

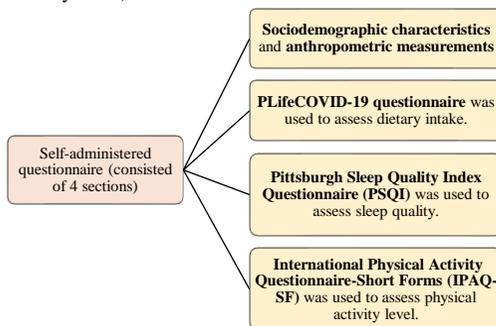
Undergraduate

## Introduction

- COVID-19 was first identified in Malaysia on 25 January 2020 (Elenogue 2020).
- The enforcement of Movement Control Order (MCO) leads to movement restriction and control measures such as social distancing and closures of public and private higher education institutions were implemented (Elenogue 2020).
- The pandemic has brought a significant impact on people's behaviour and lifestyles, particularly, dietary intake, sleep and physical activity (Coiro et al. 2021).
- University students are one of the vulnerable populations affected by the pandemic (Selvanathan, Hussin and Azazi 2020).
- However, there was limited research on the impact of lockdown on Malaysian university students' lifestyle modifications.
- The study aims to determine the impact of COVID-19 on dietary intake, sleeping patterns and physical activity levels of the students studying in public or private university in Selangor, Malaysia.

## Methodology

- A total of **261 university students** in Selangor were recruited to participate in this cross-sectional online survey.
- Data collection was performed via Google Forms.
- The questionnaire collected the participants' response before (December 2019) and during the pandemic (November 2021 to February 2022).



- All statistical analyses were performed using the **SPSS** and the significant level was set at  $p < 0.05$ .

## Results

- Out of the 261 participants, 20.7% were male and 79.3% were female. The mean age of the total participants was  $21.9 \pm 1.7$  years.

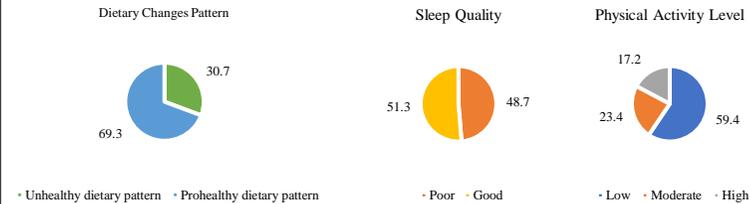


Figure 1-3: Percentage of participants with unhealthy dietary pattern, poor quality of sleep and low physical activity levels during the pandemic.

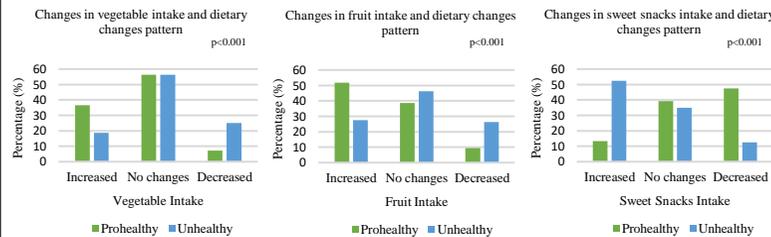


Figure 4-6: Percentage of changes in vegetable, fruit and sweet snacks intake by dietary changes pattern.

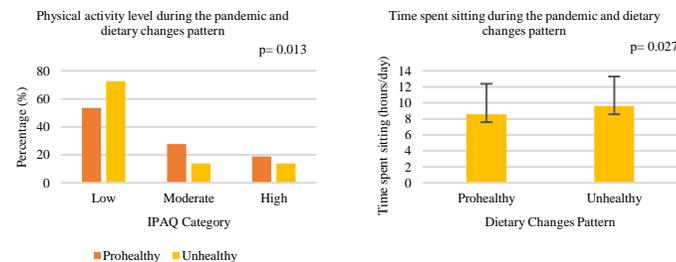


Figure 7&8: Physical activity level and time spent sitting during the pandemic by dietary changes pattern.

- Participants being underweight before the pandemic (AOR=2.472, 95% CI= 1.358-4.499), increased takeaway meals consumption (AOR=1.899, 95% CI= 1.042-3.461), increased snacking between meals consumption (AOR= 2.989, 95% CI= 1.653-5.404) and engaged in a low level of physical activity during pandemic (AOR= 1.935, 95% CI= 1.028-3.643) were the predictors of unhealthy dietary pattern.

## Discussion

- Compared to the current study, a study carried out by Daniel Olodu et al. (2021) during the COVID-19 pandemic in Nigeria showed a much higher prevalence of unhealthy dietary intake (84.8%) among university students.
- This could be due to the increased health consciousness of the Malaysian university students and the fear of getting infected with the virus which leads to healthier food choices (Tan, Tan, and Tan 2021).
- The study suggested that more university students have engaged in a low level of physical activity during the pandemic when compared to the previous study (Rajappan, Selvaganapathy and Liew 2015).
- Students were more likely to practise sedentary behaviours due to the transition to online learning.
- Werneck et al. (2021) and Fletcher et al. (2018) indicated that adults and adolescents with sedentary behaviours were more likely to adhere to unhealthy diet.
- It may be due to increased screen-based work activities in addition to the movement restriction during the lockdown which causes an increase in the desire to consume unhealthy food (Vizcaino et al. 2020).

## Conclusion

University students' dietary intake, sleeping patterns, and physical activity levels were impacted in different ways during the pandemic. Interventions should be developed and implemented to improve the health and well-being of university students during the pandemic.

## References

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