

Changes in Lifestyle, Mental Health, and Body Weight Status among Malaysian Adults before and during the COVID-19



Undergraduate



Introduction

- Home confinement during Movement Control Orders (MCO) have had impacts on physical activity and sedentarism.
- Constant bombardment of news regarding COVID-19 has caused deterioration of mental health including stress, depression, and anxiety (Al-Musharaf *et al.*, 2021).
- Changes in lifestyle and mental health may synergistically lead to weight gain among the Malaysian adults.
- Considering the complications associated with weight gain, it is of significant importance to determine the association between lifestyle, mental health, and weight gain during the pandemic.

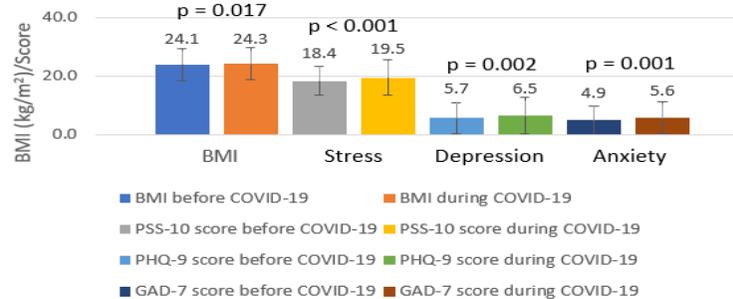
Methodology

- A total of 338 participants were recruited through an online self-administered questionnaire.
- Data was collected from September 2019 (before COVID-19) and November 2021 to January 2022 (during COVID-19).
- Each parameter was assessed using validated questionnaire.
 - International Physical Activity Questionnaire-Short Form (IPAQ-SF)
 - Perceived Stress Scale (PSS-10)
 - Patient Health Questionnaire (PHQ-9)
 - Generalized Anxiety Disorder (GAD-7)
- All statistical analysis was done using SPSS and the level of statistical significance for all tests was set at $p < 0.05$.

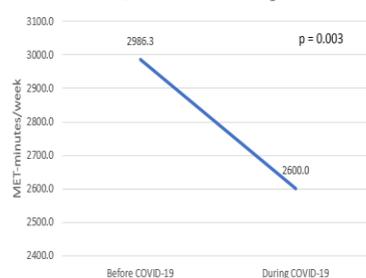
Results

- Among the 338 participants (31.4% male and 68.6% female) with a mean age of 33.7 ± 14.0 years, an average weight gain of 0.6kg was observed, with 45.5% experienced weight gain, 71.9% remained physically active, and 45.6% classified as sedentary.
- Stress, depression, and anxiety increased significantly as evidenced by the significant increase in the scores of PSS-10, PHQ-9, and GAD-7.
- Participants were 1.068 times more likely to gain weight for every 1 hour increase in sedentary hours (AOR = 1.068, 95% CI = 1.002 – 1.139, $p = 0.043$).

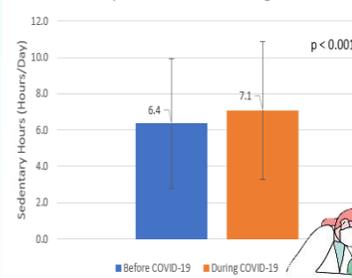
Changes in BMI and Mental Health Status before and during COVID-19



MET-minutes/week before and during COVID-19



Sedentary Hours before and during COVID-19



Discussion

- High prevalence of weight gain may be explained by the high proportion of participants experiencing moderate level of stress.
- Weight gain observed may be due to declined physical activity which has been suggested to be associated with body fat and appetite dysregulation (Panahi and Tremblay, 2018).
- Sedentary behavior is drastically increased in the absence of occupational and social cues.
- Increased snacking frequency due to prolonged sedentary hours can lead to over-consumption of the next meal and result in weight gain (Mittal *et al.*, 2011).
- Increased stress, depression, and anxiety is anticipated under the pandemic circumstances due to the presence of a novel and unknown virus (Al-Musharaf *et al.*, 2021).
- Deterioration of mental health induces changes in lifestyle behaviors and food choices, causing lowered physical activity and emotional eating (Husain and Ashkanani, 2020).
- Increasing body weight during the pandemic is important as mounting evidences are associating obesity with more adverse COVID-19 complications (Pellegrini *et al.*, 2020).

Conclusion

While lockdown has caused enormous changes in lifestyle and mental health leading to increased risk of weight gain, appropriate interventions such as adhering to the Malaysian Healthy Plate concept and improving lifestyle behaviors should be promoted, especially among those at risk of obesity, via nutrition education programs and campaigns to mitigate the effects of weight gain.

References

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