

# APRU Global Health Conference 2021

## GLOBAL URBAN HEALTH

16-18 November 2021

The University of Hong Kong, Pokfulam, Hong Kong

### Abstract No.

### Abstract Title

95

**Effects of Different Aerobic Exercise Frequencies and Intensities on Objective Sleep Parameters among Older Adults with Insomnia: A Pilot Study**

Theme

Environment, health & active lifestyle

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### Purpose / Background:

#### Background:

- Insomnia as a highly prevalent problem among older adults
- Exercise is known to improve sleep
- Impact of different intensities and frequencies of aerobic exercises on objective sleep parameters yet to be discovered

#### Purpose:

- Compare the effect of different intensities and frequencies of exercise on improving objective sleep quality
- Target population: older adults with insomnia
- Accessed by actigraphy-based objective measurements

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### Methods:

Older adults (age  $\geq 55$ ) with chronic insomnia

Aerobic exercise

Attention control group  
(75 min stretching session/week)

50 min moderate-intensity walking x3/week (n=7)

150 min moderate-intensity walking x1/week (n=7)

25 min vigorous-intensity walking x3/week (n=8)

75 min vigorous-intensity walking x1/week (n=8)

- Duration of study: **12 weeks**
- **Objective sleep parameters**
  - sleep efficiency, wake time after sleep onset, number of awakenings per night, sleep onset latency, total sleep time, and average wake time per awakening
  - accessed using 7-day wrist actigraphy before and after the 12 weeks of intervention
- Data analyzed using generalized estimated equations

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### Results & Conclusions:

#### Results:

- No significant group-by-time interaction observed in all objective sleep parameters
- Average wake time per awakening reduced in MODx3/wk, VIGx3/wk & VIGx1/wk groups without reaching statistical significance (interaction effect:  $p=0.087$ )

#### Conclusions:

- no significant differences observed between control & exercise groups in all objective sleep parameters
- higher aerobic exercise frequencies & intensities may be more effective in reducing average wake time per awakening

