

Prevalence and Associated Factors of Overweight in Chinese Adolescents: A Cross-sectional Study

J.J. HUANG^{1,2}, Vera M.W. KEUNG¹, Calvin K.M. CHEUNG¹, Amelia S.C. LO¹, S.C. CHAN², Y.Y. WONG², Lancelot W.H. MUI^{1,2}, Albert LEE^{1,2}, Martin C.S. WONG^{1,2,3,4,5}

*Correspondence: wong_martin@cuhk.edu.hk

1. Centre for Health Education and Health Promotion, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong SAR; 2. Jockey Club School of Public Health and Primary Care, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong SAR; 3. The School of Public Health, Peking University, Beijing, China; 4. The School of Public Health, The Chinese Academy of Medical Sciences and The Peking Union Medical Colleges, Beijing, China; 5. The School of Public Health, Fudan University, Shanghai, China



Background

- **Obesity** has been a global public health issue due to the increasing mortality rate and prevalence among children.
- The study aims to identify the risk factors of obesity among **4,884** primary and secondary school students by assessing
 - **sociodemographic factors**
 - **health-related behaviours**
 - **social relationships**



Methods

- Self-administrated survey distributed to
 - **30** primary schools
 - **25** secondary schools.
- Conducted descriptive analysis for
 - Prevalence of overweight among students.
- Separate binary regression models for
 - The association with the outcome variables (overweight)
 - The aforementioned factors
- Overweight is defined as over **120%** of median weight-for-height local growth charts.

Results



- Prevalence of overweight:
 - Primary school: **17.3%**
 - Secondary school: **16.8%**
- Risk factors for primary school students: **male** (aOR: 2.55, 95% CI: 1.77-3.67, $p < 0.001$), **actively gamed** (aOR: 1.64, 95% CI: 1.07-2.51, $p = 0.024$), and reported the tendency to **skip breakfast** (aOR: 2.00, 95% CI: 1.32-3.03, $p = 0.001$).
- Risk factors for secondary school students **male** (aOR: 1.61, 95% CI: 1.21-2.13, $p = 0.001$), had **poor self-perceived academic performance** (aOR: 1.51, 95% CI: 1.10-2.08, $p = 0.011$), expressed higher **life satisfaction** (family) (aOR: 1.13, 95% CI: 1.01-1.26, $p = 0.032$), and had a higher **consumption of processed or preserved meat** (aOR: 1.49, 95% CI: 1.06-2.11, $p = 0.023$).

Conclusions

- There was a high prevalence of overweight among school children.
- Healthy lifestyle should be promoted to students and parents:
 - ✓ **regular physical activity**
 - ✓ **consuming healthy food**
 - ✓ **eating breakfast regularly**



Acknowledgments

Grant support: Quality Education Fund Thematic Network on Healthy Schools (EDB/QEF22/17/7), Hong Kong SAR
Ethics: Survey and Behavioural Research Ethics Committee, CUHK (No. SBRE(R)-22-008)