

HEALTHY EATING AND PHYSICAL ACTIVITY AMONG FEMALE STUDENTS OF IIUM Kuantan POST WEIGHT-LOSS PROGRAMME PARTICIPATION

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ABSTRACT

Introduction: The purpose of this qualitative study is to explore the motivations and barriers that affect female students to maintain their healthy lifestyle practices. **Methods:** Female students of IIUM Kuantan who participated in The Biggest Winner weight-loss program were interviewed separately to explore their opinion, experience and perceptions regarding healthy lifestyle. In total, there are 11 subjects who completed the interview sessions. This study acknowledged the factors that influences them to either maintain or discontinue their recommended dietary intake and physical activity. **Results:** This study showed that there are various factors that significantly influence a students' lifestyle such as hectic schedule of classes, peers influence and lack of healthy food availability. These factors were further divided into three themes: Individual, social and environmental factors. Each theme represents both motivational factors or barriers for the participants towards healthy lifestyle. Most of the factors mentioned by the participants are recognized as barriers for them to engage in healthy lifestyle activities. **Conclusion:** The conceptual framework developed from this study indicates that future intervention to educate the student's population regarding better lifestyle should consider the individual, social and environmental factors in order to yield an effective intervention outcome.

Keywords: Obesity, Diet, Health, Exercise, Eating habits

INTRODUCTION

Dieting is always assumed to be the main key in gaining ideal body weight. However, patients and health professionals define dieting differently. But to most, particularly public people, dieting is defined as a behaviour with the aim to achieve weight loss which often for a certain period of time, involve changes in eating pattern and are done intentionally by the individual (Schur, Sanders and Steiner, 2000). This dieting habit are much often practiced by young women regardless of weight, age, race and ethnicity that may give an impact to their nutritional behaviour.

According to Kwan et al. (2012), the decline of physical activity was obvious throughout adolescent phase where it involves transition from young adult to early adulthood. The author claimed that an abrupt decline in physical activity commonly occurs at the time of enrolling to a university. Bray and Born (2004) informed that about 30% of individuals recognized as active students in high school turn out to be insufficiently active upon entering the campus life.

University students are said to have their own circumstances in maintaining good nutrition and consistent physical activity level. For the students, to consistently practice a balanced diet and exercise is very challenging due to limited healthy food choices in the cafeteria, unexpected meal schedules, tight academic timetable and frequent stress. These challenges will be partly responsible to either overconsumption of food, inadequate food intake and lack of physical activity.

A cross-sectional study involving 50 subjects who enrolled into a commercial weight loss programme in Ghana revealed that about 66% of their subjects had participated in a weight loss programme in an attempt to lose weight. This study yielded that only 11.5% of the subjects followed the recommendation given throughout the programme whereas another 88.5% neglected the programme even before they achieved their desired weight goals (Addo, Addo and Ohemeng, 2016). McEvedy et al. (2017) also suggests that the participants of weight loss programme find dietary changes to be unsustainable. This further lead to high attrition rate among the participants. Thus, instead of focusing on the methods of initiating the weight-loss, the motivation and barriers of dieting practice and physical activity particularly among the students who participated in weight-loss programmes are very important to be identified.

Hence, this study had been conducted with the aim to assess the aspects particularly the motivations and barriers that contribute towards the maintenance of healthy eating and physical activities among the female students.

METHODS

Study Area

This study was conducted in IIUM Kuantan Campus. All participants involved in this study was residents of Mahallah Fatimah az- Zahra (MFZ), a student resident hostel on campus. The method used for data collection was face-to-face interview in which the location for every interview session varied depending on the participant's preferences. The

location selected by the participants mostly were at student's common room, as it provided more privacy and convenience for the participants. Some other locations were at their own room, mahallah's cafeteria and recreational room.

Subjects

This study involved female students who had participated in 'The Biggest Winner' (TBW), a weight-loss programme organized by the Mahallah Representative Committees 2018/2019 in IIUM Kuantan on 13th March - 1st May 2019. All participants were reported to have BMI more than 25 which indicates overweight and obese.

Sample Size Calculation

Sample size is determined based on data saturation principle where new respondents are not recruited once no new data or theme emerges in the interviews. Sampling were done to the point at which redundancy of information is achieved. A total of (11) participants completed the interview sessions in which the data saturation point had been reached.

The process of interview

Interviews were semi-structured in order to create a friendly rapport with participants and leave sufficient space for the themes to emerge. All interviews were conducted in Malay language which is the mother tongue of the participants and interviewer.

Open-ended questions were used to explore the individual, societal, environmental, and university related factors that affect their motivations and barriers regarding healthy eating habits, physical activities and other different factors. Furthermore, brief field notes were prepared during the interviews. Each interview session took about 30- 50 minutes.

Data Analysis

Thematic analysis method was used to examine and analyze the data in a systematic manner according to the purpose of this study. All the information gathered through the interviews (audio-recorded and field notes) were transcribed verbatim and entered into a word document. What was said by the participants of this study were typed word by word. The transcript was read several times before the analysis began.

In inductive thematic approach, the content of data was used to generate codes and themes. The analysis was conducted manually by the researcher. Open codes were generated and extracted through repeated readings. After all the initial coding of the interviews were performed, several codes were grouped under one related theme. In order to increase the validity of the coding system, both researcher and supervisor independently code few transcripts, then establish consensus after discussion. The main theme and sub-theme were extracted once the validity of the data is confirmed by the supervisor.

RESULTS

Participant's characteristics

Participants were from various field and different year of study. These various characteristics of the participants contribute in more understanding of their experiences and opinions in relation to their behaviors and healthy lifestyle. Through self-assessed weight status, most of the participants have the thought that they owned non-ideal body image and unfavourable Body Mass Index (BMI) either overweight or obese. Table 1 sums up the characteristics of the sample.

The most significant quotes by the participants were reported to represent each theme and sub-theme. Basic information of the participants was incorporated by using an ID for the quotes: e.g., Year and field of study: 2nd year, Dietetics

Table 1. The basic characteristics of the participants

Characteristics	Responses	N
Academic year of Study	1 st year	0
	2 nd year	3
	3 rd year	6
	Final year	2
Field of Study	Mathematical Sciences	3
	Chemistry	2
	Pharmacy	2
	Applied Plant Sciences	1
	Radiography	1
	Dietetics	1
	Biomedical Sciences	1
Daily expenditure (Food)	≤ RM 5.00	0
	RM 5.10 – RM 9.90	9
	≥ RM 10.00	2

The motivations and barriers towards healthy lifestyle (healthy eating and physical activities)

A model by Deliens et al. (2014) was adapted, then used to develop the following main levels for the analysis: Individual, social, environmental factors. From the thematic analysis conducted, the data revealed that these are three major factors determining the motivations and barriers towards healthy eating and engaging in physical activities of the participants either in the university or at home. Motivations and barriers to healthy lifestyle were identified at three levels of socio-ecological model. Themes are displayed in order of prominence by socio-ecological level. The themes include individual factors, societal factors and environmental factors (Figure 1).

Each of the factors are further divided into sub-factors. This data exhibited that the vast majority of students confront difficulties towards healthy eating due to developed eating habits, food prices, peer influences and physical environment. Whereas consistent physical activities became hard for them because lack of skills in time management and unfavourable facilities. More barriers than motivation factors were reported. However, some barriers were also perceived as motivational factors by some participants.

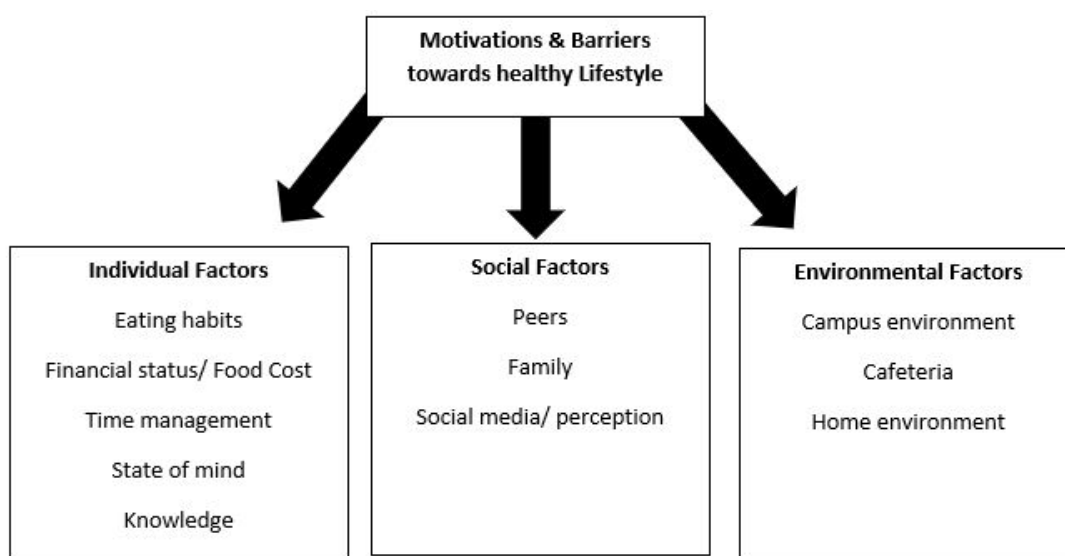


Figure 1. Motivations and barriers towards healthy lifestyle

Individual factors

Eating habits

The transition from living at home to university life was considered as challenges that affect eating behaviour of an individual. Majority of the participants noted that their food consumption was influenced by habit, which they reported has become less healthy since moving to university. A strong habitual pattern was reported with regard to snacking. This habit was commonly considered as unhealthy eating habits mentioned by several participants. Most of them mentioned having problem with snacking, especially during study or doing assignments.

"In order to complete the assignments or study, I usually sleep late up to 4.00 am. The earliest would be at 2.00 am or 1.30 am. During that time, when I feel hungry... I normally eat some chips." (3rd year, Biomedical Sciences)

Time Management: Academic Activities

Time tend to be very precious issue when talking about student's health practices. Almost all participants said that they were busy and experience time constraints due to the pack academic schedule. Participants who were in the third year of their studies mentioned a lot about academic workload (ex: Assignments, Quiz, Tutorial) which act as barriers to maintain healthy lifestyle and stay active.

"For me the schedule is one of the problems (to engage with exercises). During previous semester, I have some other commitments such as facilitator programme, meeting and assignments. To certain extent, it does interrupt my will to jog during evening. In addition, I usually have class in the morning (unable to jog at morning)." (3rd year, Plant Sciences)

Social factors

Peer Influence

Young adults in the university are often influenced by their peers for many habits which can sometimes lead to unhealthy eating. Close friends, classmates and particularly roommates were reported to be consistently influential in the participants choice of dietary intake mainly in the campus. Most of the participants agreed that their friends did contribute to the high frequency of eating out. Some participant illustrated this factor in a discussion:

"My roommates and I regularly go to McD, sometimes Tomyum Restaurant. Basically, when we go out together (from the campus), we would go to 1-2 places to eat. As we all know, Kuantan have so many restaurants." (3rd year, Biomedical Sciences)

Environmental factors

Cafeteria

Food availability in the campus were viewed by the participants as one of the key factors influencing their consumption. Almost all participants agreed that there was lack of availability of healthy food around them which make the diet maintenance to be difficult. They thought that the food served in cafeteria highly influenced their eating habits:

"In my opinion, the dishes provided during lunch hour (at the cafeteria) is too oily such as curry and even the vegetable was fried. Raw vegetables are rarely served. When we are dieting, of course we look for something grilled instead of fried, but there is none at the cafe. All the fish, chicken and all are fried, only the colour was different." (2nd year, Dietetics)

DISCUSSION

This study explored a range of factors that may influence the motivation and factors perceived as barriers towards the female students in IIUM Kuantan. The data analysis revealed a broad range of positive and negative influence towards healthy lifestyle of the students which possibly led to either strengthen or reduce health status at young age.

Regarding eating habits, this study proposed that majority of the students are likely to skip meals typically breakfast. They often associated healthy eating with skipping meals and eating less amount of food daily rather than with nutritional quality of their diet as a whole. This definitely will have an impact on which foods to be chosen by the participants. It is well understood that energy balance plays a big role in losing weight, but skipping meals is one of the unhealthy means to lose weight and may expose to the risk of having type 2 diabetes over time (Brown et al., 2016; Carew et al., 2020). Diet quality and diversity must not be compromised in any weight loss program.

The information acquired through this study suggested that eating habit and dietary intake for most of the students was notably influenced by academic activities, especially exam pressure. The academic burden influenced their food choices (choosing unhealthy diet) and restrict their time to participate in physical activities. This result is also aligned with other studies that shows lack of time due to studies, lack of healthy meals at the cafeterias, and high prices of healthy foods were among the barriers to healthy eating (Hilger et al., 2017; Kabir et al., 2018).

However, life in university is mainly about time management. University students have the freedom to do as they please such as deciding on what and how much they eat and when to work out. The pattern of eating habits needs to be adjusted to their academic schedule and submission of workload. In other means, they need to figure out how to manage their time. Improper time management will lead to negative correlation towards both eating habits and level of physical activities.

Social support exists in shaping healthy eating and physical activity behavior. Family and peers healthy practices as well as support and encouragement are among the key enablers (Munt et al., 2017). Pertaining to social factors, this study observed that participants who have a higher frequency of physical activity believe that social pressure helps them to stay healthy. Support from peers was found to be one of the important stimuli for the students to be active in physical activities as in their campus environment. Yet, some of them emphasize that their friends may be the one who contribute to unhealthy diet typically when staying in university.

Many participants stated that they did not have resources to practice a healthy diet due to limited choices and restricted access to healthy food. This study shows that students were significantly influenced by the availability of food particularly those food served in the cafeteria. Majority of the students complained on the lack of healthy food's availability around the campus. A particular focus on policies including regulation on unhealthy food sold in Mahallah and providing healthier options in its cafeteria should be considered.

CONCLUSION

The factors in which perceived as barriers at individual level are greatly mentioned by the participants. Factors such as established eating habits and lack of time management skills contribute the most towards their lifestyle. Along with these individual factors, the surrounding which include their peers (social factors) and availability of food in cafeteria (environmental factors) were also found to influence their physical activity level and eating behaviour. Thus, intervention measures need to consider the individual, social and environmental factors to achieve the aim of improving the lifestyle of the students.

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