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FACTORS INFLUENCING EATING BEHAVIOURS AMONG UNIVERSITY STUDENTS DURING THE COVID-19 PANDEMIC IN MALAYSIA

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DECLARATION

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LIST OF SYMBOLS AND ABBREVIATIONS

Abbreviations

WHO	World Health Organization
COVID-19	Novel Coronavirus 2019
SARS	Severe Acute Respiratory Syndrome
MERS-CoV	Middle East Respiratory Syndrome-Related Coronavirus
FAO	Food and Agriculture Organization



MOH	Ministry of Health Malaysia
MCO	Movement Control Order
MoHE	Ministry of Education
SA Health	South Australia Health
HMS	Harvard Medical School
SPSS	Statistical Package of Social Science
EB	Eating Behaviour
PI	Parental Influence
FP	Food Price
AS	Academic Stress

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ABSTRACT

Many university students reported changes in the foods they ate, how much they ate, and how often they snacked because the majority of students have returned to their families, with many taking on passive roles in activities that shape their eating behaviours during COVID-19. Therefore, this study empirically measures the extent to which parental influences, food prices, and academic stress influence eating behaviour among university students during the COVID-19 pandemic. The data for the study was collected through a survey with 384 respondents, all of which were recognized, university students. Data were analysed by descriptive analysis, frequency, and inferential analysis through SPSS version 26.0. The results of the Pearson correlation demonstrate a link between parental influence, food prices, academic stress, and eating behaviour. The findings indicated that the food price factor had the greatest influence on university students' eating behaviours during the COVID-19 pandemic in Malaysia. This research will be used by future researchers to do their research or to improve the quality of their research.

Keywords: Eating Behaviour, Parental Influence, Food Price, Academic Stress.

ABSTRAK

Ramai pelajar universiti melaporkan perubahan dalam makanan yang mereka makan, berapa banyak mereka makan, dan kekerapan mereka makan snek kerana majoriti pelajar telah kembali ke keluarga mereka, dengan ramai yang mengambil peranan pasif dalam aktiviti yang membentuk tingkah laku pemakanan mereka semasa COVID-19. Oleh itu, kajian ini secara empirikal mengukur sejauh mana pengaruh ibu bapa, harga makanan dan tekanan akademik mempengaruhi tingkah laku makan dalam kalangan pelajar universiti semasa pandemik COVID-19. Data kajian dikumpul melalui tinjauan dengan 384 responden yang kesemuanya dikenakan sebagai pelajar universiti. Data dianalisis secara deskriptif analisis, kekerapan, dan analisis inferensi melalui SPSS versi 26.0. Keputusan korelasi Pearson menunjukkan hubungan antara pengaruh ibu bapa, harga makanan, tekanan akademik, dan tingkah laku makan. Penemuan menunjukkan bahawa faktor harga makanan mempunyai pengaruh terbesar terhadap tingkah laku makan pelajar universiti semasa pandemik COVID-19 di Malaysia. Penyelidikan ini akan digunakan oleh penyelidik akan datang untuk melakukan penyelidikan mereka atau untuk meningkatkan kualiti penyelidikan mereka.

Kata kunci: Tingkah Laku Makan, Pengaruh Ibu Bapa, Harga Makanan, Tekanan Akademik.

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The research for the introduction chapter will look at the factors influencing eating behaviours among university students during COVID-19 in Malaysia. This section will explain the background of the study. A problem statement, research objectives, and research questions are then presented to provide a clear statement of the study. The chapter continues with the significance of the study, the definition of the term, and closed with a summary of the chapter.

1.2 BACKGROUND OF THE STUDY

The pandemic of coronavirus has shocked the whole world presently. According to the World Health Organization [WHO] (2020), coronaviruses are members of a large group of viruses that cause respiratory diseases such as severe acute respiratory syndrome [SARS] and middle east respiratory syndrome-related coronavirus [MERS-CoV]. The latest and most pandemic coronavirus around the world is now known as Novel Coronavirus 2019 [COVID-19]. According to the WHO (2020), the origin of the COVID-19 virus has been linked to Hubei Province, China, and is fast spreading to pandemic levels, with several countries reporting a sharp increase in the number of patients. The

WHO announced COVID-19 as a pandemic on 11 March 2020. As of January 19, 2021, more than 350.1 million COVID-19 cases have been reported in more than 224 countries, and it has resulted in over 5.61 million deaths while over 279.7 million patients have been recovered (Worldometer, 2021).

According to the Ministry of Health Malaysia [MOH] (2020), when a person is infected with COVID-19, the individual will cough or sneeze. So, water droplets from the nose or mouth are transmitted from one person to another. These droplets attach to the object and the surface around it. Others who touch these objects or surfaces are at risk of getting a COVID-19 infection. As reported by the MOH, the first COVID-19 was discovered in Malaysia on January 25, 2020, and was associated with three Chinese nationals who had previously been in close touch with an infected individual in Singapore. The entry of the first case of COVID-19 in Malaysia marks the first wave of the spread of this pandemic is every day the Covid cases are increasing. The latest status of COVID-19 in Malaysia as of 19 January 2020 at noon, the total number of cases is 2.86 million, the number of new cases is 3,074, and the total number of deaths involves 31,957 people.

The Malaysian government has taken precautionary measures in responding to the COVID-19 pandemic by creating the Movement Control Order [MCO] on 18 March 2020. However, despite the importance of preventative measures in avoiding the development of COVID-19, eating behaviours are affected. (The Food and Agriculture Organization [FAO] 2020; Benton, 2020). While according to Renzo et al. (2020); Batlle-Bayer et al. (2020), the COVID-19 pandemic had a significant influence on human health, resulting in lifestyle changes such as social confinement at home, as well as changes in eating behaviour by practising eating food at home. This is because as a precaution at the

onset of the pandemic, certain establishments, such as restaurants and other recreational services, have closed their doors (Nicola et al., 2020).

During the pandemic, people are required to stay at home, which increases fear, panic, anxiety, and stress levels (A. Radwan & E. Radwan, 2020). Currently, cross-sectional studies of the general adult population have been used to determine the effects of COVID-19 on eating behaviour. This research has reported that during COVID-19, When going to the grocery shop or supermarket, customers experience a variety of problems, resulting in a decrease in fresh food intake, including fresh fruits, vegetables, and raw items, in their balanced diet. (Mattioli et al. al., 2020). This is because, according to Abd Rahman (2021), the announcement of MCO has triggered panic buying which has caused many people to buy durable products. Excessive consumption of unhealthy foods increases the danger of chronic disease, which exacerbates the COVID-19 conditions. (Renzo et al., 2020).

Meanwhile, some studies have revealed that there is a shift toward healthy food intake and avoidance of unhealthy foods during this pandemic. A rise in the consumption of healthy eating and a move toward domestic products (Hassen et al., 2020) is needed to ensure food safety. In addition, Blaszczyk-Bebenek et al. (2020) found that COVID-19 caused considerable alterations in adult eating during confinement. In this regard, half of the participants avoided eating out during the lockdown. Snacking between meals has become more popular among individuals. According to A. Radwan et al. (2021), during the COVID-19 pandemic, people ate more eggs, potatoes, candies, canned meat, and alcohol, whereas fast food, quick soups, and energy drinks are consumed far less often.

The COVID-19 pandemic has also hurt the lives of university students throughout Malaysia. All educational institutions in Malaysia, including kindergartens, universities, schools, and colleges, were likewise shuttered by the government (Shah et al., 2020). The safety of students during the closure period must be considered by educators. In Malaysia, university campuses will be closed from March 2020 and it is forcing university students in Malaysia to adjust their daily lives and eating behaviours. The closure of the university campus coincided with the introduction of limits on staying at home following the outbreak of the COVID-19 outbreak in March 2020, which also caused the Malaysian education system to shift from face-to-face teaching to online learning.

In this regard, the daily activities, eating behaviours, nutritional requirements, and purchasing behaviours of university students have altered or will change, with some students saying that the closing of COVID-19 has impacted their family's financial situation. (A. Radwan & E. Radwan, 2020). Previous studies have found that homes with university students have a greater rate of change in eating behaviour than those without (Hagedorn & Olfert, 2018). According to Owens et al. (2020), this situation is further compounded by the pandemic implications of COVID-19 found that 34.5% of university students interviewed claimed that their eating behaviours had changed. According to a recent study, eating behaviour among university students during abstinence at home can become healthy or poorly (Ammar et al., 2020; Tan et al., 2021).

Every student needs excellent health to carry out everyday tasks without distractions or difficulties and to fully enjoy their academic careers during COVID-19. This includes a variety of aspects such as lifestyle, nutrition, fitness, and health. Nutrition, for example, has an impact on an individual's ability to maintain good health. This is

because what we consume reflects what is going on in our bodies. Healthy eating behaviours provide good health; otherwise, unhealthy eating behaviours can affect health or cause disease.

1.3 PROBLEM STATEMENT

The government's instruction to sit at home is direct and brings about changes to the eating behaviours of university students. During this period, eating behaviours are one of the important issues to be taken seriously. According to Powell et al. (2021), many university students reported changes in the foods they ate, how much they ate, and how often they snacked. In this regard, the majority of students have returned to their families, with many taking on passive roles in activities that shape their eating behaviours.

According to Pung et al., (2021) since universities are closed and most students are compelled to study from home using online learning, many university students are obliged to eat all of their food at home. As a result, parents are in charge of their children's eating behaviours throughout the day (A. Radwan et al., 2021). By making some foods more accessible than others and serving as role models for behaviour, they influence children's development of eating behaviours (Scaglioni et al., 2018). Parental food choice motives were associated with variations and alterations in nutritional quality during closure compared to the time preceding closure (Marty et al., 2021). As referred by Philippe et al. (2021), to limit the risk of infection while delivering food to children, parents pay closer attention to the quality of the food. This means that parents may promote healthy eating by guiding food choices and the consumption of home-cooked foods to minimize contamination.

According to A. Radwan et al., (2021), food price influences eating behaviours among students during the COVID-19 pandemic. This is because, there are students who have financial constraints while studying online such as purchasing equipment such as a laptop and an internet data plan (Apuke et al., 2018). In addition, according to A. Radwan et al. (2021), their families are impoverished and have lost their source of income since the present lockdown as a result, they have no option but to supply for their needs, which they do by purchasing the cheapest food products. University students from medium or low-income socioeconomic families who have less money, and poor living conditions are more likely to experience changes in eating behaviours and have higher levels of nutrition-related disease (French et al., 2015). They need to be frugal in terms of buying a portion of food during this pandemic.

Apart from that, the university may be a source of substantial stress for many students during this pandemic since the closure of the university, it reinforced remote and online learning to prevent the increasingly massive spread of the COVID-19 virus (Mesa et al., 2021). University students are involved with stress because they have to learn with new learning methods. Meanwhile, as noted by Zurlo et al., (2020), university students have identified internet connections, assignment overload, and group project issues, as the principal drivers of academic stress during online learning. According to Choi (2020); Pung et al. (2021), distance learning at home does not only increase the higher stress level but also affects health behaviours, which include eating behaviours. According to Jacques et al. (2018), stress reduces the importance of personal physiological sensations like hunger while increasing the salience of external food cues.

One of the most important needs among university students is health which will determine the improvement of their peace and development. Moreover, the COVID-19 pandemic may have consequences on regular activities, which are reflected in eating behaviours. Therefore, this study is conducted to examine the factors that influence eating behaviours among university students in Malaysia during COVID-19. This study focuses on three aspects of the factors that influence eating behaviours which are parental influence, food price, and academic stress.

1.4 RESEARCH OBJECTIVES

1. To identify the relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia.
2. To examine the relationship between food price and eating behaviours among university students during the COVID-19 pandemic in Malaysia.
3. To determine the relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

1.5 RESEARCH QUESTIONS

1. What is the relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia?
2. What is the relationship between food price and eating behaviours among university students during the COVID-19 pandemic in Malaysia?
3. What is the relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia?

1.6 SIGNIFICANCE OF THE STUDY

This research examines the factors that influence eating behaviours among university students in Malaysia during the COVID-19 pandemic. This will demonstrate the trend of how students in Malaysia adopt eating behaviours in their daily lives during COVID-19. As a result, this research may be used as a reference to determining the factors that contribute to the occurrence of eating behaviours among university students. This means this research will be used by future researchers to do their research or to improve the quality of their research.

This research will also benefit an industry that holds research to criteria different than those set by academic publications, such as investment returns. Students gained a distinct viewpoint after being exposed to the research process rather than merely discussing journal notions or even writing in academic publications. Even better, by participating in industry research, students are exposed to real-world surroundings and expectations. Ministry of Education [MoHE] and the Ministry of Health [MOH] can establish mechanisms to encourage more research and development in terms of eating behaviours through the Institute as one of the inputs of information about students' eating behaviours whether balanced or otherwise. This would be able to create a wellness program to practice healthy eating behaviours among university students during and post COVID-19.

1.7 DEFINITION OF TERMS

Eating Behaviours

Definition for eating behaviours is the way a person or group eats. It determines how and why individuals eat, what they eat, and with whom they eat, as well as how they get, store, utilize, and dispose of food (LaCaille, 2019).

Parental Influence

Parental influence refers to the involvement of parents in their children's eating habits, as well as the genes and environment that they provide (Savage et al., 2007). They impact the development of children's eating preferences and habits, for example, by giving some foods over others and performing as role models for eating practices.

Food Prices

Food prices are referred to as the prices charged to consumers for food (Max & Hannah, 2021). The prices set for healthy foods are high compared to foods that are high in fat and calories since it is rich in organic and natural ingredients.

Academic Stress

Academic stress is the most frequent emotional or mental situation that students encounter when studying (Hj. Ramli et al., 2018). Stress is caused due to various issues, including intrapersonal, interpersonal, academic, and environmental factors (Ramadhani &

Mahmudiono, 2021). Academic stress is the most significant cause of stress in students that influences eating behaviours when compared to other kinds of stress.

1.8 SUMMARY

This research will be focused on the eating behaviours of university students during COVID-19 in Malaysia. The researchers briefly discuss the COVID-19 implications for students that change their eating behaviours regularly. The purpose of this research is to identify the factors influencing eating behaviours among university students in Malaysia during the COVID-19 pandemic including parental influence, food price, and academic stress.

The researchers have a few questions to examine the factor influencing university students' eating behaviours. This study is important for students, universities, and future researchers to reference within a similar research topic. Lastly, the definition of terms such as eating behaviours, parental influence, food price, and academic stress was explained.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter will discuss eating behaviours among university students in Malaysia during the COVID-19 pandemic as the dependent variable while parental influence, food price, and academic stress as the independent variables. Then, the relationship between independent variables and the dependent variable will be explained more with a conceptual framework and hypothesis. The overview will wrap up the entire discussion.

2.2 EATING BEHAVIOURS AMONG UNIVERSITY STUDENTS DURING THE COVID-19 PANDEMIC.

According to LaCaille (2019), eating behaviours can be defined as the way a person or group eats. It determines how and why individuals eat, what they eat, and with whom they eat, as well as how they get, store, utilize, and dispose of food. Both eating healthily and poorly can become behaviours. According to a recent study, eating behaviour among university students during abstinence at home can become healthy or poorly (Ammar et al., 2020; Tan et al., 2021).

As noted by Smithson (2021), healthy eating behaviours refer to sufficient food intake to meet the body's requirements in adequate quantities. Humans need food and

vitamins for growth; since healthy eating behaviours should have all the nutrients the body needs to function normally. Protein, carbohydrates, fat, vitamins, and minerals are among these nutrients. Meanwhile, unhealthy eating behaviour is described as the act of consuming insufficient amounts of nutritious foods regularly, or the consumption of excessive amounts of low-fibre, high-fat, high-salt, and high-sugar meals and drinks (South Australia Health [SA Health], 2021). According to Yau et al. (2013), obesity and malnutrition are significant conditions that can be exacerbated by unhealthy eating behaviours as the person's health is determined by how they eat.

Due to the COVID-19 pandemic in Malaysia, physical lectures at universities were replaced with virtual lectures (Tan et al., 2021). As a result, many university students may have returned home and lived with family members. Before COVID-19, university students frequently visited restaurants to enjoy meals and socialize which affected obesity and overweight problems (Ma et al., 2021). However, when COVID-19, the closure of all economies including restaurants has influenced many students to switch to home-cooked food because there are no other options (A. Radwan et al., 2021). Thus, eating behaviours become more passive (Powell et al., 2021). According to Davitt et al. (2021), more than 50% of the surveyed university students are eating meals with their families. Instead of dining out, students who live with their families are more likely to consume home-cooked meals.

Apart from that, some food quantity items have dropped during COVID-19 as opposed to the previous time, such as eating fast food, where the percentage of students eating fast food four times or more per week was substantially lower during COVID-19 compared to before this pandemic (A. Radwan et al., 2021). This could be due to the closure of restaurants, shops, and other establishments that serve fast food to students, or

fear of contracting COVID-19 after eating outside the home. Nevertheless, there are studies also showing that fast food intake or processed foods also increase among university students during COVID-19 (Jalal et al., 2021). This is because there are restaurants that provide online food delivery to customers during COVID-19. It allows university students to order food online because it saves time, and the price is cheap.

According to A. Radwan et al. (2021), some food quantities rose during COVID-19, such as fresh vegetable and fruit consumption. During the pandemic, some students from high-income households discovered that eating more vegetables and fruits helped them improve their health, grow their bodies, and boost their immune. In addition, when COVID-19, parents were found to be their primary advisors in consuming fruits and vegetables. Choi (2019) described a similar occurrence in which the majority of university students ingested fruits and vegetables based on family suggestions. During the COVID-19 pandemic, they should eat fruits and vegetables to strengthen their immune systems (Aman & Masood, 2020).

According to Pung et al. (2021), during the COVID-19 pandemic, more than 90% of university students consumed snacks. Snacks are foods or beverages that are consumed in between meals (Hess et al., 2016). Previous studies have revealed that chocolate, chips, biscuits, and bread are the most popular snacks (Pung et al., 2021). These studies also show that students with higher stress levels are more prone to participate in unhealthy eating behaviours such as snacking on sugary meals, carbohydrate-rich foods, and processed foods. Furthermore, another reason university students consume snacks in their everyday eating is boredom (Powell et al., 2021). University students prefer salty, and crisp foods over healthier food choices as snacks and they will take snacks while doing

assignments, watching television, playing games and hanging out with friends (Mithra et al., 2018).

Moreover, previous studies show that many university students tend to skip meals, particularly breakfast. According to Pendergast et al. (2016), meal skipping can be referred to as skipping one or more main meals during the day. A study published by Pung et al. (2021), among university students in Malaysia, revealed that 41.98% of the respondents showed inconsistent eating behaviours, such as irregular meal intake and skipped meals. during the COVID-19 pandemic by skipping breakfast, lunch, or dinner. Meal skipping during the COVID-19 pandemic may have been caused by mental illness, a shortage of food available in physical stores, or excessive sleep (Powell et al., 2021). It was reported that regularly skipping meals can lead to nutrient deficiencies, which are essential for a person's growth and well-being (Ofori et al., 2019).

2.3 PARENTAL INFLUENCE ON EATING BEHAVIOURS

Parents are responsible for caring for and nurturing children. According to Philippe et al. (2021), parental eating behaviour had a massive influence on children's eating behaviour, which may have changed during closure to have a more complete picture of COVID-19's pandemic impacts on the food domain. They will depend on their parents for food intake (Poti & Popkin, 2011) in terms of what their parents buy and why they buy food for their children has an impact on children's eating behaviours (Rigal et al., 2012).

Some students may have returned to previous influences held in parenting by repeating behaviours and learning concepts that routines reflect the thoughts, behaviours

and tastes contained by individuals as a result of the social structure in which they live. (Jastran et al. al., 2009). According to Powell et al. (2021), students may feel comfortable returning to the influence of their parents during this outbreak. This is due to the influence of both parents and students in the form of mutual entertaining in which parents encourage the intake of food in high-quality and large quantities by avoiding the intake of unhealthy snacks.

Students with highly educated parents had a higher effect on food quality and quantity during the COVID-19 period than during the preceding period. There are many factors, including parental education level (Kaukonen et al., 2019; Lehto et al., 2017), that influence the food consumption and eating behaviours of university students (Kabir et al., 2018). Because highly educated parents have a good understanding of food and nutrition, they influence their children's eating habits and food consumption. As a result, they promote healthy eating through advising on food selection and self-cooked meal intake (Banna et al., 2015; Lehto et al., 2017). As is generally known, highly educated parents have a better chance to land a good job with a steady income, so they feed their children high-quality, nutritious meals, especially during health crises and disasters (A. Radwan et al., 2021).

The growing spread of the COVID-19 pandemic around the world is causing many of their parents to be more sensitive to their food safety to reduce the risk of infection (Lehto et al., 2017). According to Duda-Chodak et al. (2020), although food and water are not considered direct transmission paths for COVID-19, it is impossible to ignore the fact that the virus can survive for several days on various surfaces, particularly in environments with poor hygiene as well as contamination of animal's products consumed by humans, such as pigs and rabbits (Yekta et al., 2020). The parents are

becoming increasingly hesitant to buy their food, necessitating the consumption of home-cooked meals as well as increased consumption of vegetables and fruits (Abd Rahman et al., 2021) to avoid contamination.

Parental influence is an independent variable because it may be a good indication of a person's relationship with food. When students live with families during COVID-19, parents perform leadership roles, such as purchasing and preparing food for household use. Parents will fulfil a role in providing nutritious and high-quality food to children for well-being and a sustainable lifestyle.

2.4 FOOD PRICE INFLUENCING EATING BEHAVIOURS

Food price was frequently identified as a crucial factor in determining and arbitrating eating behaviours among university students (Kabir et al., 2018). Consumers will select the cheapest product over the healthier one. According to Carlson et al. (2012), when the price is calculated per calorie, unhealthy foods are high in calories since they contained high curated fat and added sugar tend attends a low price per calorie. An intervention is judged important to eliminate disparities in access to high-quality food because of the significant rise in food prices (Darmon et al., 2014).

University students may have a substantial impact on their life expectancy following the decline of family economic conditions during COVID-19, which was the worst before the COVID-19 pandemic (A. Radwan et al., 2021). According to A. Radwan & E. Radwan (2020), the majority of families report the loss of their incomes during this pandemic and it influences university students to buy and eat low-quality nutritious food than those with middle and higher-income incomes during COVID-19. The quality of the

food consumed is directly proportional to its price. As noted by several studies, healthy food is more expensive, which leads to an increase in the number of people buying less nutritious items (Darmon et al., 2014). In this aspect, it encourages university students to avoid high-quality food by buying unhealthy food. Given the prices of healthier, higher-quality foods including vegetables, fruits, whole grains and high-quality meats, increasing dramatically, they are choosing low-cost options to meet family demand (A. Radwan et al., 2021). The majority of them were aware of the importance of eating healthy food during COVID-19 to boost self-immunity (Abd Rahman 2020), such awareness will not be able to prevent or minimize the intake of unhealthy foods due to high food prices on healthy foods.

Meanwhile, some studies identify that increase in food prices also influences university students to eat homemade food during this COVID-19 pandemic. According to Abd Rahman (2020), during COVID-19, households are frugal by cooking at home rather than purchasing food from a store, either online or in person. Several studies show rising prices of fresh goods including fruits, vegetables, and fresh raw materials (Mattioli et al., 2020) resulting in their parent's increase in frozen, and canned ingredients whether canned vegetables, fruits, or meat (A. Radwan et al., 2021). These studies suggest since it contains a high content of salt, sugar or trans fat, it tends to have a low price. However, according to Mills et al. (2017), when people prepare home-cooked foods, they are more likely to make healthier choices at those times when they eat because they have more control over ingredients and portion sizes while cooking.

Food price is an independent variable because it may be a good indication of a person's relationship with eating behaviours with unhealthy food prices being

exceptionally low in comparison to healthy food pricing. During COVID-19, university students from families who lost income used cost-saving methods to buy and make food.

.2.4 ACADEMIC STRESS INFLUENCING EATING BEHAVIOURS.

Academics have been frequently reported to be stressful during this pandemic (Malik et al., 2021). These studies show that many students were stressed as a result of the sudden switch to online learning during COVID-19 where some students were unable to access instructional resources via online platforms. Consequently, their eating behaviours changed because of these unexpected events (Husain et al., 2020). According to Mental Health Foundation (2021), stress is defined as the feeling of being overwhelmed or unable to deal with mental or emotional tension. As noted by Harvard Medical School [HMS] (2021), the discomfort associated with hunger, combined with the discomfort connected with stress, renders any attempt to regulate one's food intake futile, allowing for food disinhibition.

In the context of this study, during the COVID-19, some studies have found that academically stressed students consume more unhealthy foods than non-stressed students (Choi, 2020; Pung et al., 2021). Academically stressed students are more prone to consume sweets and high-fat snacks (Papier et al., 2015; Aljaber et al., 2019). Online learning during the COVID-19 pandemic can also make it more difficult for university students with a low sense of control because of academic stress, which can lead to overeating (Maheshwari, 2021). They eat more fat and calorie-dense meals because they stimulate serotonin release in the brain, which is involved in mood regulation and pleasure experiences, but it still has an impact on their health (Caso et al., 2020). Meanwhile, Choi (2020) states that stressed students would utilize food as a maladaptive coping mechanism

to manage their stress. The Psychosomatic Theory of Obesity (H.I. Kaplan & H.S. Kaplan, 1957) was used to explain emotional eating, which claims that people who have a negative emotional eating style use food as a maladaptive pressure mechanism to relieve stress.

Moreover, skipping meals is linked to stress and depression, since there is a study suggesting that skipping meals may be both a cause and an effect of stress (Yau & Potenza, 2013). Even though some students ignore their hunger signals and do not eat for long periods, stress is now a major cause of influencing the eating behaviours of university students during this pandemic. According to Badrasawi et al. (2020), the majority of university students lose track of their hunger and lack the motivation to eat properly. Those who skip eating are so preoccupied with their stress that they miss or ignore their hunger signs (Albers, 2020). As noted by Schmader (2020), during online learning, students have started skipping meals to get more work done; the pressure of completing an assignment before the deadline adds to the already stressful time, which includes little or no eating time. This study revealed that university students are more concerned with finding out how to get excellent grades than with food quantity and quality.

Since academic stress and eating behaviours appear to be part essential, academic stress can be an independent variable. Consuming unhealthy meals to cope with stress has a major impact on the risk of negative health outcomes, especially among groups of individuals like university students who are prone to persistently high levels of stress.

2.6 HYPOTHESIS

The research's hypothesis is to determine if there are any relationships between dependent and independent variables. The hypothesis of the research is:

H₁: There is a significant relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

H₂: There is a significant relationship between food price and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

H₃: There is a significant relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

2.7 CONCEPTUAL FRAMEWORK

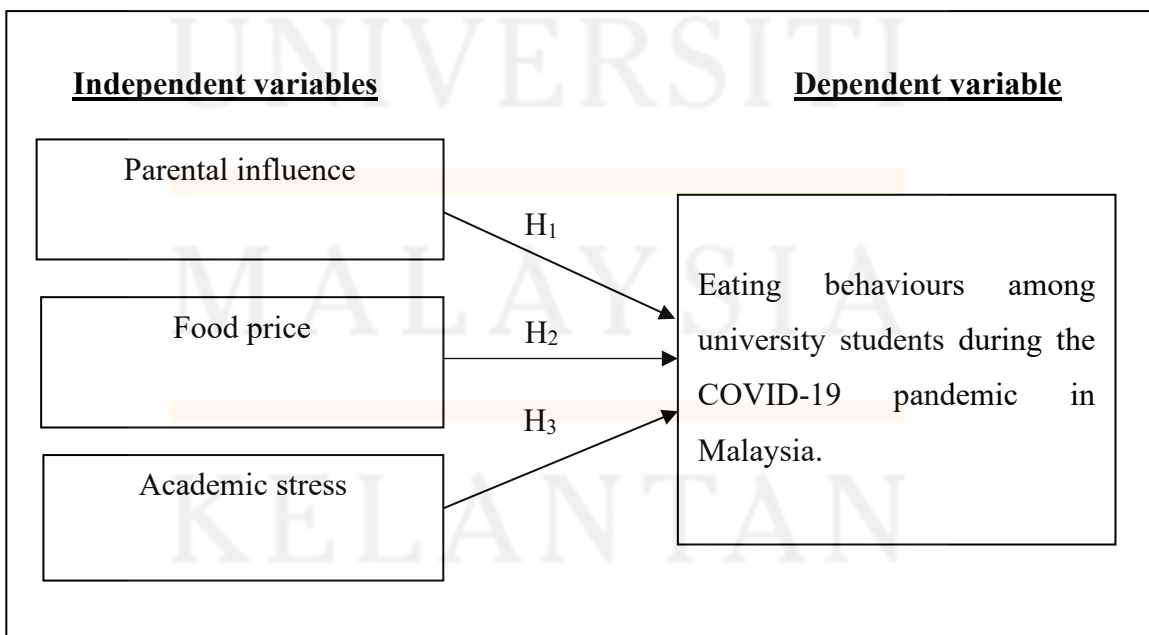


Figure 1: Research Framework

A research framework will be presented based on the literature review to determine the relationship between parental influence, food price, academic stress and eating behaviours among university students during the COVID-19 in Malaysia. Figure 2.1 shows the presented conceptual framework. Three independent variables have been proposed: Parental Influence, Food Price, and Academic Stress. The dependent variable is eating behaviours among university students during the COVID-19 in Malaysia.

2.8 SUMMARY

To sum up, this chapter discussed the factors that influenced the components studied. This chapter has discussed a variable or characteristic that is stated in a specific or applied way. By setting the independent variables and dependent variables, the researcher can analyse the relationship between all the independent and dependent variables. Based on the literature review, the proposed conceptual framework will be created.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The main point of the study is to find out what factors influence eating behaviours among Malaysian university students during the COVID-19 pandemic. This study will use a quantitative approach. When starting with a hypothesis and searching for confirmation or disconfirmation of that hypothesis, the quantitative technique is applied. The quantitative approach emphasizes statistical, mathematical, or numerical analysis of data acquired through polls, questionnaires, and surveys. This approach emphasizes collecting numerical data and distributing it to many individuals or explaining a specific phenomenon. The results of the analysis will give information on the factors that influence eating behaviours, including parental influence, food price, and academic stress. This chapter will go through the research design, population, sample size, sampling method, data collection method, research instruments, and data analysis in further detail.

3.2 RESEARCH DESIGN

The research design is a strategic structure that connects the research topics to the implementation of the research. A set of rules for setting up data collecting and analysis settings in a way that aims to balance relevance to the research objective with the purpose of research. (Akhtar, 2016).

This research will use a quantitative approach. The survey for this research has conducted through a questionnaire. The quantitative approach is used to address problems in research that need a description or explanation of the connection between the independent and dependent variables. The sample chosen in this research consists of university students aged 19 and above. Students selected for this survey will answer questions about what are the eating behaviours of university students and the factors that influenced them during this pandemic. Quantitative and descriptive approaches are used to conduct research, with questionnaires as the research instrument. The questionnaire is designed to accumulate all information about the objective of the study.

A demographic section with multiple options will be included in the questionnaire. The decisive choices must be chosen by the respondents. In parental influence, food price, and academic stress, the Likert scale will be applied to determine the factor that influences eating behaviours among university students during this pandemic. The choice is between 1 which strongly disagrees to 5 which is strongly agreed. The newest version of Statistical Package Social Science [SPSS] will be used for all data analysis. SPSS is a program that analyzes, transforms, and creates a distinctive pattern from a set of data variables. Moreover, the user can quickly comprehend the result since the output is obtained through graphical representation. (Noels, 2018). In this research, SPSS software will be used to generate a result from the data obtained through questionnaires given to respondents.

3.3 POPULATION

People who are part of the same ethnic group or reside in the same geographic region and can interbreed are referred to as a population. A population is a group or entity

that can be identified by at least one common feature for data collection and analysis. The sample frame is necessary for determining the population. The list of objects or individuals for which a sample is collected from a population refers to the sampling frame (Scherpenzeel et al., 2017).

In this study, researchers will research factors influencing eating behaviours among university students in Malaysia during the COVID-19 pandemic, thus university students in Malaysia, who help compensate for the study's population, are chosen as potential respondents. Researchers collected data on students from public universities and private universities from all levels of education. In addition, students at the variable level of education are also chosen because they have a variety of demographic backgrounds, including income, social position, and knowledge, which can give a variety of data.

To collect data on a wide population, a sample is frequently taken to investigate parental influence, food price, and academic stress, all of which are factors that influence eating behaviours during the COVID-19. Hence, the population of the research could assist in reaching the research aim and objectives of determining the factors that influence eating behaviours among university students in Malaysia during the COVID-19.

3.4 SAMPLE SIZE

According to Lavrakas (2018), the term "sample size" typically refers to the number of units from which data is collected. This sample size also uses a fixed measure to survey a large population of respondents because during the survey process, many respondents, realistically, it is not possible to get answers or results from everyone.

Therefore, it is useful to take a random sample of individuals representing the population as a whole (Memon et al., 2020).

According to the Ministry of Higher Education (2020), the number of university students with Diplomas, Bachelor’s Degree, Master’s, and PhD. in Malaysia is 526,655 812,520, 110,141 and 57,752 students respectively. The population and the number of students are determined to receive the real figure of the population in this research. The population and number of students are shown in the table below.

Table 3.1: The population of university students in Malaysia

Level of Education	Total Students
Diploma	526,655
Bachelor’s Degree	812,520
Master	110,141
PhD.	57,752
Sum	1,507,068

Source: Ministry of Higher Education, 2020

In this study, the number of students is used to determine the sample size. Due to a large number of students, the study sums up the number of students which is 1,507,068 students. Therefore, the total sample size that will be used is 384 people which represents the total population of university students in Malaysia. The use of sample size is 384 students is also very suitable for use because this number of respondents able is to cover the entire population in the study area. The study will distribute 384 questionnaires to the respondents.

<i>Table for Determining Sample Size of a Known Population</i>									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size *Source: Krejcie & Morgan, 1970*

Figure 3.1: The determined sample size of a known population

3.5 SAMPLING METHOD

There are two types of sampling techniques in business research, which are non-probability and probability sampling techniques (Sekaran & Bougie, 2009). In this regard, the probability sampling technique requires a general specification of simple random sampling. Subjects in the population are randomly chosen using either a random number table or a random number generator, ensuring that everyone in the population has the same chance of being chosen for the sample.

A non-probability convenience sampling method will be chosen as the sampling method. Instead of selecting from whole populations, convenience sampling allows researchers to choose any of their preferred respondents who are accessible (Etikan, 2016). Furthermore, the convenience sampling strategy used in this study since this method may save the researchers time and money while collecting data. The respondents of the questionnaire are university students. Most university students in Malaysia have various eating behaviours which are healthy behaviours or unhealthy behaviours. Hence, respondents were randomly selected from various universities in Malaysia as any person could answer the given questionnaire and data will be collected based on their answers.

3.6 DATA COLLECTION METHOD

One of the most important parts of any research project is the data collection method. The research involved preliminary information collected using planned procedures, however, the sample size is small. The aim is to place the method to the test and find out all of the details that need to be addressed before proceeding to the primary data collecting. Pilot research can be conducted in both quantitative research and qualitative research. This research focuses on quantitative research by using primary data.

The data obtained by the researcher through questionnaires for a project from first-hand sources or for particular research purposes through a variety of sources such as experiments, interviews, surveys, and so on is referred to as primary data. Primary data is often taken from the same source as the original statistics and is regarded as the most valuable sort of data in the study. A Google form may be used to create a questionnaire to collect data. The questionnaire is being used to collect information about the factors that influence eating behaviours among university students in Malaysia during the

COVID-19 pandemic, and it will be disseminated online owing to a problem with an infectious disease that has afflicted the country, COVID-19.

3.7 RESEARCH INSTRUMENTS

The questionnaires are divided into five sections which consist of Sections A, B, C, D and E. The data for this study will be collected by a self-completed questionnaire. This questionnaire is being modified and developed to take into consideration the different backgrounds of the responders. To prevent any problems, the questionnaire is written in two languages which are English and Malay.

The analysis will use a closed-ended questionnaire with standardized items. Closed-ended questions are simple to answer and do not take much time because responders just have to choose one of the available response alternatives. They do not have to think too hard and may write their responses on their terms. Some responders are uncertain what the question is asking, but as they evaluate the response options, they get a clearer understanding of what is being asked. According to Sekaran and Bougie (2009), the interval scale, helps researchers execute numerical operations in data collecting, such as estimating the size of individual preference changes. Each of the research instruments is being adapted and developed into five sections, with the Likert-scale instrument being used to measure the amount of agreement, as previously indicated.

The first section is Section A, questions in Section A questions are about the respondent's demographic information such as gender, age, and marital status. Meanwhile, Section B is about students' eating behaviours during the COVID-19 pandemic. Section C is about respondent's feedback on parental influence on eating

behaviours, Section D is about respondent's feedback on food price on eating behaviours, and Section E respondent's feedback on academic stress on eating behaviours.

Section A will focus on the respondent's demographic information, such as gender, age, educational level, marital status, and race. There are fixed alternative questions in Section A that allow respondents to select the choice that most closely approximates their viewpoint. In addition, the determinant-choice question, which is a fixed-alternative question in which the respondent must choose from a set of options, is also used in section A.

In detail, Section B will contain questions designed to determine the extent to which respondents' eating behaviours changed during the COVID-19 pandemic. The questions pertained to respondents' food intake patterns on healthy eating behaviours or unhealthy eating behaviours such as eating at home, intake of fruits and vegetables, skipping meals, and snacking. The research instrument was adapted from Eating habits among primary and secondary school students in the Gaza Strip, Palestine (A. Radwan et al., 2021).

Section C is to examine the influence of parents on respondents' eating behaviours. In this section, the Likert scale is used to determine the level of agreement among respondents. The question discusses the respondent's food purchase and consumption and also includes the question of the type of food recommended by the parents during COVID-19 to the respondent as well as the importance and function of its intake. This section will assess respondents' understanding of the influence of parents on their eating. This instrument is adapted from the instrument Dietary Patterns of

Malaysians During the Movement Control Order (MCO) During the Covid-19 Pandemic (Abd. Rahman, 2020).

Section D is to determine the food price influencing respondents' eating behaviours. Questions will consist of respondents buying food, the type of food they eat when experiencing financial constraints, and food prices set when COVID-19 is expensive or not for healthy and unhealthy foods. This section is required to assess whether cost savings influence respondents' healthy or unhealthy eating behaviours. The food price instrument is an adaptation of a previous research question based on the Development of a questionnaire to assess people's food choices determinants. (Ferrao et al., 2017); Dietary Patterns of Malaysians During the Movement Control Order (MCO) During the Covid-19 Pandemic (Abd. Rahman, 2020).

Section E is a question that discusses the factors that contribute to academic stress among respondents. This section will also contain questions that can be used to obtain information about respondents' dietary choices when experiencing academic stress. This investigation was designed to look at how academic stress persuaded respondents to adopt healthy or unhealthy eating behaviours. The instrument on academic stress is an adaptation of previous research questions based on Academic stress is associated with emotional eating behaviour among adolescents (Ramadhani & Mahmudiono, 2021).

According to Ogden and Lo (2012), Likert scales employ determined response forms and are used to assess attitudes or opinions. The Likert Scale is a five-point scale that allows people to pick. The closed-ended questionnaire ratings range from 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, and 5 – Strongly Agree on a 5-point Likert scale. Below is an example of a Likert 5 point.

3.8 DATA ANALYSIS

Data analysis can be defined as the methodical application of scientific approaches to express, explain, summarize, and evaluate data to derive useful information. When conducting a research experiment, certain measures are taken. The data will be evaluated using the SPSS version in this research. The Statistical Package for the Social Sciences [SPSS] is a program-based window for data entry and analysis that may be used to make tables and pie charts. (Gogoi, 2020). It allows both descriptive and bivariate statistics and numerical result predictions for group identification. The researcher obtains data for this study's data analysis and does frequency analysis, descriptive analysis, reliability analysis, and correlation analysis.

3.8.1 FREQUENCY

The researchers' questionnaire's Section A formed the basis for this frequency distribution test. As previously stated by the researcher, Section A is a demographic profile that includes the respondents' personal information. Gender, race, age, marital status, and educational level are among the profile of the respondents included in the survey.

3.8.2 DESCRIPTIVE ANALYSIS

In Sections B, C, D, and E, the researchers will use descriptive analysis to characterize the level of agreement or disagreement. Researchers can use descriptive analysis to gather data in a more efficient and useful manner. For three independent factors and the dependent variable, Table 3.2 shows the number of respondents

deniesdeny that agree or disagree with the statements. As a result, descriptive analysis converts raw data into a format that can be understood and interpreted to provide descriptive information (Loeb, 2017).

Table 3.2: The relationship between Scales and Level of Agree

Range of scales	Level of categories
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

The scale score ranges from 1 shows the level of categories of disagreeing is strong. When the range of scales 2, indicates disagrees result while the range of scales 3 is neutral. When the values range from 4, it scales the level of disagreement as agree. It shows strongly agree when the range is 5.

3.8.3 CORRELATION ANALYSIS

A correlational analysis is a statistical approach for determining the strength of a relationship between independent variables (IV) and dependent variables (DV). This analysis is to identify if the correlation exists between parental influence, food price, and academic stress influencing eating behaviours among students during this pandemic. A high correlation suggests a strong relationship between the variables, whereas a low

correlation indicates a weak relationship. The strength of the correlation between independent variables and the dependent variable is measured in Table 3.3.

Table 3.3: Rules of Thumb about Correlation Coefficient Size

Coefficient Range (r)	Strength of Association
± 0.91 to ± 1.00	Very Strong
± 0.71 to ± 0.90	High
± 0.41 to ± 0.70	Moderate
± 0.21 to ± 0.40	Weak
± 0.01 to ± 0.20	Very Weak
0	No correlation

The positive correlation coefficient has a value of 0 to 1.00. Table 3.3 illustrates that if the coefficient value is between ± 0.91 to ± 1.00 , the strength of the relation between the variables is very strong. When the scale is between ± 0.71 to ± 0.90 , it indicates a high correlation whereas numbers between ± 0.41 to ± 0.70 indicate a moderate correlation. When the dimensions are between ± 0.21 to ± 0.40 in terms of the strength of the link, it indicates that there is a weakly correlation. If the coefficient value is between ± 0.01 to ± 0.20 , the connection between the variable very weak correlation. The number 0 implies that there is no correlation.

3.8.4 RELIABILITY ANALYSIS

Reliability analysis is a software testing procedure that determines if the programme can conduct a failure-free operation in a certain environment for a certain

period. This reliability test's main objective is to make sure that data and research are reliable since they impact the analysis' aim. Cronbach's Alpha introduced a common measure in the reliability test. The reliability test is separated into three phases: the pilot test, the evaluation of the pilot test findings (alpha value), and the examination of inter-correlated items, all of which must be considered consistent in the final analysis. The rules of thumb for Cronbach's Alpha are shown in Table 3.4.

Table 3.4: Rules of Thumb about Cronbach's Alpha

Cronbach's Alpha Coefficient	The Strength of Association
< 0.6	Poor
0.6 to < 0.7	Moderate
0.7 to < 0.8	Good
0.8 to < 0.9	Very Good
0.9	Excellent

When the coefficients are less than 0.6, the strength of the connection is poor. When the readings are between 0.6 and less than 0.7, the degree of correlation is moderate. If the readings are between 0.7 and 0.8, it indicates a strong connection. A value between 0.8 and less than 0.9 may suggest an outstanding strength of association, however, a value in the 0.9 range of Cronbach's Alpha coefficient suggests a great level of association.

3.9 SUMMARY

The methodology used in this study consists of a few data, such as the researchers' method of collecting numerical data in groups. This study uses the quantitative approach by applying a questionnaire as the instrument. These items will be adapted and adopted from previous studies and have highly relevant to the variables being studied. Respondents use the Likert Scale to answer this closed-ended question. In addition, university students in Malaysia who are aged 18 and above are the target respondents. The convenience sampling method is used as the sampling method. Lastly, the researcher obtains data for this study's data analysis and does frequency analysis, descriptive analysis, correlation analysis, and reliability analysis.

CHAPTER 4

RESULTS AND DISCUSSIONS

4.1 INTRODUCTION

This chapter discusses the research's findings, which are based on an analysis of the data collected from respondents' responses to the conducted questionnaire. This research was analyzed using SPSS version 26.0. The results of the research presented in this chapter are to explain the answers to the research question which are factors that influence eating behaviours among university students during the COVID-19 pandemic in Malaysia. At the beginning of the chapter will present a descriptive analysis. After analyzing the descriptive analysis, the reliability test and inferential analysis will be interpreted. Next, the results of the hypothesis will be discussed. This chapter will end with a summary.

4.2 THE RESULTS OF DESCRIPTIVE ANALYSIS

The descriptive analysis for this research involved frequency, percentage, mean, standard deviation, and mean interpretation. The analysis of the study findings was conducted according to the research questions that have been detailed in the previous section. The descriptive analysis results were interpreted in the following way:

4.2.1 RESPONDENTS' DEMOGRAPHIC

Descriptive data for the demographic profiles of the respondents such as gender, age, level of education, marital status, and race roughly describe the profiles of the study samples studied.

4.2.1.1 NUMBER OF RESPONDENTS BASED ON GENDER

Table 4.1: Frequency Analysis of Respondent's Gender

Gender	Frequency	Percentage
Male	129	33.6%
Female	255	66.4%

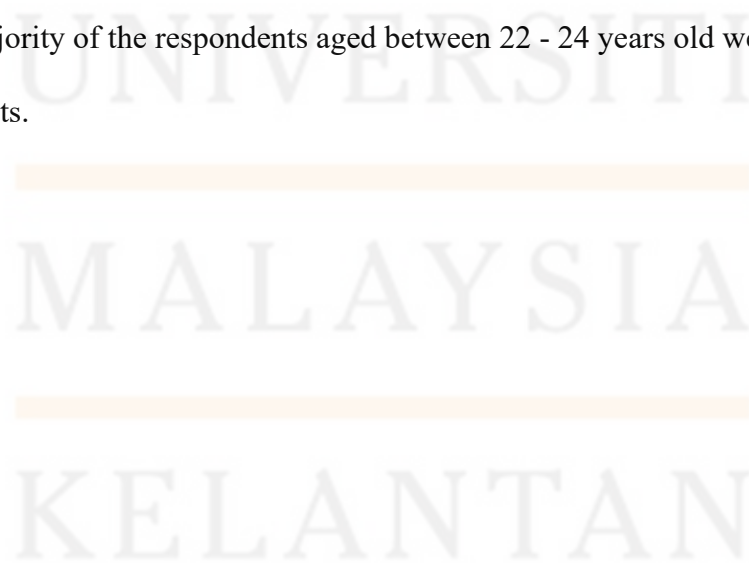
Table 4.1 shows the demographics of the respondents collected by frequency and percentage based on items 1 to 5 in the questionnaire. This research included 384 Malaysian university students who were divided into two groups based on their gender. There are 129 (33.6%) males and 255 (66.4%) females among the 384 responders. It demonstrates that the majority who answered the given questionnaire were female.

4.2.1.2 NUMBER OF RESPONDENTS BASED ON AGE

Table 4.2: Frequency Analysis of Respondent’s Age

Age	Frequency	Percentage
19 – 21 years old	116	30.2%
22 – 24 years old	185	48.2%
25 – 27 years old	34	8.9%
28 – 30 years old	28	7.3%
31 years old and above	21	5.5%

Table 4.2 showed the total number of respondents based on age. The age of the respondents ranged from 19 and above and are divided according to five age groups. The first range is from those aged between 19 - 21 years consisting of 116 respondents (30.2%), 22 - 24 years consisting of 185 respondents (48.2%), and 25 - 27 years consisting of 34 respondents (8.9%). Respondents are aged 28 - 30 years and 31 years and above consisting of 28 (7.3%) and 21 respondents (5.5%) respectively. The result demonstrates that the majority of the respondents aged between 22 - 24 years old were currently third-year students.



4.2.1.3 NUMBER OF RESPONDENTS BASED ON EDUCATIONAL LEVEL

Table 4.3: Frequency Analysis of Respondent’s Educational Level

Educational Level	Frequency	Percentage
Diploma	97	25.3%
Bachelor	225	58.6%
Master	33	8.6%
PhD	29	7.6%

Table 4.3 showed the number of respondents based on educational level. The level of education of the respondents has been divided into four categories according to qualifications, namely Diploma, Bachelor, Master and PhD. The highest number collected in this section is 225 respondents (58.6%) which is the Bachelor’s students. Followed by the Diploma which is 97 respondents with 25.3%, the Master category which is 33 respondents with 8.6% and 29 respondents (7.6%) are students from PhD. The result clearly stated that most of the respondents were Bachelor’s students.

4.2.1.4 NUMBER OF RESPONDENTS BASED ON MARITAL STATUS

Table 4.4: Frequency Analysis of Respondent’s Marital Status

Marital Status	Frequency	Percentage
Single	351	91.4%
Married	33	8.6%

Table 4.4 showed the total number of respondents based on marital status. Based on the collected data from the total number of 384 respondents, a total of 351 respondents are single (91.4%), and 33 respondents were married (8.6%). Almost all of the respondents were single, according to the results.

4.2.1.5 NUMBER OF RESPONDENTS BASED ON RACE

Table 4.5: Frequency Analysis of Respondent's Race

Race	Frequency	Percentage
Malay	236	61.5%
Chinese	41	10.7%
Indian	57	14.8%
Others	50	13.0%

Table 4.5 showed the total number of respondents based on race. Based on the collected result from the total number of 384 respondents, 236 respondents (61.5%) are Malays compared to Chinese and Indians were 41 (10.7%) and 57 (14.8%) respondents. While the respondents for other races are 50 respondents with 13.0%. The result clearly stated that most of the respondents were Malay, with the highest percentage at 61.5%.

4.2.2 CENTRAL TENDENCIES MEASUREMENT OF VARIABLES

The measurements of variables are used to show the value of mean and standard deviation in independent variables (Parental Influence, Food Price, and Academic Stress) and dependent variable (Eating Behaviours). The results are examined using the SPSS

software and a five-point Likert scale to measure all the questions in section B which is the dependent variable, and sections C, D, and E which are represented as independent variables.

4.2.2.1 EATING BEHAVIOUR

Table 4.6: Central Tendencies Result of Eating Behaviour

No.	Statements	Mean	Standard Deviation
EB1	Do you always skip meals during online learning?	4.44	0.815
EB2	Do you prefer to order fast food during MCO?	3.93	1.067
EB3	Do you enjoy eating snacks during COVID-19?	3.99	1.063
EB4	Do you consume more fruits and vegetables?	3.67	1.109
EB5	Do you eat homemade food during COVID-19?	4.35	0.863

Table 4.6 showed the central tendencies measurement of Eating Behaviour (EB) with the five statements in the questionnaire. The table showed the mean, standard deviation and rank of Eating Behaviour.

EB1 had the greatest mean value of 4.44 and standard deviation of 0.815 for the statement "Do you always skip meals during online learning?" The second highest mean value of the statement is "Do you eat homemade food during COVID-19?" with 4.35, the third-highest mean value of the statement is "Do you enjoy eating snacks during COVID-19?" with 3.99, the fourth highest mean value of the statement is "Do you prefer to order fast food during MCO?" with 3.93 and the standard deviation is 1.067. While the lowest

mean value of 3.67 and standard deviation of 1.109 is found in EB4 with the statement "Do you consume more fruits and vegetables?".

Therefore, most of the respondents agreed that “Do you always skip meals during online learning?” which refers to skipping meals as an eating behaviour performed by university students in Malaysia during COVID-19.

4.2.2.2 PARENTAL INFLUENCE

Table 4.7: Central Tendencies Result of Parental Influence

No.	Statements	Mean	Standard Deviation
PI1	I would eat whatever food my parents prepared during the MCO.	4.47	0.861
PI2	My parents eat more fruits in their daily menu.	3.18	1.211
PI3	My parents prepared healthy meals during the MCO.	3.96	0.923
PI4	My parents cook at home to ensure cleanliness.	4.51	0.723
PI5	My parents encouraged me to take vegetables to prevent COVID-19.	3.70	1.094

Table 4.7 showed the central tendencies measurement of Parental Influence (PI) with the five statements in the questionnaire. The first independent variable, Parental Influence, was represented in the table by its mean, and standard deviation.

The statement "My parents cook at home to ensure cleanliness" had the greatest mean of 4.51 and the lowest standard deviation of 0.723 in PI4. The second highest mean value of the statement is “I would eat whatever food my parents prepared during the

MCO.” with 4.47, the third-highest mean value of the statement is “My parents prepared healthy meals during the MCO.” with 3.96, the fourth highest mean value of the statement is “My parents encouraged me to take vegetables to prevent COVID-19.” with 3.70. While the lowest mean value of 3.18 and standard deviation of 1.211 is found in PI2 with the statement "My parents eat more fruits in their daily menu.".

Therefore, the majority of responders agreed that “My parents cook at home to ensure cleanliness.” is the most influential statement on the parental influence that affects university students in Malaysia on their eating behaviour during COVID-19.

4.2.2.3 FOOD PRICE

Table 4.8: Central Tendencies Result of Food Price

No.	Statements	Mean	Standard Deviation
FP1	The main reason for choosing food is its low price.	4.41	0.868
FP2	I choose cheap food even though they are not nutritious.	3.83	1.143
FP3	I cook at home during the MCO because it saves money.	4.28	0.868
FP4	I do not consume healthy food since it is expensive.	3.54	1.180
FP5	I eat according to my needs or affordability.	4.35	0.836

Table 4.8 showed the central tendencies measurement of Food Price (FP) with the five statements in the questionnaire. The second independent variable, Food Price, was represented in the table by its mean, and standard deviation.

FP1 with the statement “The main reason for choosing food is it’s a low price.” has the highest mean value of 4.41 and standard deviation value of 0.868. The second highest mean value of the statement is “I eat according to my needs or affordability.” with 4.35, the third-highest mean value of the statement is “I cook at home during the MCO because it saves money.” with 4.28, the fourth highest mean value of the statement is “I choose cheap food even though they are not nutritious.” with 3.83. While PI2 with the statement “I do not consume healthy food since it is expensive.” has the lowest mean value of 3.54 and standard deviation value of 1.180.

Therefore, the most of responders agreed that “The main reason for choosing food is it’s a low price.” This is the most influential statement on the food price that affects university students in Malaysia on their eating behaviour during COVID-19.

4.2.2.4 ACADEMIC STRESS

Table 4.9: Central Tendencies Result of Academic Stress

No.	Statements	Mean	Standard Deviation
AS1	When I am stressed, my eating behaviour is disrupted.	4.23	0.910
AS2	I have the urge to eat when upset.	3.93	0.964
AS3	I think snacking is responsible for the sensation of pleasure.	3.45	1.212
AS4	I will eat too much to relieve my stress.	3.73	1.043
AS5	Stress caused me to skip meals for focusing on my learning.	4.22	0.982

Table 4.9 showed the central tendencies measurement of Academic Stress (AS) with the five statements in the questionnaire. The third independent variable, Academic Stress, was represented in the table by its mean, and standard deviation.

AS1 with the statement “When I am stressed, my eating behaviour is disrupted.” has the highest mean value of 4.23 and standard deviation value of 0.910. The statement “Stress caused me to skip meals for focusing on my learning.” ranked 2 with a 4.22 mean value and “I have the urge to eat when upset.” ranked 3 with a 3.93 mean value. The statement “I will eat too much to relieve my stress.” ranked 4 with a 3.73 mean value. Meanwhile, AS3 with the statement “I think snacking is responsible for the sensation of pleasure.” has the lowest mean value of 3.45 and standard deviation value of 1.212.

Therefore, the most of responders agreed that “When I am stressed, my eating behaviour is disrupted.” is the most influential statement in academic stress that affects university students in Malaysia on their eating behaviour during COVID-19.

4.3 THE RESULTS OF THE RELIABILITY TEST

This test is tested using Cronbach Alpha statistical test. If the Cronbach Alpha value is more than 0.60, the variable is considered to be reliable. If Cronbach Alpha is less than 0.60, the variable is considered to be unreliable (Ghozali, 2013). The strength of association in this research is based on table 4.10 the rule of thumb about Cronbach’s Alpha Coefficient.

Table 4.10: Rules of Thumb about Cronbach's Alpha

Cronbach's Alpha Coefficient	The Strength of Association
< 0.6	Poor
0.6 to < 0.7	Moderate
0.7 to < 0.8	Good
0.8 to < 0.9	Very Good
0.9	Excellent

4.3.1 EATING BEHAVIOUR

Table 4.11: Reliability Test on Eating Behaviour

Variable	Items	Cronbach Alpha	Explanation
Eating Behaviour	5	0.757	Good

In this study, there are five questions were used to measure the Eating Behaviour variable. Table 4.11 shows that Cronbach's alpha coefficient of Eating Behaviour is 0.757 indicating a good strength of association. As a result, the coefficient computed for the Eating Behaviour variable's questions is accurate.

4.3.2 PARENTAL INFLUENCE

Table 4.12: Reliability Test on Parental Influence

Variable	Items	Cronbach Alpha	Explanation
Parental Influence	5	0.813	Very good

In this study, there are five questions were used to measure the Parental Influence variable that influences eating behaviours during COVID-19. Table 4.12 shows that Cronbach's alpha coefficient of Parental Influence is 0.813 indicating a very good strength of association. As a result, the coefficient computed for the Parental Influence variable's questions is accurate.

4.3.3 FOOD PRICE

Table 4.13: Reliability Test on Food Price

Variable	Items	Cronbach Alpha	Explanation
Food Price	5	0.799	Good

In this study, there are five questions were used to measure the Food Price variable that influences eating behaviours during COVID-19. Table 4.13 shows that Cronbach's alpha coefficient of Food Price is 0.799 indicating a good strength of association. As a result, the coefficient computed for the Food Price variable's questions is accurate.

4.3.4 ACADEMIC STRESS

Table 4.14: Reliability Test on Academic Stress

Variable	Items	Cronbach Alpha	Explanation
Academic Stress	5	0.704	Good

In this study, there are five questions were used to measure the Academic Stress variable that influences eating behaviours during COVID-19. Table 4.14 shows that Cronbach’s alpha coefficient of Academic Stress is 0.704 indicating a good strength of association. As a result, the coefficient computed for the Academic Stress variable's questions is accurate.

4.4 THE RESULTS OF INFERENTIAL ANALYSIS

The relationship between the dependent variable which is Eating Behaviour and the independent variables which are Parental Influence, Food Price and Academic Stress can be obtained through Pearson Correlation. Pearson Correlation Analysis is used to see whether the correlation coefficient is significant and hypothesis should be accepted or rejected. Table 4.15 shows the rule of thumb regarding correlation coefficient size.

Table 4.15: Rules of Thumb about Correlation Coefficient Size

Coefficient Range (r)	Strength of Association
±0.91 to ±1.00	Very Strong
±0.71 to ±0.90	High
±0.41 to ±0.70	Moderate
±0.21 to ±0.40	Weak
±0.01 to ±0.20	Very Weak
0	No correlation

4.4.1 PARENTAL INFLUENCE

Table 4.16: Pearson Correlation of Parental Influence and Eating Behaviour

		Parental Influence	Eating Behaviour
Parental Influence	Pearson Correlation	1	0.442**
	Sig. (2-tailed)		0.000

** Correlation is significant at the 0.01 level (2-tailed).

H1: There is a significant relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

Based on table 4.16, it is proven that there is a moderate positive relationship between eating behaviour variables with parental influence factors since the correlation coefficient value of $r = 0.442$. This implies that the relationship between parental influence is positive and weakly related to the influence on eating behaviour among university students during the COVID-19 pandemic in Malaysia. Parental influence has a p-value of 0.000, which is less than the highly significant value of 0.01. Therefore, there is a significant relationship between parental influence and eating behaviours among university students during the COVID-19 in Malaysia.

4.4.2 FOOD PRICE

Table 4.17: Pearson Correlation of Food Price and Eating Behaviour

		Food Price	Eating Behaviour
Food Price	Pearson Correlation	1	0.747**
	Sig. (2-tailed)		0.000

** Correlation is significant at the 0.01 level (2-tailed).

H2: There is a significant relationship between food price and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

Based on table 4.17, it is clear that there is a strong positive correlation between eating behaviour with food price factors. This is indicated by a high Pearson correlation value of $r = 0.747$. This shows that food price is the best factor in influencing the eating behaviour of university students during COVID-19 in Malaysia. Food Price has a p-value of 0.000, which is less than the highly significant value of 0.01. Therefore, there is a significant relationship between food prices and eating behaviours among university students during the COVID-19 in Malaysia.

4.4.3 ACADEMIC STRESS

Table 4.18: Pearson Correlation of Academic Stress and Eating Behaviour

		Academic Stress	Eating Behaviour
Academic Stress	Pearson Correlation	1	0.608**
	Sig. (2-tailed)		0.000

** Correlation is significant at the 0.01 level (2-tailed).

H2: There is a significant relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

Based on table 4.18, it is clear that there is a strong positive correlation between eating behaviour with academic factors. Numerically, it can be seen with the value of the Pearson correlation coefficient, which is $r = 0.608$. This implies that the relationship between academic stress is positive and strongly related to the influence on eating behaviour among university students during the COVID-19 pandemic in Malaysia. Academic Stress has a p-value of 0.000, which is less than the highly significant value of 0.01. Therefore, there is a significant relationship between academic stress and eating behaviours among university students during the COVID-19 in Malaysia.



4.5 DISCUSSION BASED ON RESEARCH OBJECTIVES

4.5.1 PARENTAL INFLUENCE

Table 4.19: Relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

Research Objective	Results	Interpretation
To identify the relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia.	$r = 0.442$ $p\text{-value} = 0.000$	Accepted

Hypothesis 1: Parental influence

H_{0a} – There is no significant relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

H_{1a} – There is a significant relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

Table 4.19 showed the Pearson Correlation coefficient between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia is 0.442. The p-value is 0.000, which is less than the significant level of 0.01. The relationship between parental influence and eating behaviours among university students during the COVID-19 in Malaysia is a moderate positive coefficient. Therefore, this study accepts the H_{1a} for Hypothesis 1.

4.5.2 FOOD PRICE

Table 4.20: Relationship between food price and eating behaviours among university students during the COVID-19 in Malaysia.

Research Objective	Results	Interpretation
To examine the relationship between food price and eating behaviours among university students during the COVID-19 pandemic in Malaysia.	$r = 0.747$ $p\text{-value} = 0.000$	Accepted

Hypothesis 2: Food price

H_{0a} – There is no significant relationship between the food price and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

H_{1a} – There is a significant relationship between food prices and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

Table 4.20 showed the Pearson Correlation coefficient between food price and eating behaviours among university students during the COVID-19 pandemic in Malaysia is 0.747. The p-value is 0.000, which is less than the significant level of 0.01. The relationship between food price and eating behaviours among university students during the COVID-19 in Malaysia is a high positive coefficient. Therefore, this study accepts H_{1a} for Hypothesis 2.

4.5.3 ACADEMIC STRESS

Table 4.21: Relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

Research Objective	Results	Interpretation
To determine the relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia.	$r = 0.608$ $p\text{-value} = 0.000$	Accepted

Hypothesis 3: Academic Stress

H_{0a} – There is no significant relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

H_{1a} – There is a significant relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

Table 4.21 showed the Pearson Correlation coefficient between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia is 0.608. The p-value is 0.000, which is less than the significant level of 0.01. The relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia is a moderate positive coefficient. Therefore, this study accepts the H_{1a} for Hypothesis 3.

4.6 SUMMARY

In conclusion, the researcher explains in more detail whether all the results of the research that have been implemented can answer the objectives of the research in this chapter. The researcher has seen the results of the three independent variables which are Parental Influence, Food Price and Academic Stress have a significant relationship with eating behaviour among university students during COVID-19 in Malaysia. In general, Food Price factors had a high relationship, while Parental Influence factors and Academic Stress had a moderate relationship with eating behaviour among students during COVID-19. The result has been proven by correlation coefficients – Parental Influence (0.442), Food Price (0.747), Academic Stress (0.608) and p-value equal to 0.000 which is $p < 0.01$. The results of the data indicate that all the independent variables (Parental Influence, Food Price, Academic Stress) significantly influence the eating behaviour among university students during the COVID-19 pandemic in Malaysia.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 INTRODUCTION

The findings of the study that were discussed in the previous chapter will be addressed and summarized in this chapter. This chapter will discuss the study's findings to highlight the determination of the relationship between parental influence, food prices, academic stress, and eating behaviours. This discussion covers relevant findings, limitations, and recommendations for further research.

5.2 RECAPITULATION OF THE FINDINGS

5.2.1 RELATIONSHIP BETWEEN PARENTAL INFLUENCE AND EATING BEHAVIOURS AMONG UNIVERSITY STUDENTS DURING THE COVID-19 PANDEMIC IN MALAYSIA.

Table 5.2: Relationship between the Parental Influence and Eating Behaviour

Research Objective 1	To identify the relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia.
Research Question 1	What is the relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia?

Hypothesis 1	There is a significant relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia.
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Table 5.2 shows the research objective and hypothesis (H_1) for parental influence on eating behaviours among university students during the COVID-19 pandemic in Malaysia. H_1 is accepted because according to table 4.19 the research found that the p-value is 0.000, which is less than the 0.01 alpha value. As a result, this shows a significant relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

These findings have been supported by Philippe et al. (2021). These researchers found that there is a significant relationship between parental influence and eating behaviour during COVID-19. One of the most important factors influencing university students' eating behaviour during COVID-19 is parental influence. Parental influence can cause university students to decide to follow their parents' eating behaviours. For example, parents will recommend their children to eat at home or cook rather than eat at a restaurant, as well as increase their intake of vegetables and fruits to avoid being infected with COVID-19. People who prepare home-cooked foods are more likely to make better choices while eating because they have greater control over the ingredients and portion amounts while cooking (Mills et al., 2017).

Thus, parental influence has been shown to influence the eating behaviour of university students during the COVID-19 pandemic in Malaysia. The objective to research the parental influence on the eating behaviour of university students in Malaysia

has been achieved. The research question "What is the relationship between parental influence and eating behaviours among university students during the COVID-19 pandemic in Malaysia.?" has also been supported in this study.

5.2.2 RELATIONSHIP BETWEEN FOOD PRICE AND EATING BEHAVIOURS AMONG UNIVERSITY STUDENTS DURING THE COVID-19 PANDEMIC IN MALAYSIA.

Table 5.3: Relationship between the Food Price and Eating Behaviour

Research Objective 2	To examine the relationship between food price and eating behaviours among university students during the COVID-19 pandemic in Malaysia.
Research Question 2	What is the relationship between food price and eating behaviours among university students during the COVID-19 pandemic in Malaysia?
Hypothesis 2	There is a significant relationship between food price and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

Table 5.3 shows the research objective and hypothesis (H₂) for food price on eating behaviours among university students during the COVID-19 pandemic in Malaysia. H₂ is accepted because according to table 4.20 the research found that the p-value is 0.000, which is less than the 0.01 alpha value. As a result, this shows a significant relationship between food price and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

Based on the study by Abd Rahman (2020) indicated that there is a significant relationship between food price and eating behaviour during COVID-19. Among the determinants of eating behaviour, food price is the most obvious factor to consider. Recently, the COVID-19 pandemic has changed people's perceptions to be more frugal in choosing their food. This is because their financial instability during this pandemic has caused them to be more frugal to cook at home than buying food outside. According to Abd Rahman (2020), cooking at home when COVID-19 saves them money compared to buying food by a delivery which has to pay the food delivery charge as well.

This finding can be supported by A. Radwan et al. (2021), who generally found that there is a significant relationship between food price and eating behaviour during COVID-19. University students may have a substantial impact on their life expectancy following the drop in family economic conditions during COVID-19, which was the worst before the pandemic (A. Radwan et al., 2021). According to Mattioli et al. (2020), the price elasticity of demand for specific food products demonstrates that healthy foods such as vegetables, whole grains, high-quality meats, fruits, and nutritious beverages are the most price-sensitive. University students were unable to make any conclusions on the influence of price increases on the shift from healthy to unhealthy meals.

Thus, food price has been shown to influence the eating behaviour of university students during the COVID-19 pandemic in Malaysia. The objective to study the food price on the eating behaviour of university students in Malaysia has been achieved. The research question "What is the relationship between food price and eating behaviours among university students during the COVID-19 pandemic in Malaysia.?" has also been supported in this study.

5.2.3 RELATIONSHIP BETWEEN ACADEMIC STRESS AND EATING BEHAVIOURS AMONG UNIVERSITY STUDENTS DURING THE COVID-19 PANDEMIC IN MALAYSIA.

Table 5.3: Relationship between the Academic Stress and Eating Behaviour

Research Objective 3	To determine the relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia.
Research Question 3	What is the relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia?
Hypothesis 3	There is a significant relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

Table 5.4 shows the research objective and hypothesis (H₃) for academic stress on eating behaviours among university students during the COVID-19 pandemic in Malaysia. H₃ is accepted because according to table 4.21 the research found that the p-value is 0.000, which is less than the 0.01 alpha value. As a result, this shows a significant relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia.

These findings can be supported by Choi (2020), this researcher's findings have shown a significant relationship between academic stress and eating behaviour during COVID-19. University students who have stress will cause their eating behaviours to be disrupted. According to Papier et al. (2015), when university students are stressed, they would take pleasure in highly tasty food or snacks. For example, as compared to healthy

foods, stress can increase the intake of high-calorie snacks, sugary foods, sweets, and carbohydrate-rich foods (Zellner et al., 2007; Mikolajczyk et al., 2009; Choi, 2020). University students use food as a maladaptive coping mechanism to manage their stress (Choi, 2020) because food can stimulate the release of serotonin in the brain (Caso et al., 2020). Due to academic stress, online learning makes it harder for university students to maintain a low sense of control, which can lead to overeating.

According to the findings of Badrasawi et al. (2021), there is a significant relationship between academic stress and eating behaviour during COVID-19. Academic stress has a major impact on eating behaviour among students. This factor can increase inconsistent eating, which could explain stress-related undereating. When university students are so preoccupied with their stress that they miss or ignore hunger indicators, they lose track of their hunger and lack the urge to eat properly. Students who experience stress prefer to skip meals because they are more focused on completing assignments and preparing for quizzes or exams than eating consistently. They assume that the way to get an excellent grade is very important compared to the amount and quality of food consumed (Schmader, 2020).

Thus, academic stress has been shown to influence the eating behaviour of university students during the COVID-19 pandemic in Malaysia. The objective to study the academic stress on the eating behaviour of university students in Malaysia has been achieved. The research question "What is the relationship between academic stress and eating behaviours among university students during the COVID-19 pandemic in Malaysia.?" has also been supported in this study.

5.3 LIMITATIONS

This research assists in understanding the factors influencing eating behaviour among university students in Malaysia during the COVID-19 pandemic. Several limitations have been identified in this research. Firstly, the information gathered was insufficient and ineffective to provide an accurate representation of eating behaviour during COVID-19. Only 384 students responded to the survey, which was a small sample size compared to the population demographics. This could not possibly capture more data than other university students in Malaysia.

The time constraints and infection of the COVID-19 outbreak, for which data were collected through online questionnaires were also limitations of this research. It can lead to poor data collection and an inability to accurately mark eating behaviours. Furthermore, limitations in the use of questionnaires can lead to biased and confusing answers, due to gaps or misunderstandings between respondents' understanding and the concepts measured by the questions. Furthermore, the respondents' honesty in answering the survey questions was assumed for granted, which might be a weakness in this study.

5.4 RECOMMENDATIONS

This section will discuss some suggestions for further research that can be used as a guide for other researchers. This study focuses on the factors that influence eating behaviour among university students during COVID-19 in Malaysia. Thus, for the proposal of further study, further study can be done on eating behaviour among post-COVID-19 university students.

Second, diversify the target of this study to the community and society. This is because the focus of this study is only on university students. By broadening the target of the study, the researcher will get a variety of information from the respondents. Therefore, future researchers will get more information in identifying the factors that influence a person in eating behaviour. Researchers can also study societal patterns in eating behaviour.

Moreover, there's the data collection methods part. Future studies could use qualitative approaches to explore other aspects that can influence an individual's eating behaviour, and the study should be more comprehensive to get a more open answer. Furthermore, communication becomes easier, and it is beneficial to swiftly produce news and information. To solve the issue of generalisation of findings, future research should use various sampling strategies, either under probability sampling or non-probability sampling.

5.5 SUMMARY

In a nutshell, this research was conducted to better understand the study on the factors influencing eating behaviours among university students during the COVID-19 pandemic in Malaysia by explaining the elements of Parental Influence, Food Prices and Academic Stress. This research project has fulfilled the objective of identifying the relationship between Parental Influence, Food Prices, and Academic Stress on Eating Behaviour. After testing the reliability and Pearson Correlational analysis, the finding showed that all three independent variables had a significant positive relationship with eating behaviour. This research has also shown some of the limitations that have been identified, as well as some recommendations.

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APPENDIX A: QUESTIONNAIRE

QUESTIONNAIRE/ BORANG KAJI SELIDIK



UNIVERSITI
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FACTORS INFLUENCING EATING BEHAVIOURS AMONG UNIVERSITY STUDENTS DURING THE COVID-19 PANDEMIC IN MALAYSIA

FAKTOR YANG MEMPENGARUHI TINGKAH LAKU MAKAN DALAM KALANGAN PELAJAR UNIVERSITI KETIKA PANDEMIK COVID-19 DI MALAYSIA.

Dear respondents,

This questionnaire aims to collect data on the factor influencing eating behaviours among university students during the COVID-19 pandemic in Malaysia. The questionnaire contained four sections covering demographic profiles, eating behaviours, parental influence, food price, and academic stress. Your response will remain private and will only be used for scholarly purposes.

Responden yang dihormati,

Soal selidik ini bertujuan untuk mengumpul data tentang factor yang mempengaruhi tingkah laku pemakanan dalam kalangan pelajar universiti semasa pandemik COVID-19 di Malaysia. Soal selidik ini mengandungi empat seksyen yang merangkumi tentang profil demografi, tingkah laku pemakanan, pengaruh keluarga, harga makanan, dan tekanan akademik. Respons anda akan tetap dirahsiakan dan hanya akan digunakan untuk tujuan ilmiah.

Section A: Demographic profile. / Profil Demografi.

Please select only one answer for each of the following questions. / *Sila pilih satu jawapan sahaja untuk setiap soalan berikut.*

1. Gender / Jantina:

Male / <i>Lelaki</i>	
Female / <i>Wanita</i>	

2. Age / Umur:

19-21 years old / <i>19-21 tahun</i>	
22 -24 years old/ <i>22-24 Tahun</i>	
25-27 years old / <i>25-27 Tahun</i>	
28-30 years old/ <i>28-30 Tahun</i>	
31 years old and above/ <i>31 tahun dan ke atas</i>	

3. Educational Level/ Tahap Pendidikan:

Diploma / <i>Diploma</i>	
Bachelor / <i>Ijazah Sarjana Muda</i>	
Master / <i>Ijazah Sarjana</i>	
PhD / <i>Doktor Falsafah</i>	

4. Marital Status / Status Perkahwinan:

Single / <i>Bujang</i>	
Married / <i>Berkahwin</i>	
Others / <i>Lain-lain</i>	

5. Race/ Bangsa:

Malay/ <i>Melayu</i>	
Chinese / <i>Cina</i>	
Indian / <i>India</i>	
Others / <i>Lain-lain</i>	

Instructions: Choose a scale of 1-5 for Section B, C, Section D and Section E based on your feedback on parental influence, food price, and academic stress in factors influencing eating behaviours among university students during the COVID-19 in Malaysia.

Arahan: Pilih skala 1-5 untuk Bahagian B, C, Bahagian D dan Bahagian E berdasarkan maklum balas anda tentang pengaruh ibu bapa, harga makanan, dan tekanan akademik dalam faktor mempengaruhi tingkah laku pemakanan yang tidak sihat dalam kalangan pelajar universiti ketika COVID-19 di Malaysia.

Scale	1	2	3	4	5
	Strongly Disagree/ <i>Sangat Tidak Setuju</i>	Disagree/ <i>Tidak Setuju</i>	Neutral	Agree/ <i>Setuju</i>	Strongly Agree/ <i>Sangat Setuju</i>

Section B: Eating Behaviours. / Tingkah Laku Pemakanan

No.	Items	Scale / Skala				
1.	Do you always skip meals during online learning? <i>/ Adakah anda selalu ponteng makan ketika pembelajaran dalam talian?</i>	1	2	3	4	5
2.	Do you prefer to order fast food during MCO? / <i>Adakah anda lebih suka memesan makanan segera ketika PKP?</i>	1	2	3	4	5
3.	Do you enjoy eating snacks during COVID-19? / <i>Adakah anda seronok makan snek semasa COVID-19?</i>	1	2	3	4	5
4.	Do you consume more fruits and vegetables? / <i>Adakah anda lebih banyak mengambil buah-buahan dan sayur-sayuran?</i>	1	2	3	4	5
5.	Do you eat homemade food during COVID-19? / <i>Adakah anda makan makanan buatan sendiri ketika COVID-19?</i>	1	2	3	4	5

Section C: Parental Influence / Pengaruh Ibu bapa

No.	Items	Scale / Skala				
1.	I would eat whatever food my parents prepared during the MCO. / <i>Saya akan makan apa sahaja makanan yang disediakan oleh ibu bapa saya semasa PKP.</i>	1	2	3	4	5
2.	My parents eat more fruits in their daily menu. / <i>Ibu bapa saya makan lebih banyak buah dalam menu harian mereka.</i>	1	2	3	4	5
3.	My parents prepared healthy meals during the MCO. / <i>Ibu bapa saya menyediakan makanan sihat semasa PKP.</i>	1	2	3	4	5
4.	My parents cook at home to ensure cleanliness / <i>Ibu bapa saya memasak di rumah untuk memastikan kebersihan.</i>	1	2	3	4	5
5.	My parents encouraged me to take vegetables to prevent COVID-19. / <i>Ibu bapa saya menggalakkan saya mengambil sayur-sayuran untuk mencegah COVID-19.</i>	1	2	3	4	5

Section D: Food Price / Harga Makanan.

No.	Items	Scale / Skala				
1.	The main reason for choosing food is its a low price. / <i>Sebab utama untuk memilih makanan adalah harga yang rendah.</i>	1	2	3	4	5
2.	I choose cheap food even though they are not nutritious. / <i>Saya memilih makanan yang murah walaupun tidak berkhasiat.</i>	1	2	3	4	5
3.	I cook at home during the MCO because it saves money / <i>Saya memasak di rumah semasa PKP kerana ia menjimatkan wang.</i>	1	2	3	4	5

4.	I do not consume healthy food since it is expensive. <i>/ Saya tidak mengambil makanan yang sihat kerana ia mahal.</i>	1	2	3	4	5
5.	I eat according to my needs or affordability. <i>/ Saya makan mengikut keperluan atau kemampuan saya.</i>	1	2	3	4	5

Section E: Academic Stress / Tekanan Akademik

No.	Items	Scale / Skala				
1.	When I am stressed, my eating behaviours is disrupted. <i>/ Apabila saya tertekan, tingkah laku pemakanan saya terganggu.</i>	1	2	3	4	5
2.	I have the urge to eat when upset. <i>/ Saya mempunyai keinginan untuk makan apabila marah.</i>	1	2	3	4	5
3.	I think snacking is responsible for the sensation of pleasure. <i>/ Saya fikir snek bertanggungjawab untuk sensasi keseronokan.</i>	1	2	3	4	5
4.	I will eat too much to relieve my stress. <i>/ Saya akan makan terlalu banyak untuk menghilangkan tekanan saya.</i>	1	2	3	4	5
5.	Stress caused me to skip meals for focusing on my learning. <i>/ Tekanan menyebabkan saya tidak makan kerana memberi tumpuan kepada pembelajaran saya.</i>	1	2	3	4	5

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