

Prospective study of sleep characteristics, work-related stress and risk of dementia in Sweden

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Associate Professor

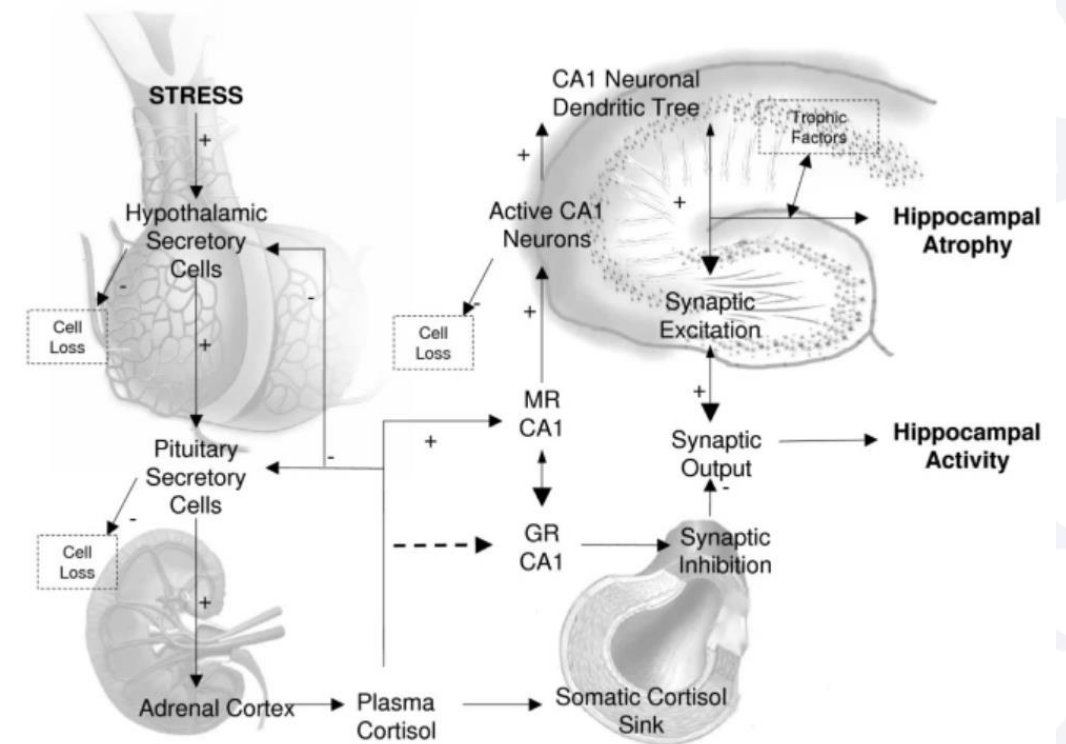
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WORK-RELATED STRESS

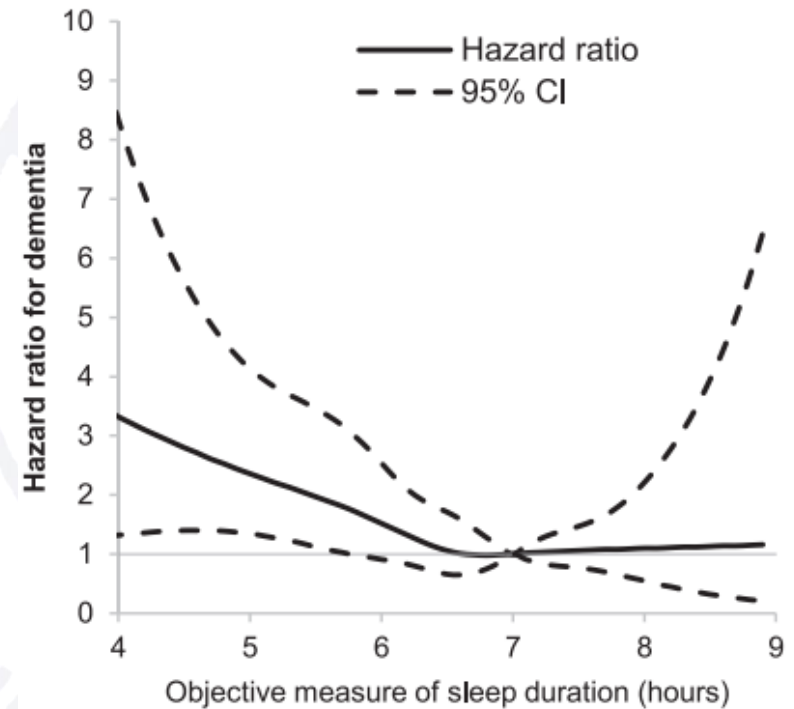
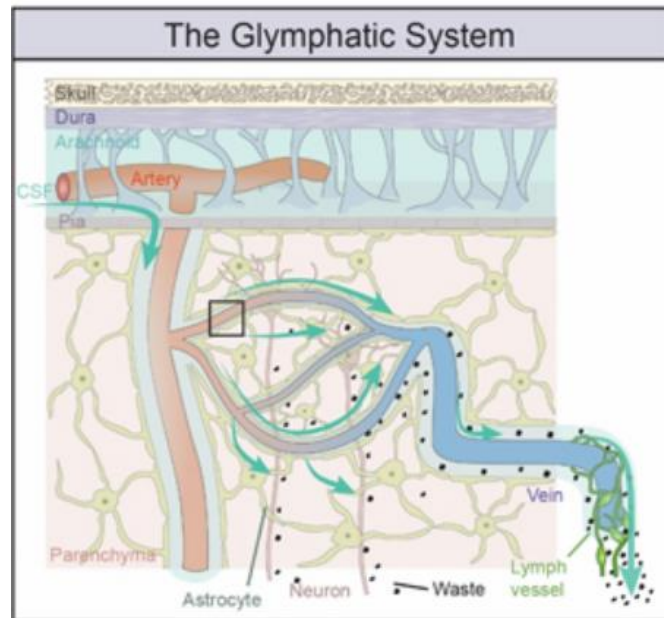
- Common, unavoidable in contemporary work environment
- Under-use of skills or under-skilled for work, discrimination, inequality, excessive workloads, job insecurity, unsafe/poor working condition
- 15% of working-age adults were estimated to have a mental disorder (WHO 2019)



Mc Auley et al. (2019) *BMC Neurosci*

SLEEP AND COGNITION

- Pivotal role
- Sleep duration and quality



Sabia et al. (2021) *Nat Commun*

Hablitz and Nedergaard (2021) *Current Biology*

STUDY DESIGN



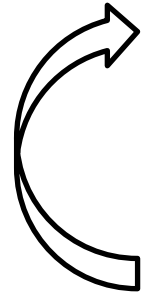
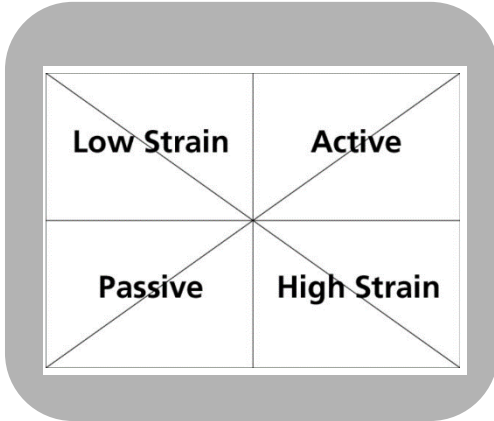
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- Swedish National March Cohort
- Retrospective cohort study (median follow-up 19.2 years)
- 19,369 participants aged 45 and above at baseline from 42,059 individuals in the cohort



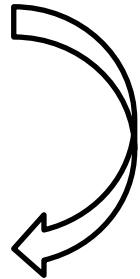
METHODS

WORK RELATED STRESS



Duration per night
in working/off days

Insomnia
symptoms with
duration and
frequency

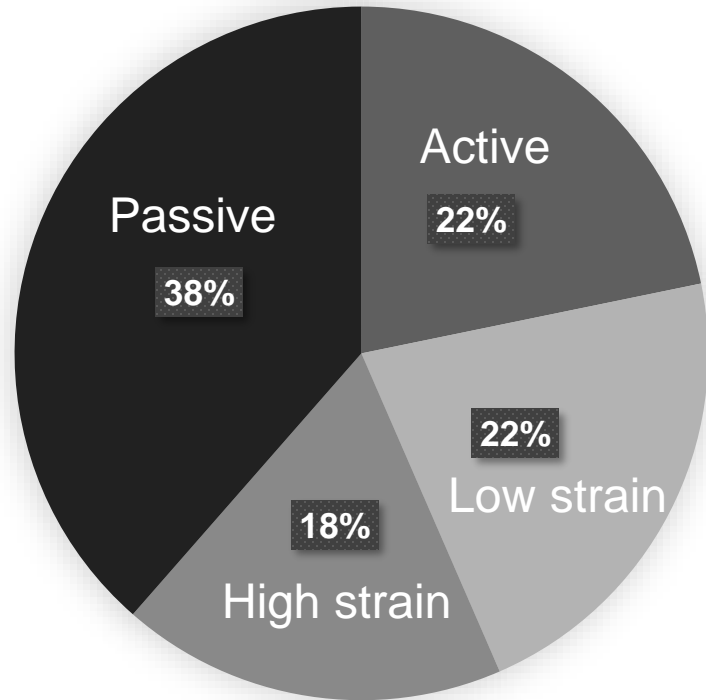


SLEEP



INCIDENT DEMENTIA FROM REGISTRY

BASELINE CHARACTERISTICS



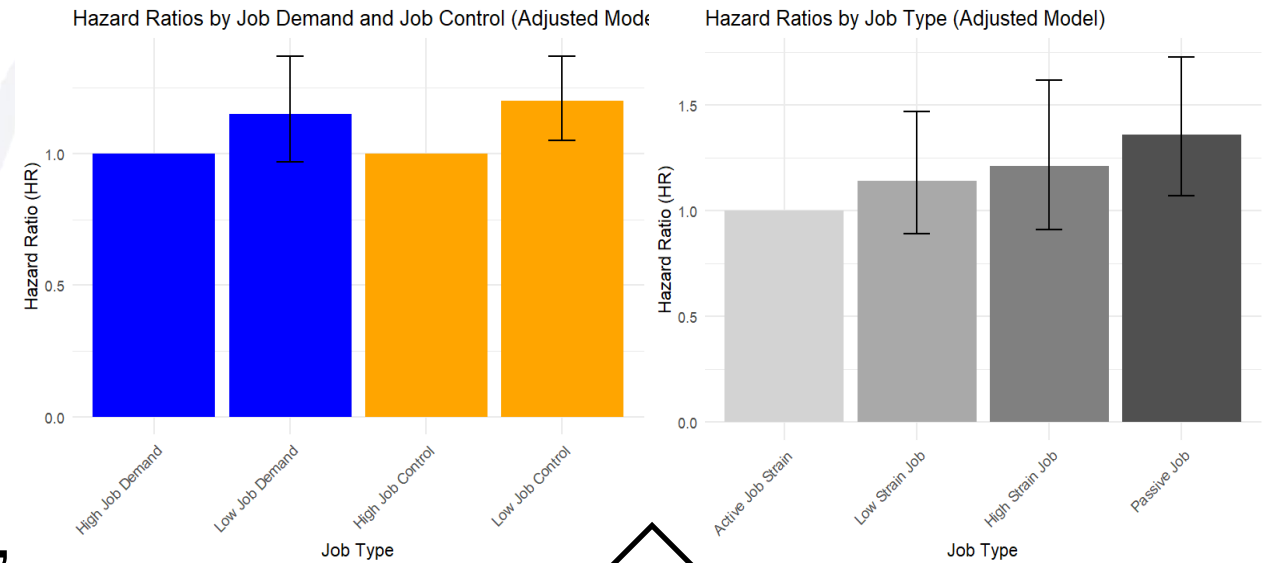
Compared with active job

- Passive job: age, education, chronic diseases
- Low strain: sex, social isolation, depression
- High strain: sleep duration, insomnia

STRESS and DEMENTIA

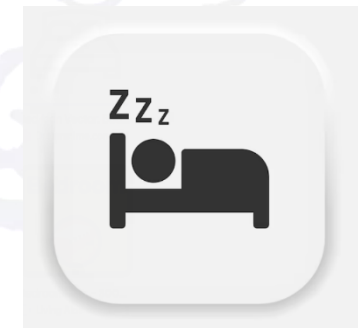
Compared with “Active job”

- Passive job: age, education, chronic diseases
- Low strain: sex, social isolation, depression
- High strain: sleep duration, insomnia



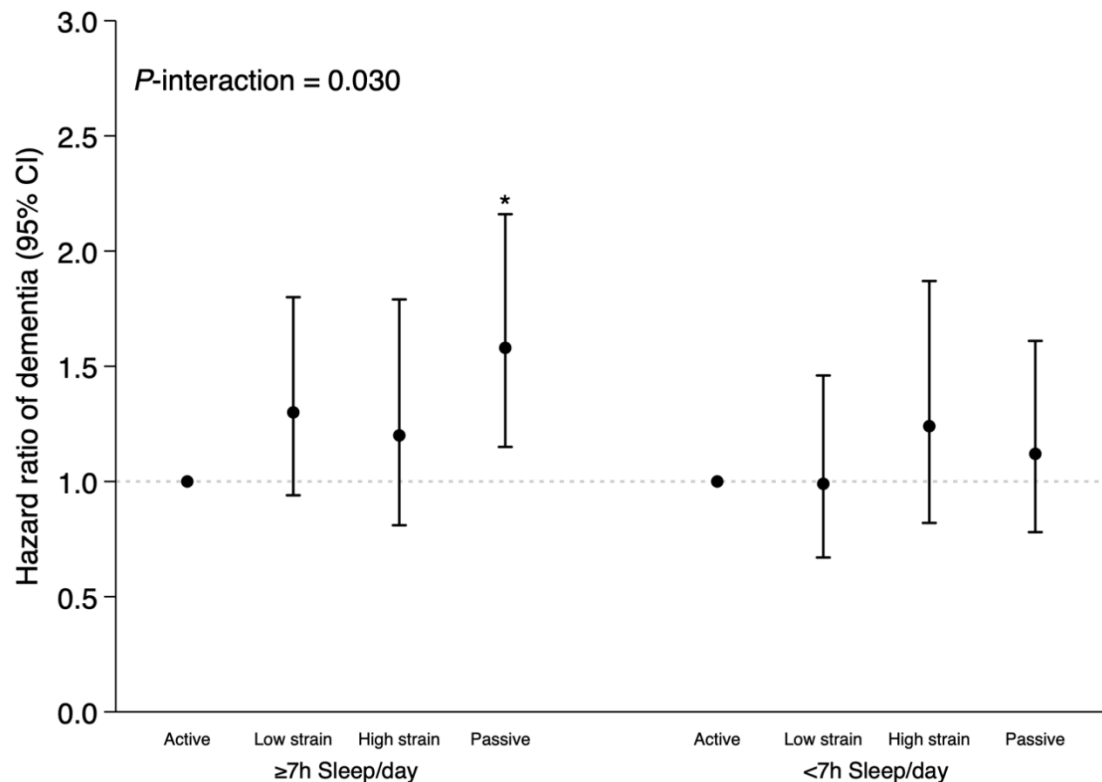
sleep duration X demand
insomnia X demand

sleep duration X strain
insomnia X strain

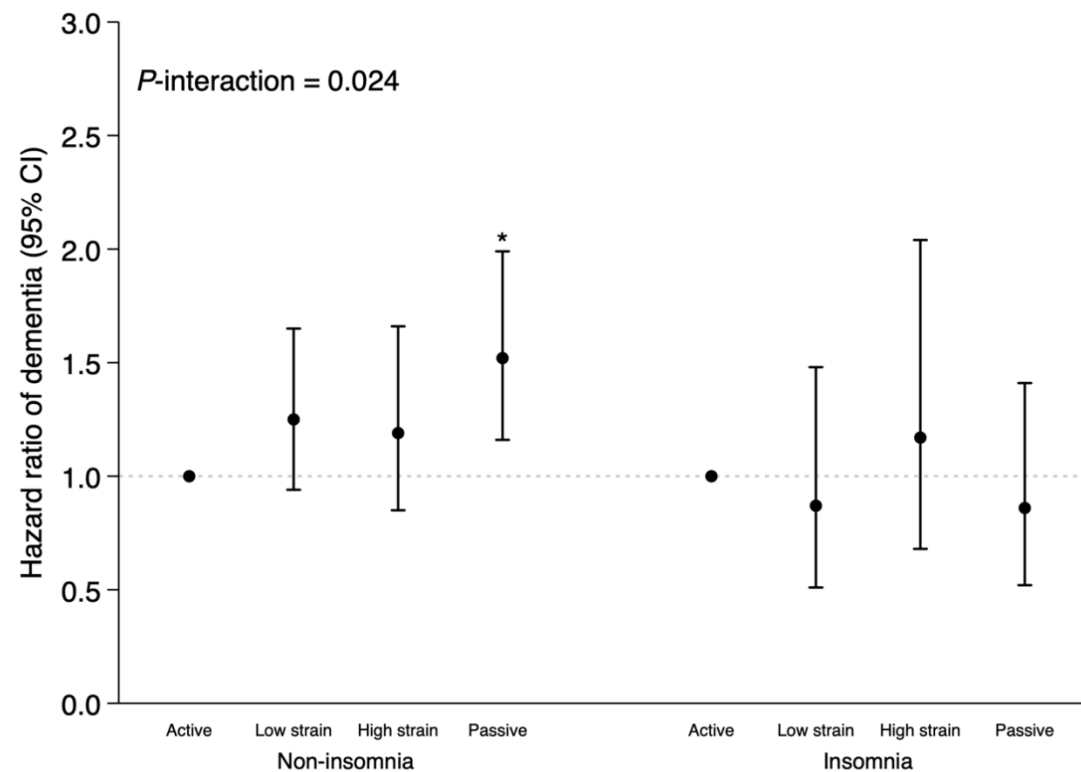


STRESS AND DEMENTIA BY SLEEP STATUS

Divided by sleep duration (7h/d)



Divided by having insomnia symptoms



TAKE HOME MESSAGE & ACKNOWLEDGEMENT

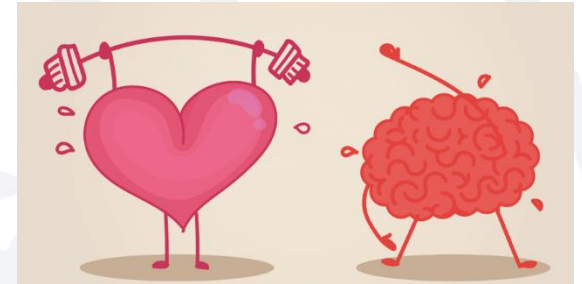


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- Stress at work increase the risk of dementia
- Conditions with sleep patterns
- Mechanisms warrant further studies



More about ZJU SLEEP LAB



O3-24: Neuroepidemiology
2.44-2.46, Fri 27/9 9:30



Jen Y. Zheng (PhD student, Zhejiang University)



Torbjörn Åkerstedt (Professor, Karolinska Institutet)



Hui-Xin Wang (Professor, Stockholm University)

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