this population group the PPV would only be 3.5%.

The authors conclude: 'Since depressive symptoms other than memory complaints did not seem to be related to dementia risk, apathy symptoms may be better suited to alert general practitioners to vulnerable persons who could benefit from a more active caregiving approach.'

Compared with those with no symptoms, participants with all three apathy symptoms had approximately double the hazard of developing dementia. However, the absolute risk increase is low, few screen-positive patients will have clinical apathy and there are as yet no treatments with proven efficacy.[7]

DR PHILLIP BLAND

Van Dalen JW, van Wanrooij LL, Moll van Charante EP et al. Apathy is associated with incident dementia in community-dwelling older people. *Neurology* 2018;90:e82-9

REFERENCES

1 Singh-Manoux A, Dugravot A, Fournier A et al. Trajectories of depressive symptoms before diagnosis of dementia. A 28-year follow-up study. *JAMA Psychiatry* 2017;74:712-18
2 Marin RS. Apathy: a neuropsychiatric syndrome. *J Neuropsychiatry Clin Neurosci* 1991;3:243-54
3 Mulin E, Leone E, Dujardin K et al. Diagnostic criteria for apathy in clinical practice. *Int J Geriatr Psychiatry* 2011;26:158-65
4 Adams KB, Matto HC, Sanders S. Confirmatory factor analysis of the Geriatric Depression Scale. *Gerontologist* 2004;44:818-26
5 Bertens AS, Moonen JEF, de Waal MWM et al. Validity of the three apathy items of the Geriatric Depression Scale (GDS-3A) in measuring apathy in older persons. *Int J Geriatr Psychiatry* 2017;32:421-28
6 Onyike CU, Sheppard JM, Tschanz JT et al. Epidemiology of apathy in older adults: the Cache County Study. *Am J Geriatr Psychiatry* 2007;15:365-75
7 Sherman C, Liu CS, Herrmann N, Lanctôt KL. Prevalence, neurobiology and treatments for apathy in prodromal dementia. *Int Psychogeriatr* 2018;30:177-84

Cardiovascular disease

Length and quality of sleep may affect cardiovascular risk

Sleeping for more than 8 hours a night was associated with an increased risk of mortality and poor quality sleep with an increased risk of coronary heart disease (CHD), a large meta-analysis has found.

The investigators carried out a systematic review and meta-analysis of prospective cohort studies that evaluated the association between sleep duration and quality and cardiovascular outcomes. They searched MEDLINE and EMBASE and identified 74 suitable studies including 3,340,684 participants with data on 242,240 deaths among 2,564,029 participants.

Self-reported duration of sleep in excess of 8 hours was associated with a moderately increased risk of all-cause mortality:

- Risk ratio (RR) 1.14 (95% CI: 1.05-1.25) for 9 hours' sleep
- RR 1.30 (95% CI: 1.19-1.42) for 10 hours' sleep
- RR 1.47 (95% CI: 1.33-1.64) for 11 hours' sleep

Likewise, a moderately increased risk of mortality due to stroke and cardiovascular disease was also observed with sleep duration > 8 hours.

Subjective poor sleep quality was associated with a significant increase in risk of CHD; RR 1.44 (95% CI: 1.09-1.90), but not mortality or any other outcomes.

The National Sleep Foundation in the US recommends 7 to 9 hours of sleep for people aged 26 to 64 years and 7 to 8 hours of sleep for those aged 65 years and over.

The authors acknowledge several limitations to their study for example sleep duration was not measured objectively but self-reported and there was an absence of individual patient level data.

The study authors state: 'Although we demonstrated an association between sleep quality, duration and outcome, these relationships cannot confer causality and it is unclear whether sleep duration or quality is a marker of prevalent cardiovascular risk, an adverse cardiovascular risk factor profile, or adverse health behaviours that contribute to the adverse outcomes reported.'

They suggest that greater consideration should be given to exploring sleep patterns during patient consultations.

DR PETER SAVILL

Kwok CS, Kontopantelis E, Kuligowski G et al. Self-reported sleep duration and quality and cardiovascular disease and mortality: A dose-response meta-analysis. *J Am Heart Assoc* 2018;7:e008552

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