Sleep, Mental Health and Cognitive Performance of Young Adults

PRESENTER:

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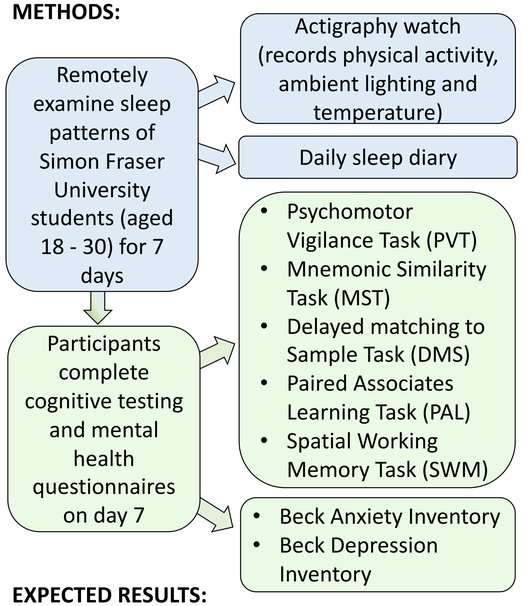
BACKGROUND:

- Sleep disturbance is often associated with anxiety, depression and cognitive impairment (e.g., memory).
- Current methods used to objectively monitor sleep can be invasive, uncomfortable and expensive.
- Aim: identify what cognitive tests are sensitive to sleep-dependent cognition and mental wellbeing.
- Such tests could be used to identify patients with early signs of mood and/or memory issues that may benefit from interventions targeted at improving sleep.

METHODS:



EXPECTED RESULTS:

- Sleep disturbance is associated with reduced neurogenesis (production of new brain cells).
- It is expected that cognitive tests that target neurogenesis-dependent memory processes will be most sensitive to sleep-dependent cognition and mental health scores.

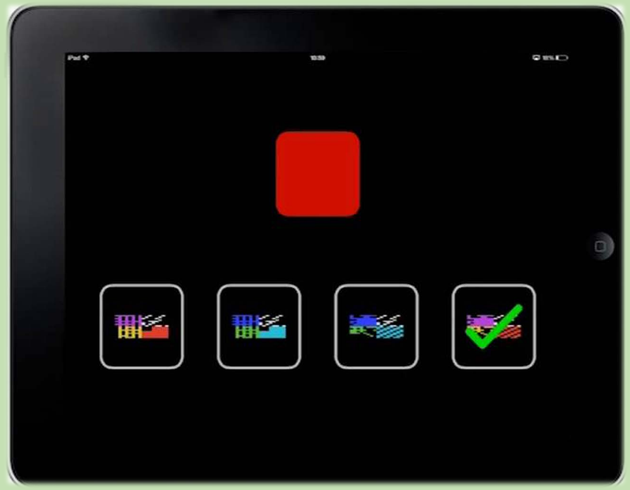
FUTURE RESEARCH:

- The most significant findings will be used to help develop a hypothesis for a follow-up controlled study.

Cognitive tests could be an efficient and convenient method for detecting **early signs** of **sleep-related** health issues.

Figure 1

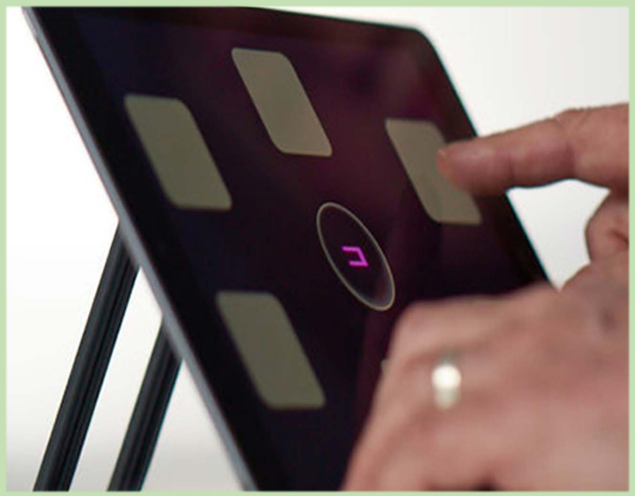
Delayed Matching to Sample Task (DMS)



Note. DMS targets short-term visual recognition memory and visual matching ability

Figure 2

Paired Associates Learning Task (PAL)



Note. PAL targets visual memory and new learning processes.

Figure 3

ActTrust 2 Actigraphy Watch

Note. Validated to objectively monitor sleep patterns in one's home environment.

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