



Original Article

Emergence of FAD Diets and Obesity-Related Perceptions and Practices Among University Students

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ABSTRACT

The prevalence of obesity is increasing day by day and is becoming a serious issue worldwide. Obesity leads to different chronic diseases such as diabetes, cardio-vascular diseases, hypertension etc. In attempts to lose weight faster, people try different diets and Fad diets are a part of these diets. Ketogenic diet, Atkins diet, vegan diet, liquid diet are some examples of these diets. **Objective:** To assess the emergence of fad diets and obesity related perceptions and practices among university students. **Method:** A cross-sectional study design with a sample size of 100 students were randomly selected from 4 different universities; University of Lahore, Lahore University of Management Sciences (LUMS), Forman Christian College and Superior University. Data was collected from the participants through a questionnaire. **Results:** Questions regarding knowledge and perceptions about obesity and fad diets were asked to which majority of the participants answered that they knew about BMI and it being a major indicator of obesity (73%). When they were asked about knowledge of obesity related to diet and sleep 88% agreed to it being interlinked while 19% disagreed. Upon asking what the respondents thought was the main cause of weight gain 14% replied junk food, 22% replied to lack of exercise, 27% said unhealthy eating practices but majority 35% outlined lack of exercise combined with unhealthy eating practices as the foremost cause of increasing rates of obesity. When asked if the participants followed any FAD diets they answered with different diets; 12 respondents followed Atkins, 20 followed keto, 7 followed vegans, 4 followed liquid diet, and 32 followed other FAD diets while 32 participants didn't follow any FAD diet. The correlation between FAD diets and their effectiveness was determined and the results showed a significant correlation ($p < 0.05$). Most of the participants were females (57 females and 43 males) and through the present study it was evaluated that mostly females followed such FAD diets as compared to males. **Conclusions:** FAD diets have been in trend from a long time and people mainly follow it to lose weight quickly and to get into a certain body shape. However, restricting specific food groups leads to drawback that cause health issues. Following a FAD diet is short-term solution to obesity that can be reversed easily by slipping back into old eating patterns. The long-term solution to obesity is to eat a healthy balanced diet and to be physically active.

INTRODUCTION

Obesity is an important public health problem that has reached epidemic levels in the recent years. These increased levels of obesity are affecting both developed and developing countries [1]. Body mass index (BMI) above 30 kg/m² is one of the ways to define obesity. It is a major risk factor for the increasing rate of chronic diseases like cardiovascular diseases, diabetes, hypertension, fatty liver disorder, kidney disorders and different types of cancers [2]. According to the estimates by WHO, more than 1.9

billion adults aged 18 years and older are overweight, and of those, over 650 million adults are obese [3]. In 2016, 39% men and 40% of women aged 18 and over, accounting for nearly 2 billion adults, were overweight, and 11% of men and 15% of women, more than half a billion, were obese worldwide [4]. In most of the countries being slim is considered as being beautiful, attractive, healthy, self-discipline while on the other hand being obese is considered as being unhealthy, ugly, also with moral

failings like lack of self-control, being lazy. Individuals living with obesity are stigmatized and face discrimination on the base of their weight in many places [5]. All these factors were considered as the basis for the increasing awareness about obesity. Governments increased awareness about having a healthy lifestyle; health guidelines were also published by WHO discussing healthy ways to live a healthy life. Diet and physical inactivity play an important role as a factor of increasing obesity around the world. According to surveys lifestyle, dietary behavior and environmental factors are the major factors that lead to increasing obesity rates [6]. In order to get rid of the excess weight as quickly as possible people try different exercise regimes and different diets that are published in magazines spelled out as 'FAD diets' [7]. FAD diets are famous among people because assure speedy results, are very easy to accomplish and represent very exceptional results. Individuals have consistently been fixated on losing weight tricks. They will try the most recent prevailing FAD diets that make no sense, bio chemistry, and even natural appetite. FAD diets encourage rapid weight loss that is easy to follow and don't take much time to show results [8]. FAD diets show dramatic weight loss in short time period. 'FAD' is not a scientific word contrarily 'healthy' is also not a scientific word. Most FAD diets are normally based on no or little research that can lead to serious health problems [9]. Many factors cause to follow FAD diets, the effect of peer pressure and effect of media on body image and self-esteem. There are different FAD diets which includes, low carbohydrates (less than 100 g/day), high carbohydrate diet, high fiber diet, high fat diet, low fat diet, high protein diet, detox diet, aktins diet, ornish diet, ketogenic diet, pritikin diet and Mediterranean diet [10]. FAD diets have yielded gigantic positive outcomes in weight reduction and cardiovascular risk prevention, the investigations announced demise in long time intercessions and the outcomes and some of them show secondary effects as well. Randomized controlled preliminaries have fundamentally announced weight reduction in examination with the well-known FAD diets; in any case, enduring on similar eating patterns has likewise revealed kidney issues, ketosis, and other metabolic related issues [11]. Despite the increasing rates of obesity, with all the efforts and awareness we now have a better knowledge about the pathophysiology of obesity and how it leads to other diseases like diabetes, cardio-vascular diseases and hypertension [12]. Some people believe that obesity is linked with environment, lifestyle and gene susceptibility. It has been reported that in 95% of the obesity cases the underlying cause is nutritional, exogenous or primary, while it is endogenous, monoergic or secondary cause in 5% of the cases [13]. Obesity is mainly the excess

deposition of fat in adipose tissues due to high intake of nutrients and less expenditure of energy. Depending upon the distribution of fat in the body obesity is classified into central with a predominance of fatty tissue in the intra-abdominal region, or peripheral type, with fatty accumulation mainly in the femoro-gluteal region. This differs according to race, genetics, gender and lifestyle. The fat in the body is distributed into visceral (20%) and adipose tissue (80%). Imbalance between intake of energy and expenditure of energy, eating too much sugary food and fatty food can increase the amount of fat deposition in adipose tissue causing obesity and other related diseases [14]. Mi-Hyun Kim., et al 2015 conducted a study to know how FAD diet works in weight loss and to know the importance of nutrition education. Questionnaire method was used in this study with 710 participants students who tried to lose weight were 52.8% and 78.6% for males and females respectively whereas students who indicate that nutrition education is needed for healthy dieting was 39.1% and 45.4% for males and females respectively [15]. In 2017 a study was conducted by Mi-Hyun Kim and Jee-Young Yeon in Korea to check the status of FAD diet and need of nutrition education in students, 611 students were selected from universities of 2 different provinces of Korea and were divided into 4 groups according to the difference between their current and desired weight. FAD diet status was checked by a survey and the results showed that self-weight overestimation was higher in females and trend of weight loss increases in both male and female where as both males and females have very less knowledge of nutrition [16]. Angela A.A et al., 2020 conducted a study to determine the dietary and obesity related practices among university students at faculty of health care sciences, Eastern University, Sri Lanka. Samples of 384 students were used to collect data by the ways of self-administered questionnaire. This study showed that nearly half of the participants had excess body weight associated with abdominal obesity. Moreover, unhealthy practices were observed in males with high percentages of obesity. Males consumed more unhealthy foods such as red meat, fast food which leads to obesity [17]. The purpose of selecting this topic is to determine the understanding of students and their behavior towards FAD diets. The main objective of our study is to understand the emergence of FAD diets and obesity-related practices and perceptions among university students.

METHODS

A Cross-sectional study design was opted to elucidate data about emergence of FAD diets among students of 4 different universities, i.e., University of Lahore, Lahore University of management sciences, Forman Christian

College and Superior University. A total of 100 students; 25 from each institute recruited randomly to be part of study. Non-probability convenient sampling technique was used. University students of different departments of random age. University students other than nutrition students were participants of study. Data was analyzed through latest version of SPSS.

RESULTS

100 students were studied for this cross-sectional study. It was conducted in four different universities of Pakistan, The University of Lahore, LUMS, Forman Christian College and Superior University Lahore. 25 students from each university in which 43 males and 57 females participated in the study(Figure 1).

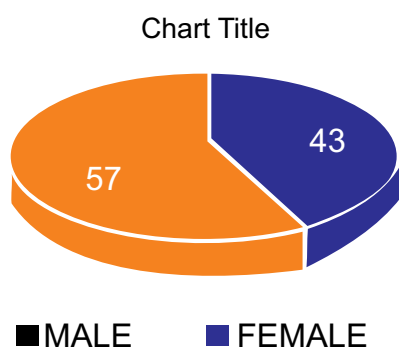


Figure 1: Gender of Participants

Data was randomly collected with minimum age of 17 and maximum of 29 while mean age was 21 years, following graph shows the frequency of different ages included in this study(Figure 2).

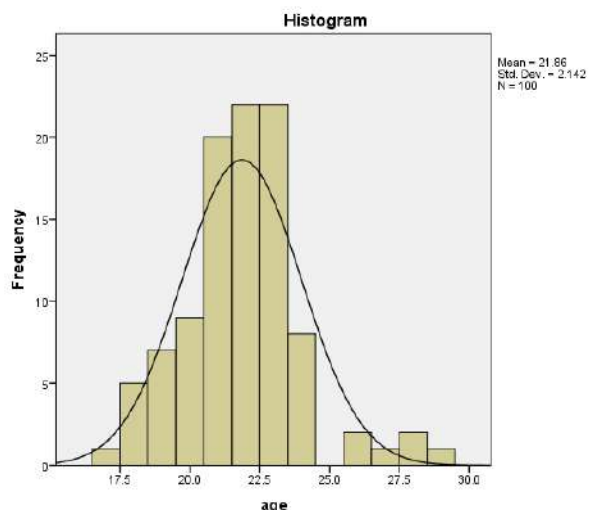


Figure 2: Age of Participants

Majority of the participants reported that BMI is an important indicator of evaluating the level of obesity (73%) whereas only half of the sample size knew how to calculate BMI (52%). When respondents were asked of knowledge

about obesity related to diet and sleep, 88% agreed that obesity is interlinked with lifestyle and 19% disapproved the relation of obesity, sleep and psychosocial practices (Table 1).

Knowledge About Various Attributes	Frequency	
	Yes	No
FAD Diets	51	49
BMI as indicator of Obesity	73	27
BMI calculation	52	48
Obesity related to diet and lifestyle	88	12
Obesity related to sleep and psychosocial practices	81	19

Table 1: Knowledge about various attributes of participants

The participants from different universities were asked if they followed any FAD diet in response to which 12 participants answered that they followed Atkins diet, 20 participants answered keto diet, 7 participants followed vegan diet, 4 participants followed liquid diet, 25 of them followed other FAD diets while 32 participants didn't follow any FAD diets. After interpreting, the results showed that FAD diets were effective for 23 participants while for other 77 participants these FAD diets weren't effective at all. 26 of the participants were willing to recommend FAD diets to others whereas 74 of them were not willing to recommend these diets. Table 2 showed the correlation between effectiveness of FAD diet with if the respondents would recommend it to someone else. The results showed significant correlation ($p < 0.05$).

Fad effective	Would recommend		Tot	P-value
	Yes	No		
Yes	15	8	23	.000
No	11	66	77	
Total	26	74	100	

Table 2: FAD Diet Effectiveness

DISCUSSION

In this study, among 100 participants, more than 80% of the participants had an understanding of obesity link with lifestyle, sleep and psychosocial practices. Similarly, a cross-sectional survey conducted in UK by Hooper et al., 2018 found out that public awareness about cancer and obesity is low [18]. On assessing emergence of FAD diets among university students, 68% had followed FAD diets

whereas only 51% knew what FAD diets actually are/or means. This trend shows that FAD diet is an on-growing trend that some people are still vague about. In this study, we found out females are more likely to follow FAD diets than males. The participants who followed FAD diets felt weakness and other symptoms. After quitting FAD diets 27% regained the weight. Similarly, a study conducted in Korea among male and female collegians about FAD diet status by Kim MH et al., 2015 determined that ratio of following FAD diets among female students is higher than male students. The participants of that study experienced side effects in which most frequently experienced side effects were weakness and most of the participant's regained weight after quitting FAD diets. This study also determined the status of FAD diet of male and female students' results showed that 78.6% of females and 52.8% of males tried to lose weight by different types of FAD diets while in our study 68% of students had followed FAD diet to lose weight [19]. According to current study results 20% of students were following keto as FAD Diet, whereas in year 2021, Noah Garber conducted a study in Oakland University to evaluate the diet choices and reported that keto was the most popular diet among university students[20].

CONCLUSION

Mostly people do not know how harmful obesity can be for their body and overall health. As prevalence of obesity increases day by day the prevalence of chronic diseases is also increasing such as heart diseases, diabetes, hypertension etc. People are always looking for shortcuts to lose their excess weight, trying to follow different trends promising quick results. FAD diets is one of these trends promising immediate results however its effectiveness is still being questioned. The present study was conducted to determine the emergence of FAD diets and obesity related perceptions and practices among university students. It was evaluated that the prevalence of obesity was greater in females as compared to males. As supported by the results of present study mostly females followed FAD diets which were not that effective and had consequences. Mostly people could not follow FAD diet for more than a week. Awareness about FAD diets and their side effects should be increased so that people know that following such diets can affect their health negatively, and that there is so shortcut to lose weight without being physically active and following a healthy eating pattern.

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