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FINANCIAL HARDSHIP AND DIETARY ADHERENCE DURING COVID-19 PANDEMIC

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Abstract

The COVID-19 pandemic affected the global economy resulting in financial hardship due to declining wages or job losses. A decreased income influences food expenditure and accessibility affecting dietary adherence to healthy recommendations. Thus, this study aimed to investigate the association between financial hardship and dietary adherence among Malaysian working adults during the pandemic. Individuals aged 18 to 59 years (N=163) who experienced financial hardship during the pandemic participated in this cross-sectional study. The data were collected through an online survey. The reported number of servings consumed by the respondents for nine food groups was compared with the recommendations by the Malaysian Dietary Guidelines 2020 and Malaysian Food Pyramid 2020 using one-sample t-test to measure dietary adherence. The association between the financial hardship categories ($\leq 25\%$, 26-50%, 51-75%, and 76-100% of monthly household income reduction rate during the pandemic) and dietary adherence status was assessed using the chi-squared test. The respondents consumed significantly lower number of servings of vegetables, fruits, cereals, fish, legumes, milk and milk products, and fat/oils, compared to recommendations (all p[removed])

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- 1 Tan, T, Carvalho, M, Sivanandam, H, Rahim, R.
Nearly 100,000 Malaysians have lost jobs since start of MCO, says HR ministry
(2020) *TheStar Newspaper*
1. 9 Dec Retrieved from (Accessed 5 June 2022)
<https://www.thestar.com.my/news/nation/2020/12/09/nearly-100000-malaysians-have-lost-jobs-since-start-of-mco-says-hr-ministry>

- 2 (2020) *Household Income Estimated and Incidence of Poverty Report, Malaysia*. Cited 7 times.
2. Department of Statistics Malaysia. Retrieved from (Accessed 1 June 2022)
https://www.dosm.gov.my/v1/index.php?r=column/cthemByCat&cat=493&bul_id=VTNHRkdiZkFzenBNd1Y1dmg2UULrZz09&menu_id=amVoWU54Utl0a21NWmdhMjFMMWcyZz09

- 3 (2021) *Household Income & Basic Amenities Survey Report 2019*
3. Department of Statistics Malaysia. Retrieved from (Accessed 5 June 2022)
https://www.dosm.gov.my/v1/index.php?r=column/cthemByCat&cat=120&bul_id=TU00TmRhQ1N5TUxHVWN0T2YjYXJZz09&menu_id=amVoWU54Utl0a21NWmdhMjFMMWcyZz09

- 4 (2003) *Adherence: Defining Adherence*
4. World Health Organization. Retrieved from (Accessed 25 May 2022)
https://www.who.int/chp/knowledge/publications/adherence_Section1.pdf

- 5 (2020) *Malaysian Dietary Guidelines 2020*. Cited 4 times.
5. Ministry of Health Malaysia. Retrieved from (Accessed 24 May 2022)
<https://nutrition.moh.gov.my/MDG2020/mobile/index.html#p=1>

- 6 (2020) *Piramid Makanan Malaysia 2020 - Mendidik Rakyat Mengambil Makanan dengan Betul*
6. Ministry of Health Malaysia. Retrieved from (Accessed 24 May 2022)
<https://www2.moh.gov.my/index.php/pages/view/2725>

-
- 7 Shahr, S., Mohamed, H.J.B.J., Reyes, F., Amarra, M.S.
Adherence of Malaysian adults' energy and macronutrient intakes to national recommendations: A review and meta-analysis
(2018) *Nutrients*, 10 (11), art. no. 1584. Cited 7 times.
<https://www.mdpi.com/2072-6643/10/11/1584/pdf>
doi: 10.3390/nu10111584
View at Publisher
-
- 8 Lewis, M., Lee, A.J.
Affording health during the COVID-19 pandemic and associated economic downturn
(2020) *Australian and New Zealand Journal of Public Health*, 44 (6), pp. 519-520. Cited 12 times.
[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1753-6405](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1753-6405)
doi: 10.1111/1753-6405.13045
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-
- 9 Blakely, T., Mhurchu, C.N., Jiang, Y., Matoe, L., Funaki-Tahifote, M., Eyles, H.C., Foster, R.H., (...), Rodgers, A.
Do effects of price discounts and nutrition education on food purchases vary by ethnicity, income and education? Results from a randomised, controlled trial
(2011) *Journal of Epidemiology and Community Health*, 65 (10), pp. 902-908. Cited 53 times.
<http://jech.bmj.com/content/65/10/902.full.pdf>
doi: 10.1136/jech.2010.118588
View at Publisher
-
- 10 Nazri, N.S., Vanoh, D., Leng, S.K.
Malnutrition, low diet quality and its risk factors among older adults with low socio-economic status: A scoping review (Open Access)
(2021) *Nutrition Research Reviews*, 34 (1), pp. 107-116. Cited 10 times.
<http://journals.cambridge.org/NRR>
doi: 10.1017/S0954422420000189
View at Publisher
-
- 11 La Mantia, C.
(2020) *Diet quality in relation to income, education, and food insecurity among Canadian adults*. Cited 2 times.
11. Retrieved from (Accessed 26 May 2022)
https://tspace.library.utoronto.ca/bitstream/1807/103163/1/La_Mantia_Claire_202011_MSc_thesis.pdf
-
- 12 Al Mamun, A., Hayat, N., Zainol, N.R.B.
Healthy eating determinants: a study among Malaysian young adults (Open Access)
(2020) *Foods*, 9 (8), art. no. 974. Cited 11 times.
<https://www.mdpi.com/2304-8158/9/8/0974>
doi: 10.3390/foods9080974
View at Publisher
-

- 13 French, S.A., Tangney, C.C., Crane, M.M., Wang, Y., Appelhans, B.M.
Nutrition quality of food purchases varies by household income: The SHoPPER study

(2019) *BMC Public Health*, 19 (1), art. no. 231. Cited 164 times.
<http://www.biomedcentral.com/bmcpublichealth>
doi: 10.1186/s12889-019-6546-2

[View at Publisher](#)

- 14 Karupaiah, T., Swee, W.C.S., Liew, S.Y., Ng, B.K., Chinna, K.
Dietary health behaviors of women living in high rise dwellings: A case study of an urban community in Malaysia
([Open Access](#))

(2013) *Journal of Community Health*, 38 (1), pp. 163-171. Cited 21 times.
doi: 10.1007/s10900-012-9597-1

[View at Publisher](#)

- 15 Yusoff, M.S.B.
ABC of Content Validation and Content Validity Index Calculation ([Open Access](#))

(2019) *Education in Medicine Journal*, 11 (2), pp. 49-54. Cited 277 times.
http://eduimed.usm.my/EIMJ20191102/EIMJ20191102_06.pdf
doi: 10.21315/eimj2019.11.2.6

[View at Publisher](#)

- 16 Bland, J.M., Altman, D.G.
Statistics notes: Cronbach's alpha

(1997) *BMJ*, 314 (7080), p. 572. Cited 3387 times.
doi: 10.1136/bmj.314.7080.572

[View at Publisher](#)

- 17 Streiner, D.L.
Starting at the beginning: An introduction to coefficient alpha and internal consistency ([Open Access](#))

(2003) *Journal of Personality Assessment*, 80 (1), pp. 99-103. Cited 1976 times.
<http://www.tandfonline.com/toc/hjpa20/current>
doi: 10.1207/S15327752JPA8001_18

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- 18 (2014) *National Health and Morbidity Survey 2014: Malaysian Adult Nutrition Survey (MANS) Vol. II: Survey Findings*. Cited 33 times.
18. Institute for Public Health (IPH). Retrieved from (Accessed 26 May 2022)
<https://iku.moh.gov.my/images/IKU/Document/REPORT/NHMS2014-MANS-VOLUME-2-SurveyFindings.pdf>

- 19 Litton, M.M., Beavers, A.W.
The relationship between food security status and fruit and vegetable intake during the covid-19 pandemic ([Open Access](#))

(2021) *Nutrients*, 13 (3), art. no. 712, pp. 1-14. Cited 49 times.
<https://www.mdpi.com/2072-6643/13/3/712/pdf>
doi: 10.3390/nu13030712

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- 20 Ramadas, A., Tham, S.M., Lalani, S.A., Shyam, S.
Diet quality of Malaysians across lifespan: A scoping review of evidence in a multi-ethnic population ([Open Access](#))

(2021) *Nutrients*, 13 (4), art. no. 1380. Cited 5 times.
<https://www.mdpi.com/2072-6643/13/4/1380/pdf>
doi: 10.3390/nu13041380

[View at Publisher](#)

- 21 Nik Mustapha, NH, Abd Rashid, NK, Nasir, A.
Household Income and Expenditure Relationships: A Simultaneous Equation Approach
(2011) *Chinese Business Review*, 10 (6), pp. 395-405. Cited 4 times.
21

- 22 Picchioni, F., Goulao, L.F., Roberfroid, D.
The impact of COVID-19 on diet quality, food security and nutrition in low and middle income countries: A systematic review of the evidence ([Open Access](#))

(2022) *Clinical Nutrition*, 41 (12), pp. 2955-2964. Cited 66 times.
<http://www.elsevier-international.com/journals/clnu/>
doi: 10.1016/j.clnu.2021.08.015

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