

# Who reports insufficient sleep and sleep disturbances in Hong Kong?

Results from a representative population-based health survey

Laura E. Bedford, Eric H.M. Tang, Weinan Dong, Carlos K.H. Wong, Emily T.Y. Tse, Esther Y.T. Yu, Cindy L.K. Lam

## 1 Introduction

- Hong Kong (HK) has become known as one of the most sleep-deprived regions in the world with local studies reporting a high prevalence of sleep problems (range: 11.9% to 61.2%)<sup>[1-3]</sup>
- However, large-scale population-based studies exploring this issue are scarce.

### Objectives:

- Determine the prevalence of insufficient and disturbed sleep among a representative sample of the HK general population
- Identify the factors associated with sleep problems.

## 2 Method

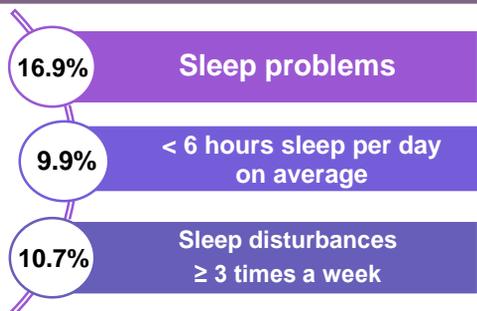
- Data for 12,022 individuals (aged  $\geq 15$  years) were derived from the HK Population Health Survey 14/15.
- Outcomes: 1) **insufficient sleep** (< 6 hours sleep per day) in the past 30 days, and 2) **disturbed sleep** (difficulty initiating sleep, intermittent awakening or early morning awakening)  $\geq 3$  times per week in the past 30 days.
- Multivariable logistic regression to identify associations between sleep problems and sociodemographic factors (e.g., gender, age, occupation), clinical factors (chronic disease, mental health condition) and lifestyle factors (e.g., physical activity level, alcohol consumption).

## R References

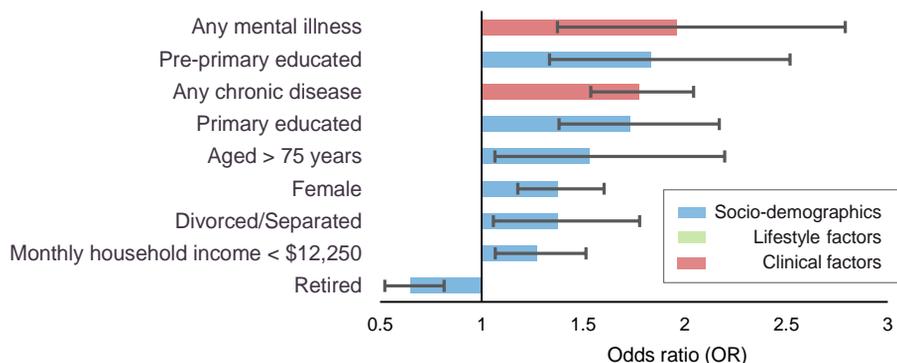
- [1] Li, R.H., et al., *Gender differences in insomnia--a study in the Hong Kong Chinese population*. J Psychosom Res, 2002. 53(1), 601-9
- [2] Wong, W.S. & R. Fielding, *Prevalence of insomnia among Chinese adults in Hong Kong: a population-based study*. J Sleep Res, 2011. 20(1), 117-26.
- [3] Zhao, S.Z., et al., *Short Sleep Duration and Insomnia Symptoms were Associated with Lower Happiness Levels in Chinese Adults in Hong Kong*. International journal of environmental research and public health, 2019. 16(12), 2079

## 3 Results

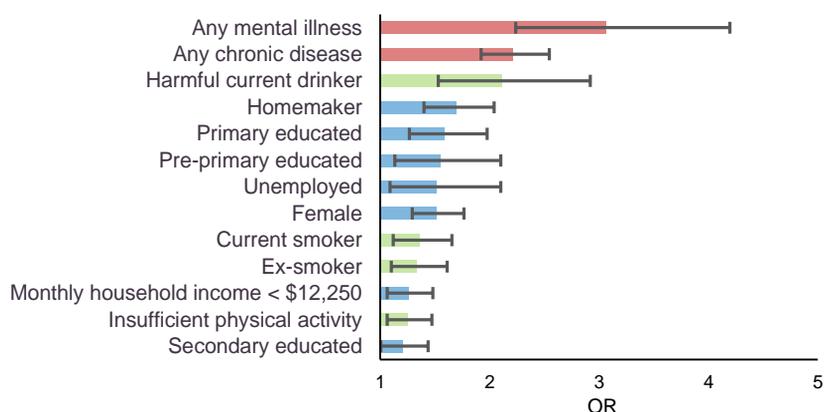
- 52.9% of respondents were female with a mean age of 47.2 years.
- 39.9% reported a chronic disease and 1.7% reported a diagnosed mental health problem.



### 1. Protective / risk factors for insufficient sleep



### 2. Risk factors for sleep disturbances



## 4 Discussion

- Sleep problems are highly prevalent in HK. Co-morbid mental health conditions were most strongly associated with both insufficient and disturbed sleep.
- Harmful drinking and current smoking are modifiable risk factors for sleep disturbance.
- Further studies can assess the population trend of sleep problems and the impact of the COVID-19 pandemic. There is also a need for more research on the development of evidence-based strategies to promote and improve sleep in HK.

**Acknowledgement:** Thank you to the Department of Health of the Government of the Hong Kong Special Administrative Region for the provision of study data.

**For further information, kindly contact:**

Laura Bedford ([lbedford@hku.hk](mailto:lbedford@hku.hk)); Eric Tang ([erichm@hku.hk](mailto:erichm@hku.hk))



**HKU  
Med**

LKS Faculty of Medicine  
Department of Family Medicine  
& Primary Care

香港大學家庭醫學及基層醫療學系