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three hours sleep restriction protocol

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ABSTRACT

This protocol was obtained from the Sleepy Brain Project (<https://openneuro.org/datasets/ds000201>). The detailed protocol procedure can be found at the site.

The project features a cross-over comparison between one night sleep restriction (3 hours sleep) and normal sleep. Participants were randomized to undergo both conditions in a counterbalanced order with an interval of approximately 1 month, and completed several questionnaires such as the Epworth sleepiness scale (ESS), the Insomnia Severity Index (ISI), the Karolinska Sleep Questionnaire (KSQ) sleep quality index and snoring symptom index, and the Positive and Negative Affect Schedule (PANAS). Among the questionnaires, the PANAS score was recorded in both conditions of sleep restriction and normal sleep.

PROTOCOL CITATION

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<https://protocols.io/view/three-hours-sleep-restriction-protocol-bqdrms56>

KEYWORDS

MRI, sleep deprivation, aging

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- 1 Participants were recruited by poster and newspaper advertising based on the following inclusion criteria: 1) those required to undergo fMRI procedures, e.g., no ferromagnetic items in the body, not claustrophobic, and not pregnant; 2) those who have no current or past self-reported psychiatric or neurological illness; 3) those who do not have hypertension or diabetes; 4) those who do not use psychoactive or immune-modulating drugs; 5) those who do not consume nicotine every day.
- 2 Participants fill in some sleep diaries e.g. normal time in bed for three nights before the experiment.

- 3 On the night before MRI imaging, participants slept in their home for only three hours (sleep restriction) or as usual. Their sleep was monitored by using ambulatory polysomnography. The total sleep time during the night was recorded. In the condition of sleep restriction, they were instructed to go to bed three hours before the time they would usually wake up and get up at their normal schedule.
- 4 On the day of experiment, participants was told to avoid coffee, alcohol, and naps .
- 5 In the evening following sleep restriction or normal sleep, participants undergo MRI scanning.