IMPACT OF COVID-19 QUARANTINE ON MEDICAL STUDENTS' WEIGHT

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INTRODUCTION

The COVID-19 pandemic and the enforcement of the Movement Control Order (MCO) by the Malaysian government has brought great impact to Malaysians throughout the country. During this pandemic, the educational institutions are close, and all teaching and learning sessions are conducted online. This has a major impact on the educational system, especially the medical education in Malaysia. Medical students have to cope with a different lifestyle which can consequently affect their diet, lifestyle behaviour and body weight.

OBJECTIVES

- To determine changes in lifestyle, diet, stress, and body weight among medical students before and 6 months into the MCO period.
- To determine the factors associated with weight change during MCO.

Weight (kg) has shown a significant difference in which p-value was 0.008 (≤ 0.05)

The weight change was higher among students who were **stress** (p-value: 0.012).

METHODOLOGY

01 Lifestyle and body weights among 49 Taylor's University medical students' cohort were studied before the pandemic and six months into MCO period

02 Data were collected via an online standardised self-administered questionnaire from **June 2020 to July 2020**
- Socio-demography
- information on anthropometry
- accommodation
- eating behaviour
- stress
- sleeping habit

03 IBM **Statistical Package for the Social Sciences (SPSS) Version 26** was used to carry out all statistical analyses

04 McNemar's test was used for qualitative variables and paired sample t-test was used for quantitative variables to determine changes in lifestyle, diet, stress and body weight among medical students during the MCO period

05 In order to determine the **factors associated with weight change** during the MCO period, Independent t-test was used to test the association between lifestyle, stress, diet and weight loss. Considerably, a p-value of ≤0.05 was determined to be statistically significant

RESULTS

Illustration 1: Respondents BMI classification (N=49)

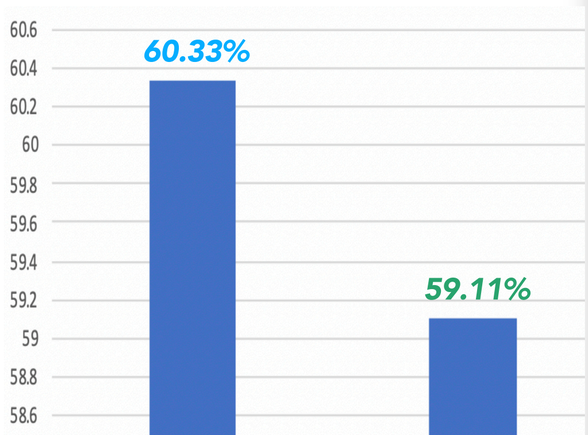
WHO body weight classification for Asian population (kg/m²)

Obese ≥ 27.5	Overweight 23 - 27.4	Normal 18.5 - 22.9	Underweight < 18.5
7 persons (14.3%)	8 persons (16.3%)	24 persons (49.0%)	10 persons (20.4%)

Table 1: Socio-demographic variables (n=49)

Characteristic	(n=49) Number (%)
Ethnicity	
Malay	6 (12.2)
Chinese	19 (38.8)
Indian	18 (36.7)
Others	6 (12.2)
Gender	
Male	17 (34.7)
Female	32 (65.3)
Accommodation	
With Parents / Anyone that cooks regularly	28 (57.1)
Alone / Friends / non-regular cooks	21 (42.9)
Stress level	
Low	40 (81.6)
High	9 (18.4)
Sleeping habit	
Poor	33 (67.3)
Good	16 (32.7)
Physical activity / week	
Inadequate	29 (59.2)
Adequate	20 (40.8)
Number of fast foods / week	
Rarely	35 (71.4)
Often	14 (28.6)
Type of diet practiced	
Unvaried diet	3 (6.1)
Varied diet	46 (93.9)
Height, cm (mean ± SD)	163.84 ± 7.20
Weight, kg (mean ± SD)	59.11 ± 12.12
BMI, kg/m² (mean ± SD)	21.94 ± 3.84

Graph 1: Mean Weight Comparison (kg)



With a mean SD of 60.33±12.70 before MCO and 59.11±12.12 during MCO

CONCLUSION

- We conclude that in this study, body weight has shown a **positive reduction** amongst medical students during MCO and **stress was the factor contributing to the weight change.**
- **Stress is significantly associated with body weight change** in which was higher among students who were stress. On that note, this finding is found to be similar with Wahed WY et al. where a positive association is established between stress and weight change. It is noted that as per Dwivedi et al. , due to the closure of educational institution, we agree that and online and digital method of learning and teaching is an improvement in not only medical education but rather other professions too, however this was made too suddenly. We believe that, this sudden change poses a challenge to students who are not exposed to the online and digital education in terms of familiarity towards teaching platforms used, connectivity and also a probable cause of the lack of face-to-face interactions with their lecturers causing difficulties in understanding what was being taught.
- As for other variables studied, there were no significant association with its impact towards the medical students' weight before or during the MCO.

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