Doctor-diagnosed sleep apnoea in Hong Kong adolescents: prevalence and associations with night-eating and dinner time

Dai SY, Ho SY, Mok HY, Yung D, Lo WS, Lam TH
School of Public Health, University of Hong Kong, Hong Kong

Background
- Sleep apnoea affecting 1 in 20 adults.
- Eating meals late at night may cause regurgitation during sleep, affecting the upper airway.
- It is supposed that sleep apnoea is associated with night-eating and late dinners.

Objectives
- Investigate the prevalence of sleep apnoea in Hong Kong adolescents.
- Investigate its with night eating and dinner time.

Methods
- Study design
  - Cross-sectional anonymous questionnaire in 2006/07
  - Subjects: 3692 Chinese students (44.9% boys; mean age 14.8, SD 1.9) years from 42 randomly selected secondary schools
- Measurements
  - Independent variable
    - Doctor-diagnosed sleep apnoea (reported by student, yes or no)
  - Dependent variables
    - The frequency of night-eating (eating meals between dinner and sleep)
    - 3 categories: none (reference), 1-4 days per week, 5-7 days per week.
- Usual dinner time
  - 3 categories: early (6-7PM) (reference), normal (7:30-9:30PM), late (10PM)
- Data analysis
  - Descriptive statistics
    - Prevalence of reported late night eating
  - Logistic regression
    - AORs of sleep apnoea (independent) for night-eating, dinner time.

Conclusions
- Doctor-diagnosed sleep apnoea was reported by 1.8% of Chinese adolescents in Hong Kong.
- Doctor-diagnosed sleep apnoea was associated with night eating and late dinner time.
- Our results provide preliminary evidence against eating meals late at night in relation to sleep apnoea.

Results
The prevalence of sleep apnoea was 1.8% overall, 1.3% in boys and 0.7% in girls (P<0.001).

Increased Adjusted Odds Ratios of Sleep Apnoea

AORs of sleep apnoea (dependent variable) for night-eating and dinner time, adjusting for each other, age, sex, perceived family affluence and usual bedtime on weekdays and weekends.

Funding & Contact
University Research Committee, Strategic Research Theme on Public Health, University of Hong Kong.

For additional information, please contact:
Dai Siyu (dasiyu@hku.hk)