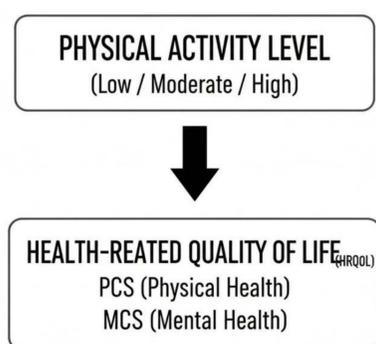


I. BACKGROUND

- ◆ Physical inactivity is a major global public health concern affecting physical and mental health.
- ◆ University students are particularly vulnerable due to academic stress and lifestyle changes.
- ◆ Clarifying the relationship between physical activity and health-related quality of life (HRQoL) is essential for campus health promotion.

II. METHODS

- **Design:** Cross-sectional study
- **Participants:** 406 university students (18–21 years) in Zhuhai, China
- **Measurements:** Physical activity (IPAQ-SF); Health-related quality of life (SF-12: PCS, MCS)
- **Analysis:** Kruskal–Wallis H test; Kendall’s Tau-b correlation
- **Study Framework:**



III. RESULTS

PA level distribution by gender

- Female students showed a higher prevalence of low physical activity.
- Most students reported moderate or high physical activity levels.

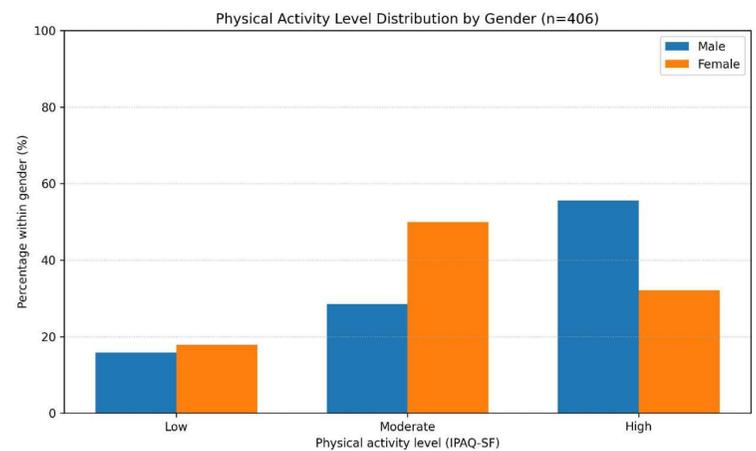


Fig. 1. Female students showed a higher prevalence of low physical activity. PA levels were classified using IPAQ-SF.

Physical activity level and PCS

- Higher physical activity levels were associated with higher PCS scores among male students.
- No significant differences in PCS scores were observed across physical activity levels among female students.

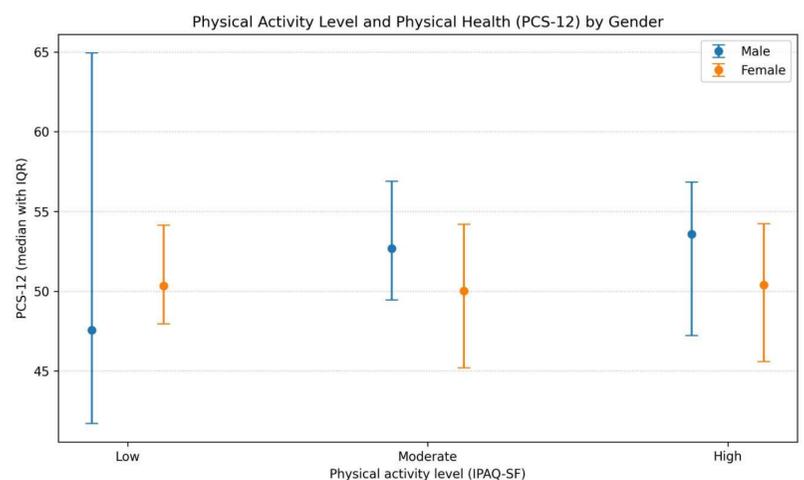


Fig. 2. Higher physical activity was associated with better physical health only among male students. PCS-12 scores are presented as median with interquartile range.

V. Conclusions & Implications

- Physical activity was positively associated with physical health (PCS) among male university students.
- Female students showed a higher prevalence of low physical activity, highlighting a key target group for intervention.
- No significant association was observed between physical activity and mental health, suggesting the involvement of additional psychosocial factors.
- Universities should implement targeted physical activity programs to promote physical health and overall well-being on campus.