

Contradictory findings about the effect of the full moon on sleep

July 8 2014, by Krister Svahn



According to folklore, the full moon affects human sleep. International researchers are trying to determine whether there is any truth to the belief. Studies by a team at Sahlgrenska Academy have found that people actually sleep 20 minutes less when the moon is full.

A Swiss research study conducted last year showed that the [full moon](#)

affects sleep. The findings demonstrated that people average 20 minutes less sleep, take five minutes longer to fall asleep and experience 30 minutes more of REM sleep, during which most dreaming is believed to occur.

Different outcome

Numerous studies through the years have attempted to prove or disprove the hypothesis that lunar phases affect human sleep. But results have been hard to repeat. A group of researchers at the famed Max Planck Institute and elsewhere analyzed data from more than 1,000 people and 26,000 nights of sleep, only to find no correlation.

International researchers are being urged to publish their results in hopes of getting to the bottom of the question. Michael Smith and his co-researchers at Sahlgrenska Academy have analyzed data generated by a previous sleep study and compared them with the lunar cycle.

20 minutes less sleep

Based on a study of 47 healthy 18-30 year-olds and published in *Current Biology*, the results support the theory that a correlation exists.

"Our study generated findings similar to the Swiss project," Michael Smith says. "Subjects slept an average of 20 minutes less and had more trouble falling asleep during the full moon phase. However, the greatest impact on REM sleep appeared to be during the new moon."

More susceptible brain

The retrospective study by the Gothenburg researchers suggests that the brain is more susceptible to external disturbances when the moon is full.

"The purpose of our original study was to examine the way that noise disturbs sleep," Mr. Smith continues. "Re-analysis of our data showed that sensitivity, measured as reactivity of the cerebral cortex, is greatest during the full moon."

Greater cortical reactivity was found in both women and men, whereas only men had more trouble falling asleep and slept less when the moon was full. Skeptics warn that both age and gender differences may be a source of error, not to mention more subtle factors such as physical condition and exposure to light during the day.

Need for more studies

Though fully aware of the issues, Mr. Smith is not prepared to dismiss the results of the Gothenburg study.

"The rooms in our sleep laboratories do not have any windows," he says. "So the effect we found cannot be attributable to increased nocturnal light during full moon. Thus, there may be a built-in biological clock that is affected by the [moon](#), similar to the one that regulates the circadian rhythm. But all this is mere speculation – additionally, more highly controlled studies that target these mechanisms are needed before more definitive conclusions can be drawn."

The article "Human [sleep](#) and cortical reactivity are influenced by lunar phase" is published in *Current Biology*.

Provided by University of Gothenburg

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