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THE FREQUENCY OF BREAKFAST CONSUMPTION BETWEEN MALES AND FEMALES AMONG SPORTS SCIENCE UNDERGRADUATES

Mohamad Hisyam Izzuddin Bin Mohamed Ishak

Razali Bin Mohammed Salleh

*Faculty of Sports Science and Recreation,
Universiti Teknologi MARA Shah Alam, Selangor*

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Correspondents Author,

Mohamad Hisyam Izzuddin Mohamed Ishak

mohamadhisyamizzuddin@gmail.com

Faculty of Sport Science and Recreation,

Universiti Teknologi MARA Shah Alam

Selangor.

The Frequency of Breakfast Consumption between Males and Females among Sports Science Undergraduates

Mohamad Hisyam Izzuddin Bin Mohamed Ishak., & Razali Bin Mohammed Salleh

*Faculty of Sports Science and Recreation,
Universiti Teknologi MARA, Shah Alam, Selangor.*

Abstract

Human health depends on regular practice of healthy lifestyles which included a balanced diet that consist of a variety of important nutrients in the food. Creating a balanced diet and regular eating habits were the basis of the positive changes in our eating habits and it was also as the source of our recovery. Breakfast had been the most important meal of the day. However, there were still evidences of individuals who skip breakfast. The purpose of this study was to determine the frequency of breakfast consumption between male and female among sports science undergraduates. A total of 50 undergraduates participated in this study. Result of the study showed 66% of sports science undergraduates took breakfast while 34% of them were classified as breakfast skippers. Male were frequently taking breakfast (72%) as compared to female students (60%) ($p < .05$). In conclusion, sports science study promotes awareness on healthy lifestyle apart from sports and breakfast was one of the factors. Extra work to spread the health awareness to the people could be significant for illuminating a better lifestyle.

Keywords: Breakfast, physical activity, time management, university students.

Introduction

Human health depends on a balanced diet including a variety of important nutrients in the food (Brittain, Kremen, Garber, & Klein, 2014). Creating a balanced diet and regular eating was the basis of the positive changes in our eating habits and it was also the basis of our recovery. Unhealthy eating habit increased the inherent risk of metabolic disorder and disease which most common of all was obesity (Nurul-Fadhilah, Teo, Huybrechts, & Foo, 2013).

Breakfast was the most important meal of the day (Arora, Nazar, Gupta, Perry, Reddy, & Stigler, 2012; Dwyer, 2014; Rampersaud, Pereira, Girard, Adams, & Metz, 2005). Breakfast was defined as the first meal of the day to break the fast after a long sleep and taken within 2 to 3 hours after waking. Breakfast consisted of a food or beverage from one of the food groups, and can be eaten at any locations (O'neil, Byrd-Bredbenner, Hayes, Jana, Klinger, & Stephenson-Martin, 2014). Eating breakfast had many benefits and had been proven in previous studies. The benefit was related to cognitive performance (Hoyland, Dye, & Lawton, 2009; Widenhorn-Müller, Hille, Klenk, & Weiland, 2008) and a healthy lifestyle (Widenhorn-Müller et al., 2008). The benefits of healthy lifestyles were associated with nutrient intake, nutritional quality and weight management (Dubois, Girard, Kent, Farmer, & Tatone-Tokuda, 2009).

However, breakfast skipping was defined as an individual who skip breakfast for 3 or more days per week (Deshmukh-Taskar, Nicklas, Radcliffe, O'neil, & Liu, 2012; Nicklas, Reger, Myers, & O'neil, 2000).

Thus, there was an evidence showing people tend to skip breakfast due to certain factors (Moy, Johari, Ismail, Mahad, Tie, & Wan Ismail, 2009). Some of the factors were age, race, accommodation, student's life, type of food choice, sociodemographic and skipping dinner (Dubois et al., 2009; Moy et al., 2009).

Poor dietary habits were a public health problem, especially among young adults who were experiencing the transition to university life (Nelson, Story, Larson, Neumark-Sztainer, & Lytle, 2008). Adults were susceptible to pressure and often a lack of time (Sajwani, Shoukat, Raza, Shiekh, Rashid, Siddique et al., 2009). These factors pose barriers to a healthy life, such as unhealthy eating habits and drug abuse (Nelson et al., 2008). Although undergraduates' behavior will not remain permanent, but there was a tendency that undergraduates still carry on the same negative habits for the most part consistent in the lives of more older adults (Silliman, Rodas-Fortier, & Neyman, 2004). So, the pressure in the university life and the burden of works and assignment becomes one of the negative factors that affect their diet and unhealthy lifestyle (Mikolajczyk, El Ansari, & Maxwell, 2009).

Taking breakfast was considered very important meal to supply us with sufficient energy to kick start our day. Previous statistic showed about 24.6% of children skipped breakfast at least 3 days per week. Besides, more girls (26.4%) skipped breakfast when compared with boys (22.05%) (Keski-Rahkonen, Kaprio, Rissanen, Virkkunen, & Rose, 2003). Considering the differences in male and female on different age group would be a valuable finding investigating the frequency of taking breakfast. This data showed us that the issues of breakfast skipping was not a matter that should be taken for granted. Since university undergraduates were the representative to the promotion of healthy eating lifestyles among a large young adult population, then it was suitable to bring the population into spotlight for this study (Sakamaki, Toyama, Amamoto, Liu, & Shinfuku, 2005). Plus, there were only few studies on university undergraduates which focusing on factors related to time management among university.

Therefore, the purpose of this study was to determine the frequency of breakfast consumption between male and female among Sports Science undergraduates.

Method

This study used a cross-sectional design. This was due to determine the relationship between two or more variables of the groups through questionnaires. A total of 50 full time undergraduates from Bachelor of Sports Science courses were the respondents of this study. The sample size was computed using the G-Power (version 3.1) software. This software was used due to the convincing method because of its output that uses not only by type of statistical analysis, but also with graphs (Faul, Erdfelder, Buchner, & Lang, 2009).

A 14-items of Student Breakfast Attitude Questionnaire was used for this study. This questionnaire was adopted from Ohio Department of Education and Tapper, Murphy, Lynch, Clark, Moore, and Moore (2008) study. This questionnaire was designed to determine the frequency of breakfast habits among students. This question had five response options, "never", "1-2 times in a week", "3-4 times in a week", "5-6 times in a week" and "every day".

The 14-item scale showed moderate to high levels of constructed validity, internal reliability and test-retest reliability (0.38, 0.85 and 0.66) respectively. Preliminary analysis also suggested good external validity. It was therefore deemed suitable for use in the evaluation.

In this study, the descriptive analysis used was mean, standard deviation and frequency. It was used to describe the demographic data of participants and the variables. For inferential analysis, Independent t-test was used to compare between genders.

Result

Physical Characteristic Profile of The Respondents

Table 1 showed the demographic characteristics of the respondents for this study. A total of 50 respondents (male = 25, female = 25) who answered and completed the questionnaire in this study.

Table 1: Physical Characteristic of the Respondents

Characteristics	Minimum	Maximum	Mean	Std. Deviation
Age (Years)	20	25	22.94	2.53
Height (cm)	145.00	180.00	163.22	7.52
Weight (kg)	38.10	100.00	60.26	14.37
Semester	3	5	4.00	0.76
Year of Sport Involvement	1.00	13.00	8.54	5.00

Note: n = 50

The mean age of the respondents was (mean = 22.94, SD = 2.53) years old. The oldest respondent in this study was 25 and the youngest was 20. The mean weight of the respondents was (mean = 60.26, SD = 14.37) and the mean height was (mean = 163.22, SD = 7.52). The mean year of sport involvement was (mean = 8.54, SD = 5.00) years. All the respondents in this study were taken from semester three to semester five.

Breakfast Consumptions Among Respondents

Table 5 showed the frequency table which aim to determine the breakfast consumption between Sports Science undergraduates. The result showed that the undergraduates who consumed breakfast (f = 33) was higher than the breakfast skipper (f = 17).

Table 2: Breakfast Consumption among Respondents

Sex	Breakfast Consumption	Frequency	Percent
Male	Breakfast eater (BE)	18	72.0
	Breakfast skipper (BS)	7	28.0
Female	Breakfast eater (BE)	15	60.0
	Breakfast skipper (BS)	10	40.0
Total	Breakfast eater (BE)	33	66.0
	Breakfast skipper (BS)	17	34.0

Differences of Breakfast Habits by Sex

An independent t-test was carrying out to determine any groups related differences on the breakfast habits between gender As presented on Table 6, there was a significant different in breakfast habits between gender, $t(48) = 2.616, p = .012$. Based on Table 5, breakfast eater was higher in male (75%) as compared to female (60%).

Table 1: Independent t-test Result

	Gender			95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Lower	Upper
Breakfast Habits	2.616	48	.012	.750	5.730

Discussion

In this study, the frequency of breakfast eater among Sports Science undergraduates were higher compared to breakfast skipper. This survey showed 66% of Sports Science undergraduates took breakfast while 34% of them were classified as breakfast skippers. This showed a good feedback that the undergraduates do practice a good breakfast habits. Besides, this could also be related to physical daily learning schedule among Sports Science undergraduates need more energy to cope with fatigue after training and competitions. The present study showed similarities with previous study (Sakamaki et al., 2005).

Sports Science was the study of how the healthy human body works during exercise, and how sport and physical activity promote health, physically, mentally and socially. The study of Sport Science incorporated many other academic studies and areas, like physiology, psychology, anatomy, and nutrition. So, these respondents understood the important of taking breakfast as healthy lifestyles.

The result from table 2 showed a significant different in breakfast habits between gender, $t(48) = 2.616, p = .012$. The result from the frequency of breakfast consumption shown a difference percentage between breakfast eater and skipper which more undergraduates were breakfast eater than skipper. This align with the result to determine the different on breakfast habits between gender. When comparing the percentage of breakfast eater between gender, about 72% were males and 60% were females. It showed that more males undergraduates eating breakfast in the morning and had a better breakfast habits compared to female undergraduates. Additionally, respondents were not provided with a definition of breakfast; hence, male and female respondents may have had different opinions of what constitutes breakfast, and different factors may influence this association in males and females. Perhaps breakfast skipping was high in females may be related to unhealthy behaviors (Keski-Rahkonen et al., 2003). It was also possible that mood difficulties or depression could play a role, as appetite loss and lethargy were both associated with depression (Poli, Sbrana, Marcheschi, & Masi, 2003).

However, this study was contradicted with the study of Moy et al. (2009) that percentage of breakfast skipper were higher in males. The differences were due to the different in the field of study in the university that the student was studying. Despite that, there was still study which supported that males eat breakfast more frequently than females (Siega-Riz, Popkin, & Carson, 1998). The reason was that female individuals seem to be more concerned about their body shape and fitness and were therefore more prone to go on self-administered weight-loss diets. At their age, these students often think a lot about how their bodies look and compared their bodies with others. A positive body image is an important part of healthy self-esteem and feel positively about their body.

Another factor of male having better breakfast habits was the involvement in sports. The respondents of this study were from Sports Science undergraduates and their basic requirement to enroll into the course was that the student must involve in sports and were tested in their physical fitness.

In this study, male undergraduates were involved in sports competitively with mix level from university level to National level's player. These undergraduates played for organized competitive sport sponsored by the educational institution. The sports demand required strength, skill, and endurance to perform well in game. Thus, physical health was key to an active lifestyle and need special care to get enough of the calories, vitamins, and other nutrients that provided energy. The concern on undergraduates' dietary intake to supply the demand of the body makes these students take breakfast regularly. Perhaps the respondents in this study were also practicing a good dietary intake daily but no data was sufficient to support the statement.

Conclusion

As a conclusion, the undergraduates' intake on breakfast seems to be on a positive side. The significance of training elevating general breakfast eating to youngsters, teenagers, university students and grown-ups have been expressed as imperative focuses for solid ways of life. The present findings add weight to the arguments that university undergraduates ought to be the medium that shape these healthy lifestyle advancement procedures which may warrant assist further investigation and may demonstrate important variables aiming to increase lifestyle.

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