

Comparative Study to Assess the Practices Regarding Fad Diets Among Medical and Non-Medical Students of Lahore

Saba Nadeem Dar¹, Aqsa Nadeem¹, Urooj Arshad¹, Sayyeda Aatika Ejaz¹, Hooria Akhter¹, Aqsa Waheed¹, and Arooba Naeem¹

ABSTRACT

Objectives: To compare the practices and assess the experiences regarding fad diets among medical and non-medical students

Methodology: A cross-sectional study was conducted on 378 students (189 from medical and 189 from non-medical institutions) from different universities of Lahore, through an online survey.

Results: Majority of the medical (47%) and non-medical (56%) students were satisfied with their weights. The majority of respondents did not follow fad diets. Among those who did, medical students were 17.5% and non-medical students were 21.69% but p-value (>0.05) showed insignificant difference between them. Both medical (24.87%) and non-medical (19.58%) students reported no changes in their weights resulting from the fad diets. However, the majority of medical (31.75%) and non-medical (21.6%) students also did not experience any side effects. A total of 25.93% medical and 28.04% non-medical students recommended these diets to others.

Conclusion: This study states that majority of the students of both medical and non-medical domains did not follow any fad diet, while those who tried fad diets, experienced few health consequences and therefore their majority will recommend it to others. This study demonstrates that there is no significant difference between medical and non-medical students in terms of practices and experiences regarding fad diets.

Keywords: fad diet; medical students; non-medical students

How to cite: Dar SN, Nadeem A, Arshad U, Ejaz SA, Hooria, Waheed A, Naeem A. Comparative study to assess the practices regarding fad diets among medical and non-medical students of Lahore. *Ann Jinnah Sindh Med Uni.* 2026; 12(1): 3-7. DOI 10.46663/ajsmu.v12i1.3-7

INTRODUCTION

Obesity is a rapidly growing global health issue and Pakistan is experiencing a similarly increasing trend¹. Obesity increases focus on dietary practices because social interactions influence body image and weight concerns in both genders. According to a study, female models feel social pressure of staying thin and are concerned about their body image². Another study found a relation between internet use and body perceptions. Young people pay considerable attention to their body shape, as social media often portrays slim and fit individuals as the ideal. Those who perceive themselves as overweight may experience feelings of

insecurity and find it difficult to feel accepted by others. As a result, many turn to various weight-loss methods, including fad diets, in an attempt to achieve their desired body image. To overcome this situation, many individuals adopt fad diets in the hope of achieving rapid weight loss without engaging in regular physical exercise³.

In the last two decades, interest in dieting has increased worldwide. According to a study, the number of internet searches on weight loss increased significantly between 2004 and 2018⁴. According to a study, 62% people were influenced by interpersonal interaction that led to adoption of fad diets, while 92% were influenced by the social media. In addition, 15% respondents felt that social norms influence unhealthy weight control behaviors^{5,6}.

Social media promotes many diets that claim to lose weight without any exercise; these diets are called Fad Diets. Fad diet is not a scientific term but a popular dietary pattern that is perceived as a magic bullet to lose weight. Characteristics of Fad Diets can be easily differentiated from a healthy diet. Its nutritional

1. Department of Nutrition and Dietetics, University of Management and Technology, Lahore, Pakistan

Correspondence: Dr. Saba Nadeem Dar, Assistant Professor, Department of Nutrition and Dietetics, University of Management and Technology, Lahore, Pakistan

Email: saba.dar@umt.edu.pk

Submitted: Aug. 28, 2024

Revised: June 23, 2026

Accepted: June 24, 2026

adequacy is questionable and it lacks any scientific evidence to support its claims. Some food groups are even eliminated in these diets and these diets are for short term satisfaction rather than long term results⁷.

Fad diets claim to deliver unrealistic goals like weight loss in a short period of time⁸. It is a collective term which includes different diets like Ketogenic diet, intermittent fasting, Atkins (low carbohydrate diet), Liquid diet, Egg diet and Banana diet etc. These diets claim to help in weight loss and improve your body shape in the short term. Some diets can improve your health to some extent but are nutritionally inadequate due to elimination of one or more food groups or dominant consumption of a single food. There are also some concerns of co-morbidities. Some side effects that are associated with these dieting patterns are decreased calcium balance and urine pH, feeling faint, and heart beat alterations etc⁷.

One study estimated that 30% of the obese population did not follow any diet programme⁹. The rest of the respondents followed different fad diets including vegan and keto diets to achieve a certain body image.

Among those who followed fad diets, a majority were females, as women are more conscious about their body weight and body shape compared to males. Having a restricted diet and not eating balanced meals definitely causes nutrients deficiencies essential for various body systems. These diets are a short-term solution to obesity and when you stop the diet, the weight is easily restored.

Previous studies did not evaluate differences in practices between medical and non-medical students. However, medical students are typically expected to possess a higher level of awareness regarding the body's nutritional and health needs, in view of their medical training and their future responsibilities as healthcare professionals. To cover this research gap, a survey was performed on 378 participants out of whom half were medical students. This study compares the practices and experiences of medical and non-medical students regarding fad diets.

METHODOLOGY

ERC/IRB Approval: This study was conducted after approval of Research Ethics and Support Committee (RESC) and office of ORIC from University of Management and Technology, Lahore, Pakistan, 2023 with Ref No. RE 084-2023.

A comparative cross sectional study was conducted by the Department of Nutrition and Dietetics at the School of Health and Sciences, University of Management and Technology, Lahore to analyze the practices and experiences regarding fad diets among medical and

non-medical students. The study was conducted from April 6, 2023 to June 20, 2023.

Convenience sampling technique was used for this study which included both male and female medical and non-medical students between the ages of 18 and 26 years belonging to universities in Lahore. Those having co morbidities (diabetes, hypertension, heart diseases, respiratory diseases, joint diseases, and mental health issues) were excluded.

Sample size was 378, calculated by Raosoft (online calculator). Data was collected through online survey, which comprised both close- and open-ended questions. Data analysis was done statistically by using chi-square test on SPSS version 23.

Participant's data were used with their permission in this study, however, their identity will remain confidential.

RESULTS

Table 4.1: Demographics

Demographics	Frequency (%)
Gender	
Male	125 (33.1%)
Female	253 (66.9%)
Marital status	
Single	342 (90.5%)
Married	35 (9.3%)
Divorced	1 (0.3%)
Age	
18-20	64 (16.9%)
21-23	166 (43.9%)
24-26	148 (39.2%)

As Table 4.1 shows, 66.9% participants were female. As many as 90.5% were single, 9.3% married and 0.3% divorced participants. Mean age range for the study was 21-23.

Total sample was divided into two categories. Among them 50% were medical students and 50% were non-medical students.

Table 4.2: Have you ever tried a fad diet?

Degree Program	Medical Degree	Non-medical Degree
No (you are finished with the survey)		
n (%)	156 (82.5%)	148 (78.3%)
Yes (continue with the survey)		
n (%)	33 (17.5%)	41 (21.6%)

p-value = .300

Chi-Square Tests

The majority of the medical (82.5%) and non-medical (78.31%) students had not tried any fad diets but among those who had tried, no significant difference was found between medical and non-medical students as P-value was 0.300 .

Table 4.3: What was the result of the longest fad diet you have tried?

Degree Program	Medical Degree	Non-medical Degree
n (%)	102 (54%)	106 (56%)
Lost weight and kept it off		
n (%)	22 (11.6%)	23 (12.2%)
Lost weight, but gained it back		
n (%)	18 (9.5%)	23 (12.2%)
No change		
n (%)	47 (24.9%)	37 (19.6%)

p-value = .594

The p-value of 0.594 as shown in Table 4.3 indicates insignificant difference between both groups. While among those who followed fad diets, the majority from both the groups reported no change in their weights.

Table 4.4: Did you experience any side effects? If so, please check which ones.

Degree Program	Medical Degree	Non-medical Degree
n (%)	101 (53.4%)	101 (53.4%)
Diarrhea		
n (%)	3 (1.6%)	4 (2.1%)
Heart Problems		
n (%)	2 (1.1%)	6 (3.2%)
Irritability		
n (%)	6 (3.2%)	4 (2.1%)
Joints Problems		
n (%)	3 (1.6%)	10 (5.3%)
None		
n (%)	60 (31.7%)	41 (21.7%)
Other		
n (%)	10 (5.3%)	9 (4.8%)
Vomiting		
n (%)	4 (2.1%)	14 (2.1%)

p-value = .030

P-value is significant (0.030) in table 4.4. Majority of both domains experienced no side effects. As compared to non-medical students (21.7%), more medical students (31.7%) reported no side effects.

Table 4.5: Would you recommend a fad diet or weight loss programme to somebody trying to lose weight?

Degree Program	Medical Degree	Non-medical Degree
n (%)	98 (51.9%)	98 (51.9%)
No		
n (%)	42 (22.2%)	38 (20.1%)
Yes		
n (%)	49 (25.9%)	53 (28%)

p-value = .837

P-value is insignificant (0.837) in table 4.5. The majority of students who followed fad diet will recommend fad diets or weight loss programmes to others and no significant difference between medical and non-medical students was found.

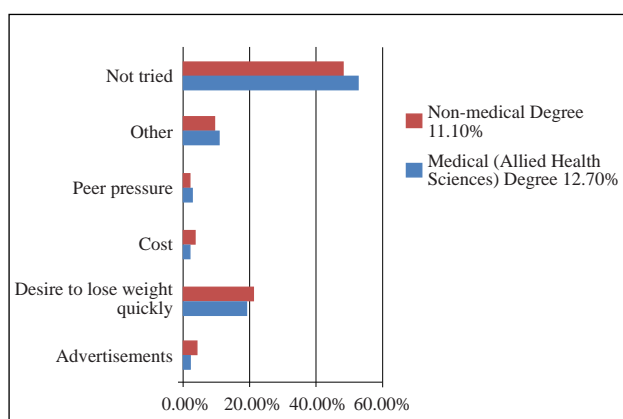


Figure 4.1: If you tried a weight loss programme. what made you decide to try it?

The figure 4.1 shows the motivation behind starting fad diets. The options provided were cost, advertisement, desire to lose weight quickly, peer pressure, not tried and other. Among medical students, 1.587% participants were persuaded by advertisements, 2.646% tried because of cost, 19.05% stated their desire to lose weight quickly, 2.646% succumbed to peer pressure, 52.38% participants did not try and 10.58% participants tried for other reasons. Among non- medical students, 4.233% participants tried because of advertisement, 3.175% were tempted by cost, 21.16% wanted to lose weight quickly, 1.587% gave in to peer pressure, 48.15% participant did not try and 8.995% tried for other reasons.

DISCUSSION

The current study compares medical and non-medical students for their practices, experiences, and results of their longest fad diet. In contrast to a previous study, Table no 4.2 shows that the majority of the students did not try any fad diets and this may be because the majority was satisfied with their body weights. Whereas a previous study had shown that the majority of

respondents had tried different fad diets including Atkins, vegan, keto, liquid, and other types of fad diets^{9,10}. In a previous study, very few people were in favor of fad diets contrasting with the current study in which the majority will recommend fad diets to those who want to lose weight as shown in table 4.5³. Regarding the results of the longest fad diet tried, current research found that the majority experienced no change in their body weights as shown in Table no.4.3 while an earlier study had stated that the majority experienced temporary weight loss, but did not achieve desired results. A similarity in both the researches is that the participants did not achieve the desired results, while a contrast is that the current research participants reported no change but the respondents in the previous research had experienced temporary weight loss¹¹.

The present study demonstrates findings similar to those reported in previous researches. In a previous study, most participants did not report any adverse health effects associated with fad diets, although some noted behavioral changes. Likewise, in the current study, the majority of participants who followed fad diets experienced no adverse health effects; however, a few reported mild signs and symptoms, as shown in Table 4.4³. With regard to social media, previous studies reported that most participants became aware of different fad diets through social media platforms, advertisements, peers, and friends, which motivated them to adopt these diets¹². Figure 4.1 shows that those who tried different weight loss programmes were influenced by several factors including advertisements as the most effective. When compared with previous research, the present study demonstrates similar findings regarding the influence of social media and advertisements on the adoption of various diets and weight-loss programmes. Several earlier studies have reported that exposure to social media and advertisements encourages individuals to engage in weight-loss practices to attain their desired body image and physical appearance.

The previous study found that majority of the participants used social media as a major source of information about different types of diets, while role models, influencers, friends, and family also played roles in informing the respondents about different diets³. Another study states that media is a major motivating factor which influences people to follow different diets⁵. Previous research had also demonstrated that exposure to body images on social media, including those of actors, role models with slim body types, and individuals sharing idealized personal images, can shape individuals' perceptions of their own body image and weight^{13,14}.

More studies have reported that those who viewed different advertisements regarding fad diets were more likely to adopt these which agrees with our current study^{9,15,16}. Therefore, it is safe to say that most of the findings of this current study were similar to the previous studies except that majority of the participants did not try fad diet, experienced no change in their weights and majority will recommend it to others, as they experienced no serious health issues.

Since the survey was conducted online, there is a possibility of bias in the self-reported data. Due to the online format, there is no certainty regarding the accuracy of participants' reported weights. Additionally, the short time period allocated for the study may have further limited the reliability of the findings.

CONCLUSION

A fad diet is a weight-loss approach that many people try, often influenced by advertisements, peer pressure, and personal body image concerns. It has remained a popular trend over time. This study aimed to explore how medical and non-medical students use fad diets and what their experiences are like. The findings showed that most students in both groups had never tried a fad diet, mainly because they were satisfied with their body weight. Among those who had tried one, most did not notice any change in their weight, which may be because they followed the diet for a very short period, usually less than a week. Interestingly, many students from both groups said they would still recommend fad diets to others, as they did not report major health issues from them. Over all, the study suggests that there is no meaningful difference between medical and non-medical students in their use of fad diets or their willingness to recommend them.

Funding: Nil

Conflict of Interest: Author declares that there is no conflict of interest.

Authors' Contributions: **SND:** supervised the study, provided overall guidance, and contributed to data analysis. **AN, H,** and **AW:** contributed to the interpretation of results. **UA** contributed to study objectives, data collection, and data analysis. **SAE** contributed to the study concept, design, and data collection. **ARN:** performed statistical analysis using SPSS. All authors reviewed and approved the final manuscript.

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