



How to cite this article:

Mah, P. Y., Tan M. Z. & Chong R. P. (2021). The changing intention to practice healthy eating behaviour among late adolescents during covid-19. *Journal of Business Management and Accounting*, 11(2), 61-72. <https://doi.org/10.32890/jbma2021.11.2.4>

## **THE CHANGING INTENTION TO PRACTICE HEALTHY EATING BEHAVIOUR AMONG LATE ADOLESCENTS DURING COVID-19**

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Received: 13/11/2020   Revised: 23/1/2021   Accepted: 7/2/2021   Published: 29/7/2021

### **ABSTRACT**

The Covid-19 pandemic has generated intention among late adolescents to practice healthy eating behaviour. Although it is not new, there is limited research on this topic. To date, the pandemic has changed the behaviour of late adolescents to practice healthy eating behaviour. As such, it has tremendously grabbed the attention of scholars amid the Covid-19 pandemic. In addition, the development process from adolescence to late adolescence stage has become a serious health-related issue worldwide. However, most research are focused on adolescents instead of late adolescents. Late adolescence is a special group of the population who has specific health concerns. To discover more about healthy eating behaviours among late adolescence aged between 18-24 years in Malaysia, this study aims to examine the

determinants that contribute to the eating behaviour in this population. Based on past and current literature reviews, a proposed research framework was developed, along with some untested assumptions which were formulated for the research purpose.

**Keywords:** Healthy eating behaviour, intention, theory of planned behaviour.

## INTRODUCTION

The Coronavirus SARS-CoV-2 (Covid-19) pandemic has significantly impacted human health, causing a sudden change of lifestyle, unprecedented home isolation, physical distancing and wearing of masks as a norm for people. Likewise, the pandemic has disrupted socioeconomic lifestyle. Particularly it has sharpened the intention to practice healthy eating behaviour among late adolescents (WHO, n.d.) as the awareness of the importance of healthy food is on the rise worldwide (Nguyen, Nguyen, Nguyen, Tran, Nguyen, Nguyen, Cao, Nguyen, 2020). Late adolescents or young adults are an interesting and special group of population which always become the focal point worldwide for different reasons. State Adolescent Health Resource Center (SAHRC) categorised late adolescence or young adulthood as those aged between 18-24 years old. For late adolescents, this is the time that involves huge changes for them from many perspectives in their life ranging from home, family, work, school, resources and their roles. Some late adolescents leave their homes to pursue tertiary education in universities or colleges, start their very first job in another state or step into new social circles and meet new friends. Moreover, the changing intention in these modern days revolve ultimately among consumers (Javeed et al., 2017).

A research by Jääskeläinen, Koponen, Lundqvist, Borodulin and Koskinen (2019), emphasized that young adulthood is a crucial period in which numerous lifestyle factors are developed and would affect the health of young adults. Before they turn into young adults, Qiswai, Ishaque, Shah, and Rahim (2010) posited that adolescents and young adults aged between 10 to 24 are a unique group of population with specific health concerns and needs. Before an adolescent turn into a young adult, the dramatic changes in the physical and psychological state of a person will bring more demands from the influences of their

peers, school, and the society (Qiswai et al., 2010). The pandemic, however, has changed their intention to practice healthy eating behaviour during this transition period and thus deeply influence the behaviour of their adulthood.

According to the World Population Review, the population of Malaysia in 2020 is 32.37 million. From this figure, late adolescents accounted for 3.99 million which is 12.31% of the entire population. Late adolescents are one of the most valuable assets of the country as they will become the leaders of Malaysia in future generation. The Global Economy.com (n.d.) indicated that 43.06% of the late adolescents in Malaysia are enrolled in tertiary education. By looking at the important roles played by the late adolescents, Public Health Department (PHD) of Malaysia is concerned about the health of adolescents which was relatively neglected in the past. Through the Malaysian government efforts in promoting a healthy lifestyle, more people are aware of practising healthy eating behaviour and lifestyle which can reduce health-related issues (Lee, Wan Muda, 2019).

In terms of the daily life changes among late adolescents, one of the most important daily activities of those in tertiary education, which is learning, has changed. Those who just started their working life and are leaving home for their career are also affected by the pandemic. The pandemic has led to the Movement Control Order (MCO) announcement in Malaysia on 18 March 2020 due to the rise in the number of cases and universities and schools were ordered to close immediately; companies were forced to operate remotely or work from home orders in various non-essential sectors as a new operation method. The worry level increases as the Covid-19 cases kept increasing daily. Late adolescents who study and work away from home started to travel back to their respective homes as most of their daily activities are affected. This means late adolescents who used to dine in restaurants have resorted to more home cooking and eating. According to Di Renzo, Gualtieri, Pivari, Soldati, Attina, Cinelli, Leggeri, Caparello, Barrea, Scerbo, Esposito & De Lorenzo (2020), during the Covid-19 lockdown, there are more home-cooked recipes, cereals, legumes, white meat, and hot beverages intakes with less consumption of sweets and bakery products, food deliveries and alcohol consumption among the Italians. However, whether late adolescents intended to continue to practice healthy eating lifestyles during the pandemic is doubtful.

Therefore, the intention of late adolescents to practice healthy eating behaviours to minimize health-related issues during Covid-19 is the key to ensure they can contribute to the overall performance of the country even though they are intensely affected in the process. Besides, late adolescent's intention to practice healthy eating behaviour could make them avoid health-related problems as mentioned previously.

### ***Research Questions***

We postulated several research questions to be answered in this study. This study aims to identify whether psychological factors, attitude, subjective norms and perceived behavioural control will result in the intention to practice healthy eating behaviour.

### ***Research Objectives***

This study aims to:

- i) Determine the relationship between psychological factors and the intention to practise healthy eating behaviour.
- ii) Determine the relationship between attitude and the intention to practise healthy eating behaviour.
- iii) Determine the relationship between subjective norms and the intention to practise healthy eating behaviour.
- iv) Determine the relationship between perceived behavioural control and the intention to practise healthy eating behaviour.

## **LITERATURE REVIEW**

The Theory of Planned Behaviour (TPB) was introduced by Ajzen (1991); it refers to an individual's intention to perform certain action (Ajzen, 1985). This theory originated and expanded from the theory of reasoned action (TRA). TPB is used for explaining human behaviour, which is predicted by i) attitude, ii) social norms and iii) perceived behavioural control. This study uses TPB to explain the intention to practise healthy eating. Likewise, TPB denotes individuals' intention to practice healthy eating behaviour pertinently in human behaviour will influence the behaviour of the individual (Mamun, Hayat, & Zainol, 2020). Consumer healthy eating intention is linked with psychological factor, attitude, subjective norms and perceived behavioural control and thus linked to consumer behaviour and action.

Similarly, consumers' intention to practice healthy eating is built through brands and products. TPB influences purchase intention and intention might lead to purchase or non-purchase (Chong, Tan, Mah, & Low, 2020). There has been rising interest among both academics and practitioners to explore healthy eating behaviour. However, there are limited empirical studies that has explored healthy eating behaviour among late adolescents (Mamun et al., 2020; Menozzi, Sogari, & Mora, 2015; Yadav & Pathak, 2015). This study tries to fill the gap by exploring the intention to practice healthy eating behaviour among young adolescents using the theory of human behaviour.

### ***Intention to Practise Healthy Eating Behaviour***

There are several previous studies on eating behaviour (Kolanowski & Trafialek, 2021; Korinth, Schiess & Westenhoefer, 2010; Pannicke, Kaiser, Reichenberger & Blechert, 2021; Scaglioni, Salvioni & Galimberti, 2008; Wardle, Marsland, Sheikh, Quinn, Fedoroff & Ogden, 1992; Webber, Hill, Saxton, Van Jaarsveld & Wardle, 2009). However, there are limited studies on the intention to practice healthy eating behaviour (e.g. Åstrosm & Rise, 2001; Chamroonsawasdi, Chottanapund, Pamungkas, Tunyasitthisundhorn, Sornpaisarn, & Numpaisan, 2020). Therefore, this study focuses on investigating the intention to practise healthy eating behaviour to fill the theoretical gap.

To date, the intention to practice healthy eating behaviour among late adolescents has increasingly become an issue. The Covid-19 pandemic has sparked a high level of intention in practising this behaviour. Due to this reason, it has resulted in late adolescents maintaining a healthy diet with a suitable consumption of food (such as reducing junk food, fast food and convenience food) (Di Renzo et al., 2020). Chong, Appannah, & Sulaiman, (2019) further emphasized that healthy food strengthens e individuals' health if it contains adequate healthy ingredients. Similarly, healthy food increases health benefits such as strengthening the immune system and generating antibodies (Sued & Hussin, 2020). Particularly, knowledge of healthy foods will then turn into intention and results in practising healthy eating behaviour. Rezai, Teng, Shamsudin, Mohamed, & Stanton (2017) on the other hand, emphasized that approximately 40% of food offering are healthy foods. This implies that it is important for individuals, particularly the late adolescents have the intention to practice healthy eating behaviour.

## **Psychological Factors as the Predictors of the Intention to Practise Healthy Eating Behaviour**

Previous studies have focused on healthy eating intention. Similarly, many studies were concerned with how attitude, subjective norms and perceived behavioural control influence consumers' decision to adopt healthy eating intention (Aji and Dharmmesta, 2019; Banerjee and Ho, 2019; Chen, 2007; Tarkiainen and Sundqvist, 2005). Limited studies have investigated the influence of psychological factors on healthy eating intention.

According to a research conducted by Alfoukha, Hamdan-Mansour and Banihani (2019), psychological factors including self-esteem, self-image and body shape satisfaction have an important impact in developing eating behaviour. Specifically, it is an important indicator of eating disorder. In addition, it is believed that psychological factors in eating disturbances among late adolescents will have unpredictable impact on their health conditions (Alfoukha et al., 2019). Thus, the psychological factor is suitable to adopt in explaining healthy eating intention among late adolescents, especially during the Covid-19 pandemic. Therefore, psychological factors will be investigated in this research to determine how it could influence late adolescents' intention towards healthy eating during the Covid-19 pandemic. It is to measure how individuals view and motivate themselves to adopt intention to eat healthily. Previous empirical studies focused on healthy eating intention, meanwhile many studies focused on how attitude, subjective norm and perceived behavioural control influence consumer decision in healthy eating intention (Aji and Dharmmesta, 2019; Banerjee and Ho, 2019; Chen, 2007; Tarkiainen and Sundqvist, 2005). However, there are limited studies focusing on the influence of psychological factors in healthy eating intention. Hence, we provide a proposition on the relationship between psychological factors and the intention to practice healthy eating behaviour.

**Proposition 1:** Psychological factors will have a significant relationship with the intention to practise healthy eating behaviour.

### ***Attitude as the Predictor of the Intention to Practise Healthy Eating Behaviour***

In particular, attitude is defined as the positive or negative evaluation of an individual in performing a given behaviour (Banerjee and Ho, 2019). According to Rana and Paul (2017), consumers will

have a positive attitude towards the products that provide detailed description of nutrition information. Moreover, consumers' attitude towards healthy eating habits arises from their beliefs in its benefits. This is because consumers believe that they will have positive health effects when they practice healthy eating habits (Hossain and Lim, 2016). Therefore, the expectations and beliefs of the outcomes from the behaviour are essential factors to healthy eating intention of late adolescents (Chen, 2007). Hence, we provide a proposition on the relationship between attitude and the intention to practise healthy eating behaviour.

**Proposition 2:** Attitude will have a significant relationship with the intention to practise healthy eating behaviour.

### ***Subjective Norms as the Predictor of the Intention to Practice Healthy Eating Behaviour***

Ajzen (1985) defined subjective norms (SN) as the individual's perceived social pressure to undertake or not to undertake a behaviour. A study on vegetable consumption among young adults by Menozzi et al. (2015) found that there is a positive relationship between SN with an individual's intention. A person who has apprehensions about health and benefits of healthy eating tend to have higher intention to consume vegetables. This research outcome is further supported by Hartman, Wadsworth, Penny and Asseme (2013). Hartman and colleagues (2013) carried out a focus group interview with twenty-nine university students in New Zealand University aged between 18-24 years old. Their study found that social influences such as roommates, parents, partners, sport coaches, and friends are among the influencers who caused an increased in fruits and vegetables consumption. Hence, we make a proposition on the relationship between subjective norms and the intention to practise healthy eating behaviour.

**Proposition 3:** Subjective norms will have a significant relationship with the intention to practise healthy eating behaviour.

### ***Perceived Behavioural Control as the Predictors of the Intention to Practise Healthy Eating Behaviour***

As one of the determinants of TPB, perceived behavioural control (PBC) is linked to the ability and resources owned by an individual which allows him/her to control a particular behaviour and thus, enabling him/her to perceive how easy it is to perform a behaviour.

Ajzen (1985) defined PBC as the degree which individuals believe that they have control over a behaviour. Therefore, it is the perceived ease of doing a behaviour.

The research study by Armitage and Talibudeen (2010) revealed that PBC is the most significant variable that influences individual behavioural change. This research outcome is further supported by the results of a study by Greaves, Leistner, and Stride (2013). Greaves, Zibarras, & Stride (2013) found that PBC contributes significantly to employees' intentions to switch-off their computers in their workplace and use video-conferencing instead of travelling for meeting purpose. Menozzi et al. (2015) in their study on young adults' vegetables consumption, revealed that PBC is the determining factor of an individual's intention. Their study specified that perceived ease or difficulty in carrying out a behaviour impacts the intention to accomplish that behaviour. Hence, we provide a proposition on the relationship between behavioural control and the intention to practise healthy eating behaviour.

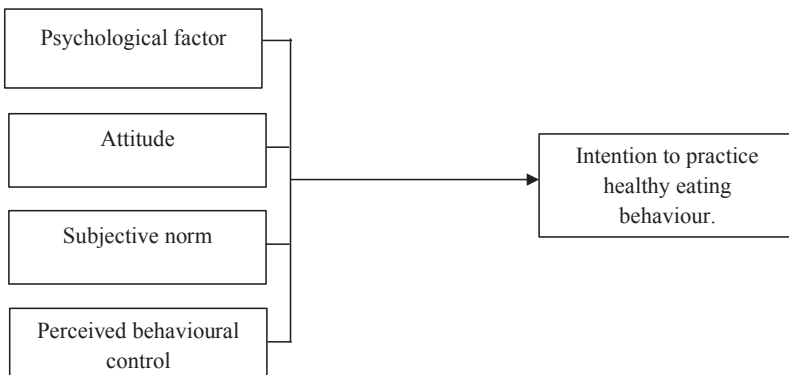
**Proposition 4:** Perceived behavioural control will have significant relationship with the intention to practise healthy eating behaviour.

## RESEARCH FRAMEWORK

Based on the discussion above, a research framework is proposed and labelled as Figure 1.

**Figure 1**

### *Research Framework*





## CONCLUSION

Late adolescents account for 3.99 million or 12.31% of the Malaysian population. This population is one of the most valuable assets of our country as they are the leaders of Malaysia's future generation. The intention of this population group to practise healthy eating behaviour is essential particularly during the Covid-19 pandemic. The vulnerability of the pandemic has mitigated unhealthy eating behaviour, which causes obesity, chronic diseases, stroke and other health problems. As mentioned earlier, late adolescents are a key asset of the country and they contribute significantly to the nation. However, there are limited studies on this group in the population as previous studies are focused on adolescents alone. Hence, this study addresses the need for a study to explore the importance of psychological factors, attitude, subjective norms and perceived behavioural control in the intention to practise healthy eating behaviour among late adolescents.

## ACKNOWLEDGMENT

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

## REFERENCES

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In *Action control* (pp. 11-39). Springer, Berlin, Heidelberg.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211. *De Young*, 509-526.
- Ajzen, I. (2005). *Attitudes, personality, and behavior*. McGraw-Hill Education (UK).
- Aji, H. M., & Dharmmesta, B. S. (2019). Subjective norm vs dogmatism: Christian consumer attitude towards Islamic TV advertising. *Journal of Islamic Marketing*.
- Alfoukha, M. M., Hamdan-Mansour, A. M., & Banihani, M. A. (2019). Social and psychological factors related to risk of eating disorders among high school girls. *The Journal of School Nursing*, 35(3), 169-177.

- Armitage, C. J., & Talibudeen, L.; (2010). Test of a brief theory of planned behavior based intervention to promote adolescent safe intentions. *British Journal of Psychology*, 101(1), 155 – 172.
- Åstros, A. N., & Rise, J. (2001). Young adults' intention to eat healthy food: Extending the theory of planned behaviour. *Psychology and Health*, 16(2), 223-237.
- Banerjee, S., & Ho, S. S. (2019). Applying the theory of planned behavior: Examining how communication, attitudes, social norms, and perceived behavioral control relate to healthy lifestyle intention in Singapore. *International Journal of Healthcare Management*, 1-8.
- Chamroonsawasdi, K., Chottanapund, S., Pamungkas, R. A., Tunyakitthisundhorn, P., Sornpaisarn, B., & Numpaisan, O. (2020). Protection motivation theory to predict intention of healthy eating and sufficient physical activity to prevent Diabetes Mellitus in Thai population: A path analysis. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*.
- Chen, M. F. (2007). Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits. *Food Quality and Preference*, 18(7), 1008-1021.
- Chong, S. C., Tan, F.Y., Mah, P. Y. & Low, C. W. (2020). Consumers' purchase intention towards ergonomic footwear in Malaysia. *International Journal of Financial Research*, 11(2), 88-96.
- Chong, S. P., Appannah, G., & Sulaiman, N. (2019). Predictors of diet quality as measured by Malaysian Healthy Eating Index among aboriginal women (Mah Meri) in Malaysia. *Nutrients*, 11(1), 135.
- Di Renzo, L., Gualtieri, P., Pivari, F., Soldati, L., Attinà, A., Cinelli, G., Leggeri, C., Caparello, G., Barrea, L., Scerbo, F. and Esposito, E., & De Lorenzo, A. (2020). Eating habits and lifestyle changes during COVID-19 lockdown: An Italian survey. *Journal of Translational Medicine*, 18(1), 1-15.
- Greaves, M., Zibarras, L. D., & Stride, C. (2013). Using the theory of planned behavior to explore environmental behavioral intentions in the workplace. *Journal of Environmental Psychology*, 34, 109 – 120.
- Hartman H., Wadsworth D.P., Penny S., van Assema P., Page, R. (2013). Psychosocial determinants of fruit and vegetable consumption among students in a New Zealand University. Results of focus group interviews. *Appetite*, 65,35–42

- Jaaskelainen, T., Koponen, P., Lundqvist, A., Borodulin, K., & Koskinen, S. (2019). Lifestyle of young adults - changes and accumulation. *European Journal of Public Health*, 29(Supplement\_4), ckz185-113.
- Javeed, A., Mokhtar, S. S. M., & Othman, I. L. (2017). The Impact of Food Packaging Cues on Perceived Product Quality: A Conceptual Development. *Journal of Business Management and Accounting*, 7(1), 17-49.
- Khan, A. (2000). Adolescents and reproductive health in Pakistan: A literature review. The Population Council, Pakistan Office.
- Kolanowski, W., & Trafialek, J. (2021). Eating behaviour of homeless people aged 35–40 in Warsaw. *Food Control*, 119, 107477.
- Korinth, A., Schiess, S., & Westenhofer, J. (2010). Eating behaviour and eating disorders in students of nutrition sciences. *Public Health Nutrition*, 13(1), 32-37.
- Lee, Y. Y., & Wan Muda, W. A. M. (2019). Dietary intakes and obesity of Malaysian adults. *Nutrition Research and Practice*, 13(2), 159-168.
- Mamun, A. A., Hayat, N., & Zainol, N. R. B. (2020). Healthy eating determinants: A study among Malaysian young adults. *Foods*, 9(8), 974.
- Menozzi, D., Sogari, G., & Mora, C. (2015). Explaining vegetable consumption among young adults: An application of the theory of planned behaviour. *Nutrients*, 7(9), 7633–7650.
- Nguyen, N., Nguyen, H. V., Nguyen, P. T., Tran, V. T., Nguyen, H. N., Nguyen, T. M. N., Cao, T. K., & Nguyen, T. H. (2020). Some key factors affecting consumers' intentions to purchase functional foods: A case study of functional yogurts in Vietnam. *Foods*, 9(1), 24.
- Pannicke, B., Kaiser, T., Reichenberger, J., & Blechert, J. (2021). Networks of stress, affect and eating behaviour: anticipated stress coping predicts goal-congruent eating in young adults. *International Journal of Behavioral Nutrition and Physical Activity*, 18(1), 1-14.
- Qidwai, W., Ishaque, S., Shah, S., & Rahim, M. (2010). Adolescent lifestyle and behaviour: A survey from a developing country. *PloS One*, 5(9), e12914.
- Rana, J., & Paul, J. (2017). Consumer behavior and purchase intention for organic food: A review and research agenda. *Journal of Retailing and Consumer Services*, 38, 157-165.
- Rezai, G., Teng, P. K., Shamsudin, M. N., Mohamed, Z., & Stanton, J. L. (2017). Effect of perceptual differences on consumer

- purchase intention of natural functional food. *Journal of Agribusiness in Developing and Emerging Economies*.
- Scaglioni, S., Salvioni, M., & Galimberti, C. (2008). Influence of parental attitudes in the development of children eating behaviour. *British Journal of Nutrition*, 99(S1), S22-S25.
- Sued, N. M. N., & Hussin, M. R. A. (2020). Understanding the Relationship between a Small & Medium Enterprise (SME) and its Suppliers: A Case Study of a Food Industry SME Company in Kedah, Malaysia. *Journal of Business Management and Accounting*, 10(1), 65-80.
- Tarkiainen, A., & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British food journal*.
- The Global Economy.Com. (n.d.). Malaysia: Tertiary school enrollment. Retrieved from [https://www.theglobaleconomy.com/Malaysia/Tertiary\\_school\\_enrollment](https://www.theglobaleconomy.com/Malaysia/Tertiary_school_enrollment).
- Wardle, J., Marsland, L., Sheikh, Y., Quinn, M., Fedoroff, I., & Ogden, J. (1992). Eating style and eating behaviour in adolescents. *Appetite*, 18(3), 167-183.
- Webber, L., Hill, C., Saxton, J., Van Jaarsveld, C. H. M., & Wardle, J. (2009). Eating behaviour and weight in children. *International Journal of Obesity*, 33(1), 21-28.
- World Health Organizations (WHO). (n.d.). Covid-19 in Malaysia. Retrieved from <https://www.who.int/malaysia/emergencies/covid-19-in-malaysia>
- Yadav, R., & Pathak, G. S. (2016). Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behavior. *Journal of Cleaner Production*, 135, 732-739.