

UNIVERSITI TEKNOLOGI MARA

**THE ASSOCIATION BETWEEN ULTRA-PROCESSED
FOOD (UPF) INTAKE AND MENTAL HEALTH
AMONG YOUNG ADULTS IN SELANGOR**

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ABSTRACT

Background: Ultra-processed foods (UPFs) are energy-dense, nutrient-poor products commonly consumed by young adults. Although their nutritional risks are established, the association between UPF intake and mental health, specifically depression, anxiety, and stress, remains unclear in Malaysian youth. **Objective:** To examine the association between UPF intake and mental health outcomes among young adults in Selangor, Malaysia. **Method:** A cross-sectional study involving 389 participants aged 18–29 was conducted using purposive sampling. Participants completed a validated UPF food frequency questionnaire and the Depression, Anxiety, and Stress Scale (DASS-21). Data was analyzed using descriptive and non-parametric statistical tests. **Results:** No significant associations were found between gender and UPF intake or mental health status. However, females reported higher levels of depression and anxiety, while males showed slightly higher stress. UPF intake was not significantly associated with depression, anxiety, or stress levels. Nevertheless, higher UPF intake correlated positively with increased energy, carbohydrate, fat, saturated fat, trans fat, sugar, sodium, and protein intake ($p < 0.001$). **Conclusion:** Although UPF intake was not directly linked to mental health outcomes, its association with poor dietary quality suggests potential long-term health risks. Promoting healthier eating habits among Malaysian youth is essential to support both physical and mental well-being.

Keywords: Ultra-processed food, Mental health, Depression, Anxiety and Stress, Young adults, Malaysia

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CHAPTER 1

INTRODUCTION

1.1 Research Background

The consumption of ultra-processed foods (UPF) has increased worldwide, including Malaysia, especially among young adults, as proven in their consumption (Ali et al., 2024). Ultra-processed foods are becoming more significant in modern diets, as they are industrially processed, extremely appealing, and energy-dense foods that contain a lot of refined sugar, saturated fats, artificial additives, and preservatives, which are usually rich in calories but extremely low in other nutrients. According to research, excessive use of UPF can have a harmful influence on physical health, contributing to obesity, cardiovascular disease, and diabetes (Monda et al., 2024), and certain types of cancer come after high UPF consumption, which usually comes from daily food environment, characterized by its convenience, affordability, and unlimited trending marketing usually in social media (Kliemann et al., 2022). According to Chen et al. (2020) there are almost 70% of fatalities globally are caused by non-communicable diseases (NCDs), including type 2 diabetes, cardiovascular disease, and some types of cancers. It is widely recognized that unhealthy eating habits are one of the factors that contribute to the prevalence of NCDs, and most of the unprocessed or minimally processed food nowadays has been dominated by ultra-processed food (Chen et al., 2020).

Ultra-processed foods (UPFs) typically provide very low amounts of essential nutrients, including iron, calcium, zinc, folate, and vitamin A. When these foods replace healthier options such as fruits, vegetables, and whole grains, the overall quality of the diet is reduced and declines (Haghighatdoost et al., 2022). As a result, the body may not receive the micronutrients it needs