Exploring the Long-Term Neurodegenerative Effects of Sleepovers on Adolescents

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Sleepovers are often considered a definitive part of adolescence and strengthen the bonds of crucial friendships. Sleepovers, however, may have unintended repercussions, which is why many parents have disallowed their children from attending them. I tested how a combination of negative factors at sleepovers may have long-term neurodegenerative effects, possibly substantiating many parents' decisions to disallow sleepovers. First, participants completed a screening form assessing the best approximation of how many sleepovers they have had since the start of Middle School/since Grade 4, how many hours of sleep they got at these sleepovers on average, how many hours of sleep they normally get on average, and the level of severity, if applicable, for different sleepover-related activities. Then, participants completed two active recall and working memory tests – one auditory and one visual. Scores were calculated based on how many things the participant correctly recalled divided by the total number of things told or shown to them. As the difference between the number of hours of sleep participants normally got and the number of hours of sleep participants received at sleepovers increased, scores on the visual test decreased (n=7, R^2=.42), illustrating a moderate negative downward trend, worth further investigation. The same difference as above increased with the number of sleepovers attended. To reduce confoundings, comparisons were made across participants who had similar baseline sleep levels. Sleepovers often contribute to short-term sleep deprivation, which is associated with decreased test performance, but further research is required to verify this dose-response relationship.

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