Weight Management of Obesity Among Student In Universiti Malaysia Kelantan

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ABSTRACT

Obesity has been one of the issues that keeps growing concern in Malaysia. This research with the highest prevalent of obesity in Malaysia, the researcher wishes to look at how students at Universiti Malaysia Kelantan (UMK) may manage their weight through exercise. The research objectives of this study are to investigate the relationship between unhealthy lifestyle, environment factors and control over behaviour on obesity in Universiti Malaysia Kelantan (UMK). The study was conducted using a quantitative research approach which is through online questionnaire to collect the data. There were 120 respondents participated in this study. The study proven that there is significant relationship between unhealthy lifestyle, environment, control over behaviour and obesity among students in Universiti Malaysia Kelantan (UMK). Throughout the whole research, there are a few attentions and discussion about the limitation should be emphasized in this study. The implication of this study were lacking of current studies on related subject and there were some respondents who did not give full cooperation in the data collection process which makes it difficult for the researcher to continue the study in a short period of time.

Keywords: Obesity, Unhealthy Lifestyle, Environment, Control Over Behaviour

INTRODUCTION

Obesity has been one of the issues that keeps growing concern in Malaysia. 17.4% of respondents report eating fast food at least once a week. But the majority of them claimed to eat fast food at least once a month. Moreover, it was shown that younger age groups, Malay people, and childless people were more significantly likely to consume fast food weekly. Compared to other ethnic groups, Malay people eat fast food more frequently. Most of the participants were overweight. Only 13.8% of obese people said they ate fast food weekly, and only 50.8% said they did so monthly. There is little correlation between fast food consumption frequency and obesity. Fast food eating on a regular basis is really concerning. Increased usage is significantly influenced by accessibility (Abdullah et al.,2017).

Other findings showed that It is important to prevent obesity and all students should strengthen positive behavioral habits, increase awareness, and promote workable prevention methods. For preventing overweight and obesity is to raise public awareness. Strong school- based policies,

successful curricula, and knowledgeable mentors in spreading healthy eating and physical activity programmes in schools. Similar significance was noted in recent studies, which claimed that school-based intervention strategies led to behavioral change in terms of an increase in dietary intake of nutritious foods and a decrease in consumption of unhealthy foods among the younger generation (Tong et al., 2022). Therefore, the main focus of this study is to find out Weight Management Of Obesity Among Student In Universiti Malaysia Kelantan (UMK).

There were three objectives of this research:

1. To investigate the relationship between unhealthy lifestyle and obesity of students in Universiti Malaysia Kelantan (UMK).

2. To investigate the relationship between environment factors and obesity of students in Universiti Malaysia Kelantan (UMK).

3. To investigate the relationship between the control over behavior and obesity students in Universiti Malaysia Kelantan (UMK).

SIGNIFICANCE OF THE STUDY

University Students
This study is made available to students at all institutions so they may conduct a detailed analysis of obesity weight management and learn how to regulate their behaviour while consuming foods that might contribute to obesity. The advantages of this study might encourage obese persons to maintain a healthy diet and weight. Improvements in risk variables that can be brought about by nutrition, exercise, and behavior management can be included.

Pusat Kesihatan Universiti (PKU)
The significance of the study conduct by this research is expected to make it a guideline to get sort of data about students who are in obesity class. By data and targeted students, Pusat Kesihatan Universiti (PKU) can create a medical check-up event to be aware of obesity in students. This event can create health awareness among students and staff of Universiti Malaysia Kelantan (UMK). Lecture could be an important role to play in attracting more students and becoming a more healthy person. This could be one of steps to create a healthy community in Malaysia.

Guidance and Counseling To Create A University Program
From the study, they can create a healthy program at the university. This is because this program can attract students to know their health level and can create a healthy community in the future. This program can make students sensitive and aware of situations where any unhealthy activities can affect their learning and lifestyle. Guidance and counseling play a role in advising students to always be healthy.

Institut Jantung Negara (IJN)
From the research Institut Jantung Negara can play the role of guiding the community by using this research to create an event related to obesity. This data from the research could be used to find the fact that could affect the human body. Programs that involve the community can give health

warnings about obesity that could affect the human body. This way can create more health to the community by providing the event and advice to the community.

LITERATURE REVIEW

Unhealthy Lifestyle

It's completely obvious that university students live unhealthy lifestyles. Poor diet, excessive drinking, smoking, and insufficient sleep are all contributors to this. Therefore, given their hectic schedules, many students' health may ultimately suffer from a diet that lacks diversity and nutritious value, which is not ideal. (Griffin, 2016).

In connection with this, smoking is another bad habit that has an impact on kids. Students who only smoke when they go out on dates or socialize are known as "social smokers." The hazards of smoking do not go away even if you just smoke sometimes and "socially." Each cigarette raises the chance of developing lung, heart, and cancer problems, which together take up to six million lives annually. Even if they are only doing it "socially," Students must stop smoking since it is one of the biggest causes of mortality in the country. This is a likely scenario given that several countries throughout the world are supporting tobacco bans and beginning to oppose multinational cigarette companies (Chan, 2016).

Environment

Social media is an environment that could have an impact on obesity. These days, social media, television shows, and smartphone applications heavily influence our eating habits and decision-making processes. Among the evidence, taking pictures of food for Instagram before eating, standing in long queues to buy the hot food or drink online, even filming their dinner live. This is usually driven by the desire to get "likes" and comments, which is a sense of enjoyment from the virtual world's attention. Sometimes trying new foods with friends is not wrong, but we need to be careful to what extent our food intake is influenced by social media and how not to be deceived (Yap, 2019).

Next, the pressure of environment also will face by students is mainly in terms of time and no breaks enough to cause them to choose to reduce stress by having fun and practicing unhealthy eating. The students will be extremely busy especially during exam week, because of that they will not maintain a good eating schedule, instead they will replace it with smoking and fast food. Some students do not eat during the day because they are busy with their assignments and they will fill the empty stomach with a late dinner, which is less than two hours before bedtime. In addition, there are also among students, especially male students who like to hang out in stalls or restaurants late at night.

Control Over Behaviour

The core components of weight-control therapy for overweight and obese patients are behavioral modifications with an emphasis on dietary and physical activity improvements. At least temporarily, behavioral changes can aid in weight loss and improve their health. This list of behavioural treatments for managing student obesity is provided. A structured approach to changing lifestyle behaviours that may affect behaviour includes disciplines like exercise, food, and others. Goal-setting, stimulus control, stress factor legislation, ego, reorganisation of thought, stress management, figuring out solutions, and support systems are elements of behaviour modification.

More efficient and durable weight management can be accomplished by exercise, dietary modifications, and behavioural therapy. (Olateju et al., 2021). According to Radzi (2019), tension-producing situations not just the lack of social confidence and poor behavioral control among university students, but also elements like inadequate or disturbed sleep that can lead to obesity.

Obesity

One in five young people suffer from obesity, a complex chronic condition. Numerous pediatric treatment interventions concentrate on attempts to modify behaviour or lead healthier lifestyles, but they are constrained by their intensity and rendered ineffective by their inability to address the social circumstances of obesity. The study's main goal was to examine the existing treatment methods for obese patients by pediatric primary care providers (Johnson et al., 2022). Obesity that is chronic or non-communicable is now largely acknowledged as a disease. Recent research is shedding new light on the pathophysiology of unwelcome weight gain, the mechanisms by which obesity persists in the face of reasonable attempts to alter lifestyle choices, and the detrimental impact of both central and widespread obesity on health (Purnell, 2018). Males in the lowest income group (31.5%) and highest income bracket (32.6%) had the same frequency of obesity, whereas obesity rates of women dropped with rising income (from 45.2% to 29.7%) (Hales et al., 2017).

Research Hypothesis

Literature review shows that independent variables such as unhealthy lifestyle, environment, and control over behaviour that influence weight management of obesity among student in Universiti Malaysia Kelantan. Therefore, the study proposes to examine the level of factors among these variables. Based on the literature discussed, the hypothesis of this study is summarized as follows:

H1   There is a significant relationship between unhealthy lifestyle and obesity among student Universiti Malaysia Kelantan.

H2   There is a significant relationship between environment and obesity among student Universiti Malaysia Kelantan.

H3   There is a significant relationship between control over behaviour and obesity among student Universiti Malaysia Kelantan.

Research Framework

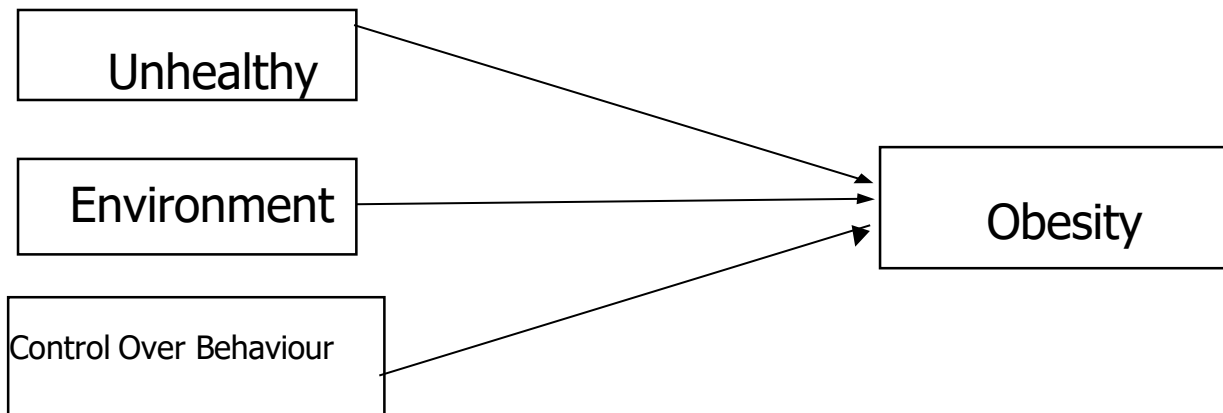The figure 1 below shows the research framework use for this study.

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┌─────────────────────┐
│     Unhealthy       │ ─────────────────┐
└─────────────────────┘                  ▼
┌─────────────────────┐          ┌─────────────────────┐
│    Environment      │ ───────▶ │       Obesity       │
└─────────────────────┘          └─────────────────────┘
┌─────────────────────┐                  ▲
│ Control Over Behaviour │ ──────────────┘
└─────────────────────┘
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Figure 1: Research Framework

METHODOLOGY

Research Design

This research design is a framework that has been created to find the overall answers to the research questions conducted. the approach of this study is to use quantitative methods. A quantitative research approach has been used for weight management of obesity among student in Universiti Malaysia Kelantan. The quantitative approach means that it prioritises quantity. This is because this research will involve numbers, numerical or statistical data. The quantitative approach is structured, has clear scheduling, and focuses on results.

Data Collection

Researchers collect primary data directly from primary sources such as survey like used a questionnaire through the Google form. The questionnaire is applied to collect the information regarding that lead to the factors that affecting weight management of obesity among student in Universiti Malaysia Kelantan. The questionnaire was distributed using an online platform to all students at Universiti Malaysia Kelantan. The questionnaire was distributed through online and social media like WhatsApp and collected data among the student.

Sampling

The researchers use non-probability convenient sampling that include of factor related to Weight Management of Obesity among 120 respondent students in University Malaysia Kelantan from the population of 11 965 students. The researchers prefered to use this non- probability convenient sampling compared to probability samples which utilize mathematical procedures. In addition, this sampling technique is easy to do and does not use any cost required for this research. Respondents from the questionnaire were students in Universiti Malaysia Kelantan were selected for this survey. Respondents were selected to answer this questionnaire and all data were collected based on their answers.

Data Analysis

Data analysis is a core element of the data analysis and Business Intelligence (BI) and is the method of gaining insights that guide business decisions making. A tool that is used in analyzing the data is a tool for Statistical Package Social Science (SPSS) version 29 programmed operation software. (SPSS) data, including such valid percentage and cumulative percentage, will be processed into statistics. To analyze the data, researchers have chosen easy descriptive analysis. The objective is to achieve a range of respondents correlated with different values of a single variable and to express these numbers in percentages. This technique is used by researchers because it is about interpreting and analyzing.

FINDINGS

Result of Frequency Analysis

Table 1 shows the result of frequency analysis of respondents.

Table 1: Frequency Analysis

Demographic characteristics	Frequency	Percentage (%)
Gender		
Male	60	50.0
Female	60	50.0
Years of study		
Year 1	15	12.5
Year 2	35	29.2
Year 3	64	53.3
Year 4	6	5.0
Campus		

Campus Bachok	38	31.7
Campus Jeli	20	16.7
Campus Kota	62	51.7
Age		
18 – 21 years old	26	21.7
22 – 24 years old	87	72.5
25 and above	7	5.8
Race		
Chinese	34	28.3
Indian	27	22.5
Malay	59	49.2
Religion		
Buddha	25	20.8
Christian	11	9.2
Hindu	26	21.7
Muslim	58	48.3
Education Level		
Degree	117	97.5
STPM/ Diploma	3	2.5

Table 1 shows the result of frequency analysis of respondents. The research focus on student in Universiti Malaysia Kelantan. The result shows that the repondents were same on both which is 60 respondent (50%) for each genders. Next, majority of respondent come from year 3 which is 64 respondents which is (53.3%) while year 1 is 15 respondents with (12.5%), year 2 students with 35 respondents with (29.2%) and year 4 students with 6 respondents (5%). Next, the respondents mostly same from *Kampus Kota* which is 62 respondents which is (51.7%) while *Kampus Bachok* is 38 respondents which is (31.7%) and lastly *Kampus Jeli* is 20 respondents which is (16.7%). In addition, the ages of this result shows that from the ages 18 to 21 years old have 26 respondents which is (21.7%), 22 to 24 years old have 87 respondents which is (72.5%) and lastly 25 years old

have 7 respondents which are (7.8%). Next. The race of this result shows that mostly Malay have the highest which is 59 respondents which is (49.2%), Chinese is 34 respondents which is (28.3%) and lastly Indian which is 27 repondents with (22.5%). Next, the religion is show that muslim had the highest respons which is 58 respondents which is (48.3%) followed by Christian which is 11 respondents with (9.2%), Buddha with 25 respondents which is (20.8%) and lastly Hindu with 26 respondents with (48.3%). Lastly we have for educational level which is from degree there is 117 respondents which is (97.5%) and STPM/ Diploma with 3 respondents which is (2.5%).

Result of Descriptive Analysis

Table 2 shows the result of descriptive analysis of variable.

Table 2: Descriptive Analysis

Variable	Items	Mean Score	Standard Deviation
Obesity	Do you believe your eating habits are the cause of your obesity condition?	4.66	0.572
	Is your physical health affected by obesity?	4.83	0.417
	Have your social life been limited because of obesity?	4.60	0.691
	Are you depressed because you are obese?	4.70	0.495
	Do you believe obesity has triggered depression?	4.66	0.615
	Do you believe that you can lose weight?	4.59	0.692
	Do you believe exercise will help you lose weight?	4.58	0.657
	Do you believe that eating too often is the cause of Obesity?	4.71	0.640
	I feel fun when I do exercise.	4.29	0.873
Unhealthy Lifestyle	I feel tired when I exercise regularly.	4.53	0.756
	I smoke cigarettes every day.	3.97	1.275
	I drink alcohol every day.	3.64	1.295
	I often eat fast food when I'm bored.	4.53	0.829
	I often eat foods high in sugar.	4.57	0.817

	I don't practice eating according to the food pyramid.	4.48	0.840
	I exercise less than 30 minutes a week.	4.50	0.879
Environment	I often eat excessively at night because I am tired and hungry when I get home.	4.52	0.733
	I often spend my free time playing video games, surfing the internet and watching television all day.	4.52	0.733
	I feel stress every day.	4.46	0.955
	I often go out gardening or walking in the park every evening.	4.08	0.161
	I exercise less than 30 minutes a day even on holidays.	4.38	0.989
	I regularly participate in doing household chores such as cooking, laundry and cleaning the home area.	4.19	0.955
	I often take 3 types of side dishes such as chicken, meat and eggs at the same time.	4.58	0.740
	I often eat rice in a day.	4.73	0.546
Control Over behavior	I always eat late at night when I come home tired.	4.52	0.778
	I always feel hungry even after eating.	4.45	0.915
	I don't see the benefit of doing exercise in my daily routine	4.38	1.046
	I have other work that must be completed instead of exercising.	4.53	0.756
	I feel not confident with myself every time doing an exercise in public.	4.63	0.607
	I feel fun when I do exercise everyday.	4.31	0.968
	I feel tired when do not doing my exercise regularly.	4.34	0.948
	I enjoy doing my exercising.	4.29	0.902

Table 2 was represented the descriptive analysis of variable. Based on dependent variable of this study, obesity descriptive analysis, the highest mean score is 4.83 it is "Is your physical

health affected by obesity" with standard deviation is (0.417) in our 52 research. Other than that, for the questions "Do you believe exercise will help you lose weight" has 4.58 the lowest mean score with (0.657) at standard deviation. Next, for the first independent variable, unhealthy lifestyle, questions number 6 " I often eat foods high in sugar" were showed the highest mean score, it is 4.57 with standard deviation is (0.817) in our research. In addition, for lowest of the mean score, which is "I drink alcohol everyday" which is 3.64 with standard deviation (1.295). Besides, for the second independent variable which is environment, the results of the highest mean score stated that question number 7, "I often take 3 types of side dishes such as chicken, meat and eggs at the same time." With mean 4.58 SD= 0.740) while the results of the lowest mean score was stated that question number 4, "I often go out gardening or walking in the park every evening." With (M= 4.08, SD= 1.161). Lastly, for the third independent variable which is control over behavior, the question number 4 with the greatest average score was "I have other work that must be completed instead of exercising." (Mean 4.53 SD= 0.756), while the question with the lowest average score was "I enjoy doing my exercising." (Mean 4.29 SD= 0.902).

Result of Reliability Analysis

Table 3 shows the result of reliability analysis based on dependent variable and independent variable.

Table 3: Reliability Analysis

Variable	Number of Items	Cronbach's Alpha
Obesity	8	0.743
Unhealthy Lifestyle	8	0.894
Environment	8	0.908
Control Over Behavior	8	0.902

Table 3 showed the results of the reliability analysis based on the dependent variable and each independent variable. The dependent variable which is obesity with 8 questions has Cronbach's Alpha value of 0.743 which is good and acceptable. For the first independent variable, unhealthy lifestyle with 8 questions shows Cronbach's Alpha value of 0.894 which is good, reliable and acceptable. The second independent variable, environment which contains 8 questions shows the Cronbach's Alpha value of 0.908 which has very good internal consistency. The third independent variable, control over behavior with 8 questions in the questionnaire provided has Cronbach's Alpha value of 0.902 which is reliable and very good.

Result of Pearson Correlation Analysis

Table 4 shows the result of Pearson correlation analysis based on the hypothesis.

Table 4: Pearson Correlation Analysis

Hypothesis	P-Value	Result (Supported/ Not Supported)
H1 - There is a significant relationship between unhealthy lifestyle and obesity among student Universiti Malaysia Kelantan.	0.001	H1 is supported
H2 - There is a significant relationship between environment and obesity among student Universiti Malaysia Kelantan.	0.001	H2 is supported
H3 - There is a significant relationship between control over behaviour and obesity among student Universiti Malaysia Kelantan.	0.001	H3 is supported

Table 4 shows the result of Pearson correlation analysis based on the hypothesis. According to the results, the significant p-value of H1 is 0.001 which is below 0.05 and the p-value is under

0.05. Thus, the study can reject the null hypothesis. Pearson Correlation value of 0.497 stipulates the strength of the relationship between unhealthy lifestyle and obesity is moderate and the result is supported. Next, the significant p-value of H2 is 0.001 which is below 0.05 and the p-value is under 0.05. Thus, the study can reject the null hypothesis. Pearson correlation value of 0.560 stipulates the strength of the relationship between environment and obesity is strong and the result is supported. Lastly, the significant p-value of H3 is 0.001 which isbelow

0.05 and the p-value is under 0.05. Thus, the study can reject the null hypothesis. Pearson Correlation value of 0.55 stipulates the strength of relationship between control over behavior and obesity is moderate and the results also is supported.

DISCUSSION AND RECOMMENDATION

Discussions are aimed at solving questions and addressing hypotheses as mentioned in the first chapter of this study. In general, the study has extensively researched weight management of obesity among student in Universiti Malaysia Kelantan. The data collection of this purpose study is about how environment, control over factors and unhealthy lifestyle could bring obesity to an issue among students of Universiti Malaysia Kelantan. The data collection is using non probability convenience sampling.

The unhealthy lifestyle is the term where people are not following the guideline of being healthy by government or any sources. The student of student at Universiti Malaysia Kelantan. Just keep to unhealthy ways like eating junk foods, smoking and also less exercise. Unhealthy lifestyle can be measured using a food frequency questionnaire K:10. This questionnaire can be used to find the answer in this research. The environmental fact that causes obesity is by their surroundings. This is because of the location, curious nature, and also mindset. The strategic business location of a certain place that can allow people easily access it also can make obesity among students in Universiti Malaysia Kelantan.

Next, the curious nature of trying something new also could lead to obesity when trying almost all foods that attract people's appetite. Other than that, the mindset also could be one of the reasons why students in Universiti Malaysia Kelantan are having obesity problems. Next, the control over behavior is also one of the factors that cause obesity among students in Universiti Malaysia Kelantan. The behavior is more on physical inactivity, unproductive sport and also unhealthy diet. All these reasons could lead to obesity.

Several suggestions have been made to enhance our research for next studies. Future study on how to effectively control obesity among responders might be beneficial to other researchers. In order to attract attention throughout the whole study process, from conception to dispersal, we first considered to have a target for a long time period as researchers in order to demonstrate an extraordinary finding at the onclusion of study. Next, because of the limited time available, it is proposed that future researchers broaden the unit's scope in order to generate their studies with a bigger target audience from only one particular course of students at Universiti Malaysia Kelantan (UMK). Future researchers intend to use other independent variables to affect how important weight management is to our continued existence in society. The surroundings significantly contributes to promoting weight management and simplifying daily movement plans. This would be an appropriate proposal given the importance of the independent variables. Lastly, future researchers shouldn't depend just on surveys for gathering

results. Face-to-face interviews will be employed in the future to get direct information from respondents. As a result, it was possible to contribute to the study with data than was more precise, reliable, and valuable.

CONCLUSION

In conclusion, the study has been accomplished to discover the factors that affecting weight management of obesity among student in Universiti Malaysia Kelantan. Three independent variables, namely unhealthy lifestyle, environment and control over behaviour have been chosen to examine their relationships with the dependent variable, which is obesity. A total of 120 respondents from the age of 18 years old and 25 years above were selected from students in Universiti Malaysia Kelantan. Overall, based on Pearson's correlation analysis, environment factors have the strongest correlation compared to another factors which is followed by control over behaviour factors and the least unhealthy lifestyle factors.

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