how to best ensure that eyewitnesses' memories are accurate.

The findings are published in the journal *Psychological Science*.

SOURCES:

Frenda, S. *Psychological Science*, July 2014.

Press release, Association for Psychological Science.

http://www.webmd.com/sleep-disorders/news/20140724/sleep-loss-false-memories?ecd=wnl_slw_073114&ctr=wnl-slw-073114_nsl-promo_2&mb=fX8rxdS%40tzxsSWriAjTYouHnVev1imbC5BtYhTU5%2fzg%3d