

Improving Subjective Sleep Quality and Deep Sleep Duration in High School Students

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We surveyed 1322 fifteen to twenty-year-old students to learn how much they knew about their sleep and if they employed any sleep educating techniques. We found that 43,57% of students are unsatisfied with their quality of sleep, and only 28,9% know of any sleep improving techniques. These alarming numbers show that we do not pay enough attention to sleep. Our main experiment is designed to learn which sleep improving practices work best for students. Each subject started with a four-day control period, where no aids were used. The first mode of sleep enhancement we tested was to have the subjects only sleep for a period of time devisable by one and a half hours, the average time of one sleep cycle. Our second experiment was to have the subjects drink a milk and banana two hours before sleep. In the third method, we exposed the subjects to audio and visual stimulation: a red flashing light and a low frequency sounds. The fourth and final technique we tried was to have the subjects take a nightly pill which they believed to contain a herbal extract. The pill was a placebo, it was only gluten-free flour. Each experiment lasted four days and involved the same fifty students. Participants wore a sports-tracker to record of the ratio of deep sleep to light sleep. Evert night the subjects recorded time to bed. Next morning the subjects would record the time it took them to fall asleep and rate the quality of that night's sleep.