

THE RELATIONSHIP OF UNDERGRADUATE STUDENTS' LIFESTYLE AND THE IMPACT TO STUDENTS' HEALTH

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Abstract

As the academic standards are becoming more competitive, students in universities have a more challenging lifestyle due to hectic academic schedules, rules and regulations and extracurricular activities. Many students develop a series of unhealthy behaviors, such as insufficient nutrition, lack of rests and physical activities. Students with an unhealthy lifestyle commonly have less nutrients and low physical activity are identified to be more depressed and weaker in mind and physique. Past studies show that unhealthy students are more likely to deal with difficulty in learning and thus impacted the achievement, attendance, and academic performance. In the long-run, unhealthy lifestyle inherited from university will affect the student's quality of life. Hence, this study examines the wellness factors among undergraduate students in a northern state of Malaysia. A total of 1436 undergraduate students from three colleges; COB, COLGIS and CAS were randomly selected to answer the survey questionnaire via online form. The data collected was analyzed by SPSS software. Our findings show variables like the unhealthy lifestyle, food consumption and lack of physical exercise have a significant relationship to the students' health problem including the academic results. Therefore, the university's top management perhaps need to inspire their students to improve health condition and well-being to pursue better performance in academic. **CRITICAL: Do Not Use Symbols, Special Characters, Footnotes, or Math in Paper Title or Abstract. (Abstract)*

Keywords—exercise, food, health, lifestyle, students

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INTRODUCTION

University is a venue where students experience a dynamic growth and development. It is also a transition time from being an adolescence into young adulthood. During this period, students' physical, mental, and social interactions have undergone a rapid change. Students have to learn to make crucial decisions pertaining to their new situation.

Importantly, at this stage, there are so much different life conditions and lifestyles that must be faced by students in a university environment. Therefore, in order to balanced their hectic schedule and new lifestyle many students develop a series of unhealthy behaviors, such as insufficient nutrition, lack of rests and physical activities. With the immediate change of learning style and new life settings, thousands and thousands of students develop a series of unbalanced matters such as social-emotional learning, trauma-sensitive classrooms, and student well-being. And these matters can have a significant impact on students' health and well-being.

Moreover, several past studies indicate academic related stress can reduce the academic performance and learning capacity. Other side effects may include low motivation, mental health problems, sleep disturbances and depression. The probability to dropout or discontinue the education also increased [1].

Previous studies describe that many university students are having issues when dealing with stress, anxiety and depression that mostly affect their academic performance [2][3]. On a similar note, in U.S alone, most of the university students have reported to seek mental health services which related to anxiety as the main problem. She also acknowledged that in 2018, a survey of 14,000 first-year university students in eight countries found that 35% struggled with a mental illness, particularly depression or

anxiety. As confirmed in [4], they found that psychological stress and physical activity are believed to be reciprocally related.

Their study also indicates the physical activity can be an important means to reduce psychological stress, anxiety, and depression. Reference [5], found similar results and in the end the students will finally developed the unhealthy lifestyle due to insufficient of food consumption (nutrition) and lack of physical activity. On the contrary, some studies claim that if university students have good health, then their academic performance will be positive [6][7].

PROBLEM STATEMENT

A few years back, the Ministry of Health Malaysia (MHM) stated that the prevalence of chronic diseases among young people were alarming with 33% of the age group with hypercholesterolemia or high cholesterol in blood. This number is increasing every year and there are some main reasons which are related to unhealthy lifestyle, food consumption and lack of physical activity.

Perhaps the modern infrastructure of ICT, fast food availability, and easy food delivery service, has changed most of the people's lifestyle. In the era of rapid technology, most people spend more time with the electronic devices (smartphones, laptops, online gaming, etc.) which could bring greater hazard to human health and relationship. On average, most people are aware about the impact, but they have no time and space as well as motivation to practice and to change their lives condition [8].

Similarly, the consequences of enormous fast food consumption among young people especially thousands of university students are related to health problems, which include obesity, diabetes, and metabolic syndrome [9]. Due to being fast to be served and affordable, these factors make fast food prevalent

among university students. Reference [10] showed that by consuming a large amount of fast food will be a paramount door to negative health for young generations including the most important asset to the nation – the students. In addition, a study as in [11], indicate that students' workload deadlines and academic grades are also factors that lead to deterioration of their health and could also result in stress issues.

Moreover, a review of 13 studies showed that university students with self-reported levels of stress are associated with poorer quality of life and well-being [12]. So, it becomes a priority for university management to not only market their students well but also equipped them with a healthy mind and physique before joining the industry.

RESEARCH QUESTIONS

1. *What is a relationship between the undergraduate student's unhealthy lifestyle and their health?*
2. *What is a relationship between the undergraduate student's daily food consumption and their health?*
3. *What is a relationship between the undergraduate student's lack of physical activity and their health?*

RESEARCH OBJECTIVES

1. *To investigate the relationship between the undergraduate student's unhealthy lifestyle and their health.*
2. *To investigate the relationship between the undergraduate student's daily food consumption and their health.*
3. *To investigate the relationship between the undergraduate student's lack of physical activity and their health.*

RESEARCH HYPOTHESIS

1. *There is a significant relationship between the undergraduate student's unhealthy lifestyle and their health To investigate the relationship between the undergraduate student's daily food consumption and their health.*
2. *There is a significant relationship between the undergraduate student's daily food consumption and their health.*
3. *There is a significant relationship between the undergraduate student's lack of physical activity and their health.*

RESEARCH SCOPE

The purpose of the study is to investigate the relationship of three elements possess by undergraduate students – lifestyle, food consumption and physical activity towards their health. The research scope is focused on bachelor students in a public university located at northern state of Malaysia, the University Utara Malaysia (UUM).

The students were from the aged between 19 to 25 years old which include male and female from three colleges; College of Business (COB), College of Arts and Sciences (CAS) and College of Law, Government and International Studies (COLGIS). The students consist of different ethnicity namely Malay, Chinese, Indian and others. The time frame for this study is about five months starting from September 2019 to January 2020. The data was collected by using online structured survey questionnaires

THEORETICAL FRAMEWORK

Lack of physical activity, inadequate of food consumption (nutrition) and living an unhealthy lifestyle are some common characteristics among the university students. These characters (and other negative behaviors) can affect their quality of study life during their university years and maybe extended after the graduation. Thus, based on literature reviews, the study investigates the health profile of a selected undergraduate students in UUM. The theoretical framework for the study is presented in figure 1 as follows.

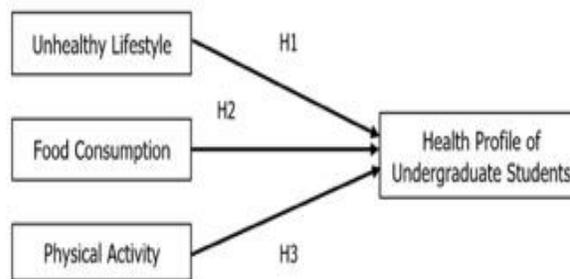


Figure 1. Theoretical Framework

According to some studies focusing on university settings, students exhibit the existence of unhealthy lifestyles and unsuitable health behaviors [13]. The unhealthy lifestyle can cause a lot of concerns to the physique and could also led to mental disorder [14]. It can also be defined as a way of life in which an individual engages in unhealthy activities such as skipping breakfast, eating too much or too fast, spending too many hours with smartphone – online games, chatting and so on [15]. On the other hand, food consumption or food intake refers to digestion of carbohydrates, protein, fat, vitamins, and minerals. A person who consumes more food or a large portion of food than the actual food intake is said to be consuming higher than the recommend serving [16].

Therefore, if university can provide an ideal guideline on food consumption, perhaps the rate of students with obesity and other health effects will be reduced. For example, the guideline from the MHM, the *Malaysian Dietary Guidelines for Children and Adolescents Evidence* can be the main reference. At least they have something to refer to and study how to be good in health management. In a study from a university in Spain shows that health sciences students are healthier and decent lifestyle than other students from different background [17]. Bonded to tight academic schedule, unplan time, lack of time, laziness and other priorities are the factors that contribute to the decline of physical activity among the university students [18]. Inefficient time management is one of the contributor for students to reduce the daily physical activity and it may become primary causes of chronic conditions or activity-caused dysfunctions [19]. Perhaps if this issue is taken for granted, it will affect their grades. As according to study as in [20], there was a significant correlation between physical activity and the students' academic performance.

METHODOLOGY

The study applies quantitative method and data were collected from a cross-sectional horizon in a specific location. The study is using a structured online survey questionnaire. Reference [21], survey is a method to involve a specific group or category of people and collecting data from a part of them in order to know what their thinking is or behave. To achieve the objective, the study developed three hypotheses. Based on previous studies, 24 compulsory structured survey questions were made using Likert-scale ranging from 1 to 5, indicating totally disagree to totally agree [22]. And the online survey questionnaire was distributed early November and collected within the same month (November 2019/Semester A192) which is based on cross-sectional type. Respondents for this study are undergraduate students from Universiti Utara Malaysia (UUM) which located at Sintok, Kedah. The undergraduate students were selected from three colleges: COB, CAS, and COLGIS. The online survey questionnaires were sent via students' email addresses, student associations and some students online study groups. The overall response rate was quite high. A total number of respondents participating in the study was 1436 students. Majority of the respondents were female (784) and male (652). Online survey responses are presented and analyzed in the next section.

RESULT AND DISCUSSION

For this study, the data were collected via online form and analyzed using Microsoft Excel and SPSS (v.25). The main

analysis carried out are correlation, reliability and regression. Table 1 shows the correlation between all the independence variables and the dependence variable – health profile.

Table 1. Correlation between unhealthy lifestyle, food consumption, lack of physical activity and health profile type styles

		Correlations			
		Unhealthy Lifestyle	Food Consumption	Physical Activity	Health Profile
Unhealthy Lifestyle	Pearson Correlation	1	.389**	.424**	.234**
	Sig. (2-tailed)		.000	.000	.000
	N	1436	400	400	400
Food Consumption	Pearson Correlation	.389**	1	.254**	.468**
	Sig. (2-tailed)	.000		.000	.000
	N	1436	400	400	400
Lack of Physical Activity	Pearson Correlation	.161**	.254**	1	.166**
	Sig. (2-tailed)	.000	.000		.000
	N	1436	400	400	400
Health Profile	Pearson Correlation	.234**	.468**	.424**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	1436	1436	1436	1436

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

A. Unhealthy Lifestyle

The first research hypothesis (H1) is indicating there is a significant relationship between the undergraduate unhealthy lifestyle and their health profile. The findings reveal that there exists a positive but weak relationship between unhealthy lifestyle and health profile where the *r* is 0.234. Besides that, the **H₁** in which has a considerable relationship between unhealthy lifestyle and health profile can be accepted. This is because the analysis stated that *p*-value < 0.000 and *t*-value = 4.803. This finding is consistent with the previous study which is the unhealthy lifestyle have a significant influence on health profile among the students in university as in [18]; [20] and [23]. It can be reported as unhealthy lifestyle is an important factor to reduce the health profile condition. The presentation of unhealthy lifestyle such as smoking, drinking (alcohol), addiction in ICT especially the online gaming, chatting, and watching free pictures are the key contributors to health profile problem such as depression, hypertension, lack of focus (learning, memorizing,

managing) and inadequate sleeping. However, in this study, the there is no intention to review the habit of alcohol drinking among the students.

On the other hand, the study discovers that many students are inadequate in preparing themselves (awareness and knowledge) when residing in the university environment. They are facing independent lifestyle away from their parents and are constricted to academic timetables and so on. Hence, making or sustain a healthy lifestyle is quite a challenge without supervision. Therefore, the unhealthy lifestyles embraced by these undergraduate students has significant relationship to increase the chances of developing health profile problems. In this study, the most affected health profile among them are lack of focusing on learning process and depression. They are having such problems in understanding, memorizing and delivering (the contents) of the subjects.

Table 2. Table coefficient between unhealthy lifestyle, food consumption and lack of physical activity type styles

		Coefficients				
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.235	0.171		18.937	.000
	Unhealthy Lifestyle	0.195	0.041	.234	4.803	.000
	(Constant)	2.356	0.215		10.938	.000
	Food Consumption	0.393	0.050	.468	7.901	.000
	(Constant)	3.585	0.140		25.570	.000
	Lack of Physical Activity	0.215	0.047	.266	5.349	.000

a. Dependent Variable: Health Profile

B. Food Consumption

The study proposes a second hypothesis (H2) where there is a significant relationship between daily food consumption and health profile. The findings disclose that there exists a positive and moderate relationship between food consumption and the undergraduate students' health profile, where *r* = 0.468. This is in line with **H₂** which says that there is a significant relationship between food consumption and health profile problem among students in UUM. The findings stated that *p*-value < 0.000 and *t*-value = 7.901. This is the highest *p*-value among the three independence variables which indicates that the relationship is major.

Thus, this cross-sectional study supports the growing body of research showing consistent positive relationships between food consumption and health profile problems among the undergraduate students in the university environment [24][10]. The study discovers two main problems: the overweightness and obesity. More than 50% of female students indicated their body weights increased by almost 18% in each semester. Meanwhile, male students show an average increased of 13% body weight in each semester. This is the impact of unhealthy dietary habits and excessive food consumption that have adverse effects on weight status among the undergraduate students in UUM. The result supports the study in [25], where the increase of weight is found

to be the foremost problem encountered by students in university.

This study discovers several factors that might be supporting factors on poor eating habits toward food consumption. First is time management, many students claimed that extensive academic schedules make them have irregular eating time. Many students are still having classes during lunchtime (11.30am – 2.30pm) and teatime (3.30pm – 5.00pm). Second is food price, where average food prices in Universiti Utara Malaysia can be considered cheaper than other university in Malaysia. It is convenient for students to buy food at the university's cafeterias including the 'fast-food' and 'mamak' restaurants which has high-calories and fats content. Third, students preference for unhealthy junk food and snacks at any outlets and lastly, they have limited choices to buy healthy food which are usually sold at premium price. Students also claimed that friends' social pressure, advertisements, and accessibility (to food stalls/café and restaurants) were important negative influences on their food consumption behaviors.

Table 3. Results of hypothesis testing

	Hypothesis	Result
H1	There is a significant relationship between the undergraduate student's unhealthy lifestyle and their health.	Accepted <i>p</i> -value < 0.000 <i>t</i> -value = 4.803
H2	There is a significant relationship between the undergraduate student's daily food consumption and their health.	Accepted <i>p</i> -value < 0.000 <i>t</i> -value = 7.901
H3	There is a significant relationship between the undergraduate student's lack of physical activity and their health.	Accepted <i>p</i> -value < 0.000 <i>t</i> -value = 5.349

C. Lack of Physical Activity

The third hypothesis is predicting the significant relationship between lack of physical activity and health profile problem. The findings reveal there exists a positive and moderate relationship between lack of physical activity and health profile problem where $r = 0.424$. Besides, H3 shows there is a significant relationship between lack of physical activity and health profile problem among undergraduate students in UUM. The equations are an exception to the prescribed specifications of this template. You will need to determine whether or not your equation should be typed using either the Times New Roman or the Symbol font (please no other font). To create multileveled equations, it may be necessary to treat the equation as a graphic and insert it into the text after your paper is styled.

This finding is consistent with the previous study which is lacking physical activity has a significant influence towards the health profile [26]. The study also indicated besides lack physical activity, long hours in study and intensive usage of electronic social media are other factors that increased the body weight among the students [27]. The study also discovers the other effect of lack of physical activity can be uncomfortable feeling towards (body) figures.

Approximately 39% of students reported feeling very tense when dressing up (to classes). The effect is more towards female students as compared to male students. The study also found that total effect of physical activity on academic performance was significant but with a minor correlation. This finding is supported by a study [28], where they found students' physical activity increased their academic achievement. The study also noticed that students are aware that lack of any physical activity could lead to chronic diseases such as heart disease, high blood pressure and depression [29].

CONCLUSION

This study has successfully achieved its objectives by investigating three factors that have impact on health profile of undergraduate students in UUM. The three factors are unhealthy lifestyle, food consumption and (lack of) physical activity. From this study, these three factors positively and significantly influenced student's health profile. Therefore, the top management of the university should be seriously looking into this matter. The nutritional and health habits of university students in UUM should be improved since the food consumption was not aligned with the (intake) recommendations from the National Coordinating Committee on Food and Nutrition. Perhaps, appropriate health awareness programs should be conducted to educate students on the necessary skills to embrace a healthy lifestyle and proper diet which could influence them to make better choices throughout their lifetime.

On the other hand, if the health problems are not resolved, other than depression and anxiety issues, probably the effects of the health profile will affect the students' academic performance. In addition, university also should promote healthy lifestyle by organizing more programs on physical activity as it were found to have a positive impact on academic performance. Finally, this study also identified some limitations while conducting the research process. Perhaps, future study will involve postgraduate students in order to get a holistic view of students' health profile. As a conclusion, this study can provide a testability finding that could be replicated in other universities to promote better students' health profile.

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