



The Relationship Between Nutrition Knowledge And Eating Habits Among Students Bachelor of Education in Home Science, Universiti Putra Malaysia

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Abstract : Students are confronted with health problems that become more and more problematic from time to time. Due to an unbalanced eating culture and will threaten their health. This situation occurs also due to the need for nutritional knowledge in teenagers or students. Therefore, this study aims to identify the relationship between nutrition knowledge and eating habits among Students Bachelor of Education in Home Science, Faculty of Educational Studies, Universiti Putra Malaysia. This correlation study involved 92 Faculty of Education, Universiti Putra Malaysia students. Random is easy to use as research sampling. The research instrument uses a questionnaire that consists of three parts. Part A is about background. Section B measures nutrition knowledge, and Section C measures students' eating habits. Descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential analyses were used to analyze the study data. The study results show that Bachelor of Home Science Education students have a high level of nutrition knowledge. Similarly, the level of eating habits is at a high level. Correlation tests show a significant positive relationship between the level of nutrition knowledge and eating habits ($r = 0.536$, $p < 0.05$).

IndexTerms - Nutrition Knowledge, Eating Habits, Students

I. INTRODUCTION

Food is a basic need of human life. Human physical, emotional, and mental health is closely related to balanced food intake. Therefore, food is the most essential need and should not be neglected. Food is an energy supplier to humans in ensuring the continuity of human life processes such as daily activities. Therefore, food plays the most significant role in human life. In ancient times, food sources were limited compared to today. In the past, society mainly experienced a lack of nutrients and necessary vitamins. Still, nowadays, the situation is very different; food is straightforward to find and everywhere. The organization now also has many health problems, such as obesity and diabetes, caused by overeating and extending to other health problems. Since 1980, almost 350 million adults worldwide have suffered from the chronic disease of diabetes, twice as much as evidenced by a study reported by the medical journal *The Lancet* (2011).

Therefore, the nutritional aspect must be seriously emphasized, because psychological and physical changes take place during this period. To meet the needs of a healthy youthful body, they need a balanced diet. Lack of nutrients can affect the body's functionality and the cells in the body. Therefore, food is the primary source of nutrients that the human body needs. Next, to ensure that the internal organs function properly, a balanced intake of nutrients is essential. The nutrient content needed by an individual includes carbohydrates, proteins, fats, vitamins, salt, minerals, and water (Kirschmann, 1996). A balanced diet can enable a good physique (Frankle, 1993). The effect on the student's learning level is closely related to the consumption of the right food, which improves the student's abilities. The food needs of each individual are different according to each stage of life. In life, adolescence is a transition from childhood to adulthood. At this stage, there are many changes in growth patterns, for example, physiological, physical, hormonal, and biochemical changes. Therefore, individuals need to care for their health to obtain a healthy body and an intelligent brain. Students often make mistakes in food choices if they have less knowledge of balanced eating practices and proper food selection. The lack of knowledge about nutritional practices makes it easy for them to get diseases such as high blood pressure, diabetes, and others due to not knowing the food requirements required according to age. The problem of obesity, diabetes, and lack of focus while studying is caused by a lack of knowledge about balanced eating practices. Reports from the World Health Organization (WHO) and the World Food and Agriculture Organization (FAO) have found that the percentage of human deaths is due to unhealthy and balanced human eating patterns, not due to cancer, AIDS, or accidents (Utusan Malaysia, 2010).

2. NEED OF THE STUDY.

Today, it is boiling to talk about the issue of neglecting balanced eating habits among people in this country, especially students or teenagers, even though the times are rapidly developing with the development of science and technology today. Students or teenagers are still exposed to health problems that occasionally become increasingly worrisome. Due to an unbalanced eating culture and will threaten their health. This situation occurs also due to the need for nutritional knowledge in teenagers or students. Therefore, teenagers or students often ignore balanced eating practices and choose food according to their preferences. They are more prone to unwanted diseases such as gout, heart disease, diabetes, and other diseases. According to O. Brown et al. (2017), many health problems around the world are detected through the history of food intake since childhood, such as heart disease, diabetes, some types of cancer, gout, arthritis, and so on, are detected through the history of food intake since childhood.

In Malaysia, the problem of obesity and fatness is still prevalent among Malaysians. The problem has been seen increasing daily as if it cannot be contained. Statistics show that 73.8 percent of students know about balanced nutrition, but only 11.2 percent practice a balanced diet (Utusan, 2015). According to the Hospital Kuala Lumpur (HKL) Department of Dietetics and Nutrition, it is estimated that a quarter or 25 percent of the 100 students in this country will suffer from obesity and fatness in 2020 and are at risk of various diseases. In Malaysia, the problem of obesity and fatness is still prevalent among Malaysians. This problem is seen increasing daily as if it cannot be contained. Statistics show that 73.8 percent of students know about balanced nutrition, but only 11.2 percent practice a balanced diet (Utusan, 2015).

Some overeat, especially foods containing more fat, causing obesity. Obese diseases can include high blood pressure, diabetes, and heart disease. Studies show obesity causes the accumulation of excess fat in the body, which contributes to obesity. When the body is fat, it will cause various diseases, including diabetes, high blood pressure, and heart disease.

2.1 Theory Health Belief Model

The field of health education often uses the Health Belief model. Social scientists at the United States Public Health Service developed this model in the early 1950s. Six constructs influence an individual's decision-making and prevention in controlling a disease. A person who knows they have the potential to get a disease is ready to act.

The second belief is perceived severity, which means the belief in the severity of their illness obtained from medical knowledge and information. This belief may also be from the experience of individuals who previously had the disease apart from existing knowledge and medical information.

The third belief is related to perceived benefits, which means that a person believes he gets benefits if he behaves well. Next, the fourth belief is perceived barriers, where a belief will cause an obstacle to practice a practice, for example, the cost of expensive materials. This theory also states that an individual's behavior is influenced if there is an action (cues to action). The behavior of an individual changes if there is a sign of action, which is an event, thing, or individual. For example, a health campaign from the mass media or someone seeing a family member facing an illness will influence an individual to act and practice better behavior (Ali, 2002). Next, a Daddario (2007) study stated that obesity and having a family member or acquaintance have the same problem when an individual watches advertisements or programs on social media. This situation influences the individual to change their behavior to a healthier one.

2.2 Theory Planned Behaviour

Planned Behavior Theory (Ajzen, 1988) is a theory that is one of the most influential models related to attitudes and behaviors or practices. This theory is often widely used in the health field. This theory is also used to explain a person's intentions, which then explain the individual's behavior. Existing knowledge is used to consider their behavior or practice and implicitly and explicitly consider the consequences of their actions.

The Theory of Planned Behavior includes attitudes, subjective norms, behavior counters, intentions, and behavior. According to this theory, beliefs, intentions, and behavior are developed through attitudes, subjective norms, and behavior rather than behavioral intentions. The mediating variable between attitude or subjective norms and behavior is intention and behavior (Ajzen, Fishbein, 1980). Various behaviors, such as eating healthy, are not always considered to be driven by the individual's intention. Behavior must also take into account factors outside of the individual's control and is referred to as behavioral control (Ajzen, 1985). According to the theory of planned behavior, a person will have the intention to change his or her behavior and practice a positive behavior if he or she has a positive attitude toward the behavior and important people around him or her want the person to exhibit a positive behavior.

3. RESEARCH METHODOLOGY

Questionnaires are used as research tools. A descriptive correlation using questionnaire was used to obtain the respondents' information on the level of nutrition knowledge and eating habits of Bachelor of Education in Home Science Universiti Putra Malaysia.

3.1 Population and Sample

The study population consisted of Bachelor of Home Science Education students at the Faculty of Education, Universiti Putra Malaysia. The 2nd, 3rd and 4th year students form the population of this study — 116 subjects. The 2nd year, 3rd year and 4th year students of Bachelor of Home Science Education programme at the Faculty of Education, Universiti Putra Malaysia have been studying nutrition. Therefore, they were selected as respondents for this study.

3.2 Descriptive Statistics

Simple random sampling was used as the sampling method. A total of 116 Bachelor of Home Science Education students were randomly selected, with the sample consisting of 92 students from Year 2, Year 3, and Year 4 of the Bachelor of Home Science Education. According to the sampling table of Krejcie and Morgan (1970), the required sample is 92 with a population of 116.

The instruments used in this study were adopted from the dissertation of Norlilah Binti Hj Yatimin (2004) with slight modifications. The questionnaire is divided into three parts: Part A, Part B, and Part C. Part A contains the background of the respondents, namely age, race, academic qualifications of the guardians, and monthly family income. Part B consists of two parts. Part 1 is a question about dietary knowledge, and Part 2 is a question about eating habits. Each question item is measured using a Likert scale (five-point response type). According to Moser and Kalton (1977), this type of response scale has high reliability compared to other types.

4. RESULTS

4.1 Analysis Of Each Dimension And Overall Level Of Nutrition Knowledge

Variables	Mean	SD	Level
Nutrient Sources	4.22	0.60	High
Nutrient Functions	4.31	0.69	High
Effect of excess and lack of nutrients	4.24	0.74	High
Menu planning according to a balanced diet	4.24	0.63	High
Overall	4.25	0.63	High

Table 6 shows the summary for each dimension and the overall level of nutrition knowledge of Bachelor of Education in Home Science at Putra Malaysia University. The level of nutrition knowledge of the students for each dimension of nutrition knowledge for nutrient sources, nutrient functions, the effects of excess and deficiency of nutrients, and menu planning according to a balanced diet is at a high level overall (mean=4.25;SP0.63).

4.2 Level Of Eating Habits

No	Items	Mean	SD	Level
1	I eat fresh fruit.	3.95	0.90	High
2	I eat raw vegetables.	3.50	1.12	Moderate
3	I eat fish, meat, and chicken.	4.40	0.80	High
4	I eat dairy products.	4.03	0.90	High
5	I eat meat products.	4.04	0.98	High
6	I eat a balanced diet.	4.00	0.88	High
7	I eat snacks.	3.40	1.05	Moderate
8	I drink soft drinks.	3.28	1.12	Moderate
9	I eat on time.	3.21	1.01	Moderate
10	I read food labels.	3.32	1.10	Moderate
11	I pay attention to the calorie content of the foods I eat.	3.25	1.01	Moderate
12	I eat fried foods.	3.87	0.92	High
13	I eat steamed foods.	3.78	0.85	High
14	I eat baked foods.	3.91	0.79	High
15	I have breakfast	3.83	0.93	High
16	I have eaten lunch	4.25	0.70	High
17	I have eaten dinner	4.04	0.92	High
	Overall	3.77	0.50	High

(n=92; Level: Low = 1.00-2.33; Moderate = 2.34-3.66; High = 3.67-5.00)

The level of eating habits of the respondents was measured by 17 items. Table 4.6 shows that all 17 items have a high score. The results of the study show that the three items with the highest mean and standard deviation are the item "I eat fish, meat and chicken" with a mean of 4.40 and a standard deviation of 0.80 (high level), followed by the item "I eat lunch" with a mean of 4.25 and a standard deviation of 0.70 (high level). Followed by the item "I eat meat products" with a mean of 4.04 and a standard deviation of 0.98 (high level) and followed by the item "I eat for dinner" with a mean of 4.04 and a standard deviation of 0.92 (high level). The next three items that have a moderate value are the item "I drink soft drinks" with a mean of 3.28 and a standard deviation of 1.12 (high level), followed by the item "I pay attention to the calorie content of the food I eat" with a mean of 3.25 and a standard deviation of 1.01 (high level). This was followed by the item "I eat on time" with a mean of 3.21 and a standard deviation of 1.01 (high level). Overall, the analysis shows that the level of eating habits of the respondents is at a high level (mean=3.80: SP =0.51).

4.3 The Relationship Between Nutritional Knowledge And Eating Habits

Level of Nutritional Knowledge	Level of Eating Habits
Correlation Pearson	.536***
Significant (2-ekor)	.000***
N	92

The third objective is to determine the relationship between nutrition knowledge and eating habits among Bachelor of Home Science Education students at Universiti Putra Malaysia. Pearson's correlation analysis was conducted with significant level (0.05). The results of the study, as shown in Table 4.7, show $r = 0.536$ with a value of $p < 0.05$, indicating a significant positive relationship at a moderate level between nutrition knowledge and eating habits among Bachelor of Home Science Education students at Universiti Putra Malaysia. This result implies that the level of nutrition knowledge has a parallel relationship with eating habits. As knowledge increases, eating habits improve and vice versa.

5. DISCUSSION

This study investigates the relationship between nutrition knowledge and eating habits among undergraduate home economics students at Universiti Putra Malaysia. The information obtained from this study is very useful for other researchers who want to explore nutrition knowledge and eating habits. The study found that there is a significant positive relationship between nutrition knowledge and eating habits of Bachelor of Education in Home Science Universiti Putra Malaysia. This means that the students have implemented the learned nutrition knowledge in their daily eating habits. Based on this result, it is recommended that teachers, lecturers and the Ministry of Health continue the teaching and learning process on nutrition either in the higher educational institutions (MOHE) or in the schools.

In addition, students need to be educated about the consequences and chronic diseases if they do not eat a balanced diet. Therefore, it is hoped that nowadays students can practice a healthy and balanced diet with all the nutrients necessary for their bodies. A balanced diet should be at the forefront of an individual's daily diet in order to prevent various chronic diseases. All stakeholders, whether inside or outside the education system, need to be aware of the problems related to nutrition and eating habits of today's teenagers. They must formulate a program or educational policy and ensure that it is implemented, especially in the education system, so that students are always informed about health issues. Therefore, all parties must act to ensure that students' nutrition knowledge and eating habits are always at a high level. Parents, teachers, lecturers, ministries, the Malaysian Ministry of Education, the food industry, and non-governmental organizations are advised to always be aware and provide important nutrition information so that students can apply the nutrition knowledge they have acquired. The use of posters, newspapers, and health magazines is one of the appropriate media to provide knowledge about healthy eating.

Overall, the study met its objectives and answered the research questions posed. The research question includes students' level of nutrition knowledge, students' eating habits, and the relationship between level of nutrition knowledge and eating habits. The study found that the level of nutrition knowledge and eating habits of Bachelor of Home Science Education students in the Faculty of Education, Universiti Putra Malaysia is high. There is a significant positive relationship between the nutrition knowledge and eating habits of a Bachelor of Home Science in the Faculty of Education at Universiti Putra Malaysia. Economics

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