The Final Draft (25% of Total Grade): Due Week 15

Make sure you completely fill out all the information in the sections below. Failure to

complete these sections fully and honestly may incur a loss of points. Responding to some

questions with "no" or "n/a" or "I don't know yet" is acceptable; however, leaving any

responses blank is not. If you do not understand any questions you are encouraged to contact

your instructor.

Section 1

Name: Fahad Alzara

Your Major: Computer Engineering

Section 2

On a scale of 1 to 10, how confident are you now feeling about writing for this

course?

1/8.5

Section 3

Final grade you received from your previous assignment (Working Draft):

1/100

Section 4

Based on your last assignment and the lessons you have received so far in ENG 204, what three things have you given extra care and attention towards for this assignment?

FAD DIETS: WHY THEY DO NOT WORK	
1/Cohesion	
2/Organization	
3/Paragraph structure	

Checklist

Before submitting, make sure that you can write "YES" for each of the items below.

1/ I understand that if I write "YES" to any of these statements then such a response is completely true. I further understand that if there is evidence that I have not responded accurately then my paper will be returned to me ungraded. In such a case, I will have to correct my paper and resubmit it. In so doing, I will be subject to a "late penalty."

YES

2/ I have accurately and fully completed an Auto-Peer review of my paper.

YES

3/ I have named the file for submission as follows: Working Draft [my iLearn name] For example: Final Draft Philip Michael McCarthy.

YES

4/ The file I am submitting is a Microsoft Word document.

YES

5/ I have read the rubric and all relevant course material, and included all the information required.

YES

6/ I have changed the header of this paper to the ALL CAPS title of my paper.

VES

7/ I have pressed spellcheck/grammar check and corrected any text as appropriate.

YES

8/ I have carefully read out loud my entire paper and corrected issues where appropriate.

YES

9/ I have carefully checked my paper to ensure there are *no* examples of any form of plagiarism. I fully understand what these forms of plagiarism are and I realize fully that any

examples of plagiarism will have severe consequences (including *but not limited to* a zero grade, an F for the course, a formal report to administration, and/or having to write a completely new research paper on a different topic). I further confirm that I have had ample opportunity to discuss issues of plagiarism with my instructor and that any and all of my questions have been addressed.

YES

10/ All work submitted in this paper is my own. No other person was involved in any of the actual writing of this paper.

YES

Write Your Paper Below

Begin your paper at the <u>start of the next page</u>. Note that APA Level 1 and Level 2 headers have *not* been provided for you: You are now required to complete these yourself. Complete the paper using appropriate paragraphs. Remember to leave the rubric at the end of the paper.

Abstract

In recent years, fad diets have become more prevalent. This increase in popularity is mainly caused by the drastic spike in obesity rates. In this paper, I argue that fad diets are problematic and unnecessary. I support my position with three arguments. First, I argue that fad diets can be detrimental to human health. Second, fad diets have low sustainability and do not promote long-term weight maintenance. Finally, fad diets are inefficient in weight loss. While some people argue that fad diets are nutritionally adequate, I show that their claim only applies to diets involving a balanced macronutrient ratio. Whereas some may argue that fad diets promote weight loss, I show that the additional weight loss caused by these fad diets is attributable to sources unrelated to fat loss. I conclude my paper by suggesting people to maintain a caloric deficit, incorporate aerobic exercises, and opt for low-energy dense foods.

Keywords: Fad diets, weight loss, calorie deficit, TDEE, macronutrients, aerobic training

Fad Diets: Why They Do Not Work

In this paper, I argue that fad diets are problematic and unnecessary. I define fad diets as any plan that promotes weight loss by either altering macronutrient ratio or restricting certain food groups. Nowadays, fad diets have gained popularity because obesity has become a major health concern. That is, approximately 42% of the American population is either overweight or obese (Malik et al., 2020). However, there is little evidence to support the fact that fad diets are the optimal approach to nutrition.

I support my position on fad diets with the following three arguments. First, some fad diets may have health implications. In particular, fad diets may lead to nutritional deficiencies or even increase the risk of certain diseases. For instance, Nouvenne et al. (2014) report that fad diets that are either high in protein or low in carbohydrates may increase the risk of developing kidney stones. Second, fad diets have low sustainability and depend on short-term results. Obert et al. (2017) argue that most fad diets require a great deal of commitment and can be expensive. Finally, fad diets are ineffective for weight loss. As shown in Denke (2001), in a study comparing the Atkins diet with caloric restriction alone, results revealed that there was not much difference in weight loss between the two.

I also consider alternative positions on fad diets. First, in contrast to fad diets causing nutritional deficiencies, many people argue that fad diets are nutritionally adequate and can also provide additional health benefits. Second, many critics argue that fad diets may prevent chronic diseases. For instance, according to Halton et al. (2006), low-carbohydrate diets combined with vegetables may reduce the risk of coronary heart disease. The authors also show that other diets such as high-carbohydrate diets may increase the risk of coronary heart disease. Finally, critics may also argue that fad diets promote weight loss. For example, as discussed in Obert et al. (2017), most fad diets lead to weight loss because they limit certain food groups, which help with maintaining a caloric deficit. However, other studies argue that restricting specific macronutrients may lead to nutritional deficiencies (e.g., Denke, 2001;

Khawandanah & Tewfik, 2016). These deficiencies may include insufficient intake of vitamins and minerals such as magnesium, iron, and calcium.

This paper is of interest to people who are seeking to lose weight or change their eating habits. That is, by helping people understand what triggers weight loss, they can become more knowledgeable and be able to choose a diet that is suitable. I conclude my paper by providing recommendations such as tracking caloric intake and incorporating aerobic training. Tracking caloric intake aids with the weight loss process as it helps people decide how many calories they need to consume in order to lose weight. In addition, aerobic exercises function as a tool to increase negative energy balance and thus, produce a greater weight loss.

Nutrition

Many critics argue that fad diets are nutritionally adequate. According to Castro-Quezada et al. (2014), the Mediterranean diet involves high consumption of vegetables, fruits, grains, and nuts. Furthermore, the authors narrowed down their research on the Mediterranean diet to studies conducted on humans. Specifically, one part of the research was to observe the nutritional adequacy of the Mediterranean diet on children. For example, a cross-sectional study was conducted on individuals ranging from the ages of 6 to 24 by completing a questionnaire (KIDMED index). The study goes on to describe the KIDMED index as a test used to assess adherence to the Mediterranean diet in youths and children. The authors observed that the consumption of potassium, fiber, iron, phosphorous, calcium, and magnesium increased as the KIDMED Index increased. Results also revealed that the percentage of children with insufficient intake of magnesium, vitamin B6 (excluding males under the age of 14), and iron (in females), decreased according to the KIDMED Index. Additionally, the authors show that the Mediterranean diet is also linked to a lower incidence of type 2 diabetes, cancer, and cardiovascular disease.

Although Castro-Quezada et al. (2014) show that fad diets are nutritionally sufficient, one study argues the opposite. Denke (2001) argues that a low-carbohydrate, high-protein

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diet leads to nutritional deficiencies because they exclude vegetables, fruits, and grains. Specifically, Denke examines a study concluding that children following low-carbohydrate diets have deficiencies in magnesium, calcium, and iron. Denke also highlights that although supplemental vitamins can help with most of these nutritional deficiencies, diets with a reduced carbohydrate intake will still be inadequate in a variety of important phytochemicals that are only found in vegetables, fruits, and grains.

In addition to low-carbohydrate, high-protein dietary regimens, a low-fat, low-protein diet can also lead to nutritional deficiencies. Khawandanah and Tewfik (2016) argue that limiting the consumption of fats and proteins results in inadequate intakes of minerals such as zinc and calcium. For example, low-fat diets such as the Pritikin diet recommend fat consumption to be no more than 10% of total daily intake. However, the authors argue that this restriction in fat intake is close to the minimum amount of essential fatty acids required for the body. Khawandanah and Tewfik also argue that such unbalanced eating habits are associated with amenorrhea and menstrual irregularity. Therefore, an unbalanced macronutrient ratio leads to inadequate intakes of micronutrients, compared to balanced diets such as the Mediterranean diet, which are more likely to be nutritionally sufficient.

Disease Prevention

Many people argue that fad diets reduce the risk of chronic diseases. For instance, Khawandanah and Tewfik (2016) report that low-carbohydrate diets can significantly decrease triglyceride and plasma LDL cholesterol levels. The authors also discuss a study analyzing the effects of reducing carbohydrate intake in patients diagnosed with type 2 diabetes. The results reveal that the restriction in carbohydrate intake improved the patient's glycemic index and reduced medication control. Additionally, Halton et al. (2006) conducted a study over a period of 20 years and recorded 1,994 cases of coronary heart disease. The authors suggest that vegetables containing protein and fat may reduce the risk of coronary heart disease if combined with low-carbohydrate diets.

Despite low-carbohydrate diets facilitating the prevention of diseases, Schutz et al. (2021) argue that ketogenic diets are harmful in the long term. For example, the authors argue that the potential complications of continuing the diet for a long time may include chronic fatigue, reduced physical performance, and headaches. In addition, since the ketogenic diet tends to lower blood pressure, patients with diabetes need to constantly monitor their blood pressure. Furthermore, the authors also examine a study that was conducted over 25 years. The sample size was 15,000 and included both men and women from America. The results show that the lower the carbohydrate intake, the lower the life expectancy. Subsequently, low-carbohydrate diets should not be recommended as the drawbacks outweigh the benefits.

Some argue that fad diets may prevent chronic kidney diseases. For instance, as argued in Nouvenne et al. (2014), diets such as the lacto-ovo-vegetarian diet seem to decrease the risk of urinary stone formation. More specifically, vegetarian diets are highly alkalized on urines, which leads to an increase in urine pH. This increase in urine pH helps in decreasing the risk for uric acid stones. As such, the authors suggest that the best way to prevent urinary stone formation is by opting for a diet with high consumption of fruits and vegetables, low animal protein and salt intake, and balanced consumption of calcium-rich foods.

While some fad diets are safe for the kidneys, other fad diets seem to harm the kidneys instead. For example, as discussed in Khawandanah and Tewfik (2016), low-carbohydrate diets such as the Dukan diet involve limiting carbohydrates and sugars and increasing the intake of animal protein. As a result, fatty acids and ketone bodies are the main sources of energy instead of glucose. Ketosis could cause hyperuricemia because ketones may interfere with uric acid for renal tubular excretion. Hyperuricemia refers to the build-up of uric acid in the blood. Hyperuricemia can also aid in the formation of kidney stones ("What is hyperuricemia," 2021). Therefore, opting for moderately low-protein diets and consuming vegetables and fruits is the most optimal way to prevent urinary stone formation.

Effectiveness

Opponents claim that fad diets promote greater weight loss than other dietary approaches. According to Denke (2001), people who consume 500 calories fewer than their TDEE are likely to lose between 0.45 to 0.9 kg per week. By contrast, low-carbohydrate diets tend to produce an average of 2.5 kg weight loss during the first week. While this increase in weight loss may seem like low-carbohydrate diets produce greater fat loss, the truth is that the surplus in weight loss is attributable to diuresis caused by these diets. Denke explains that reducing carbohydrate intake triggers two metabolic processes that are responsible for reducing body water. The first process is known as glycogen mobilization. The liver and muscles store approximately 100 and 400 grams of glycogen, respectively. This process results in a one kg weight loss since every gram of glycogen is mobilized with two grams of water. The second process is due to the generation of ketones from the catabolism of fat. The presence of ketone bodies increases water loss and renal sodium. Similarly, Denke discusses a study that was conducted to compare a mixed diet with a low-carbohydrate, high-fat diet during a 10-day period. The results revealed that the ketogenic diet produced a weight loss of 4.6 kg while the mixed diet only resulted in a 2.6 kg weight loss. However, the loss in total body water content was the main factor in causing this difference in weight loss. Thus, greater weight loss does not imply greater fat loss because a portion of the weight lost may be attributable to other sources such as diuresis.

Critics may argue that fad diets help with eating less. That is, fad diets restrict certain food groups, which may lead to weight loss. For example, as argued in Denke (2001), the Atkins diet, which is a high-protein, low-carbohydrate diet, may help with eating fewer calories and thus, aiding with the weight loss process. More specifically, Denke argues that for some individuals, increasing protein intake suppresses appetite. For others, ketosis seems to suppress appetite instead. lowering carbohydrate intake also restricts foods that are most likely to be consumed excessively such as bread, pizza, and French fries. By simply following a diet that has a high protein intake and excludes carbohydrates, patients seem to consume 500 calories fewer. However, according to the first law of thermodynamics, if

patients are already consuming more than 500 calories over their TDEE (Total Daily Energy Expenditure), then they will still gain weight. Although Denke argues that some fad diets help with eating fewer calories, the author also argues that caloric restriction is the main factor regarding weight loss. For instance, in one study, patients followed the Atkins diet and reduced their daily caloric intake by 500 kcal/day. Eight weeks later, results revealed that the average weight loss was 7.7kg, although the weight loss was not much different from caloric restriction alone. Thus, fad diets lead to weight loss because they apply the concept of caloric restriction.

Sustainability

Most fad diets cannot be sustained for extended periods of time. Khawandanah and Tewfik (2016) argue that it is not easy to maintain a fad diet because eating fewer calories involves lifestyle changes. The authors also discuss that it is difficult to commit to a fad diet because people tend to revert to their old eating habits. Furthermore, a study on overweight patients observed that they could not continue following a certain fad diet either because it was expensive or unsuitable. Similarly, Khawandanah and Tewfik also examine a study comparing four popular diets over six months. The trial included 293 overweight and obese individuals, all of whom managed to lose body weight and body fat. Although the Dr Atkin's new diet revolution produced greater weight loss initially, there was no difference in weight loss between the four diets after six weeks. However, the four diets were not as sustainable as they were initially. The authors also highlight a review conducted on the same study that concludes only 3-4% of the patients managed to maintain their weight after five years. These patients incorporated meal substitutes and physical activity into their life, which may be the key factor to weight maintenance. As such, it appears that transient dietary adjustments only result in temporary weight loss.

Apart from following fad diets, other dietary approaches may be more sustainable in the long term. For example, a fiber-enriched diet may promote weight management if incorporated properly. As argued in Khawandanah and Tewfik (2016), increasing the

consumption of fruits is ideal for weight loss because of their properties. That is, fruits are low in calories, high in fiber, low in fat, and contain essential vitamins and minerals necessary for the body. The authors also discuss that a high dietary fiber diet increases satiety and decreases hunger. In addition, incorporating low-calorie dense fruits rather than high-calorie dense foods can allow individuals to eat more while consuming the same amount of energy. Furthermore, Khawandanah and Tewfik examine a study on the relationship between BMI and fruit intake. The results show that increasing fruit and vegetable intake was associated with a decrease in high sugar and fat intake. More specifically, eating three servings of vegetables and two servings of fruits per day resulted in a decrease of high-sugar/high-fat foods (less than 10 servings per week). Thus, increasing fruit intake is crucial for weight management as fruits are low-energy, high-fiber foods, which can be incorporated into various diets to increase their sustainability.

Recommendations

Although diets cannot be neglected, other key factors can also be significant in determining the success of a dietary regimen. These key factors include eating in a caloric deficit, incorporating aerobic training, and increasing the intake of low-energy foods.

Caloric Deficit

Reducing body fat only depends on energy deficit. According to Strasser et al. (2007), a negative energy balance is the only way to lose fat. More specifically, the authors conducted a study on 20 overweight and obese females, where the patients were divided into two groups. The first group (D) only followed a dietary program, while the second group (DE) followed a diet and exercised. In addition, both groups D and DE decreased their caloric intake by 1680- and 840-kJ, respectively. Patients in the DE group were required to exercise three times a week to reach the same energy reduction as group D. Eight weeks later, results revealed that both groups lost approximately the same body mass and body fat. However, the authors also highlight that subjects from the DE group improved their maximum exercise tolerance. Therefore, regardless of the method for body mass loss, losing body fat mainly

depends on the negative energy balance. People who also incorporate aerobic training in addition to dieting may also notice an increase in physical fitness.

Aerobic Training

Regardless of energy intake, aerobic exercise results in weight loss. More specifically, Donnelly et al (2013) conducted a study to investigate the effects of aerobic training on weight loss. A total of 141 overweight and obese individuals were randomized into three groups. The first two groups were required to exercise at either 600 kcal/session or 400 kcal/session, while the third (control) group was not required to do any aerobic exercise. Furthermore, subjects who were required to exercise were supervised five days/week, for 10 months. All subjects were also required to continue following their typical ad libitum diets. The results showed that the 600 and 400 kcal/session groups managed to lose 5.2 ± 5.6 kg and 3.9 ± 4.9 kg, respectively, compared to the control group, where they gained 0.5 ± 3.5 kg. In addition, the author shows that there was no significant difference between males and females within groups. Thus, individuals who incorporate aerobic training alone into their lifestyles will lose weight, regardless of their diets.

Low-Energy Foods

The consumption of low-energy density foods increases the sustainability of a given diet. Greene et al. (2006) argue that low-energy density foods are associated with prolonged weight management. More precisely, the authors recruited individuals to complete the EatRight Weight Management Program. The EatRight program is a 12-week program that promotes the consumption of low-energy density foods and limits foods that have a high-energy density. 2-Two years later, results reveal that 78% of the participants gained less than 5% of their initial weight, and 46% did not gain any weight or lost more weight. The authors show that the volunteers managed to maintain their weight by choosing smaller portion sizes of high-energy foods and leaning towards low-energy, high-volume foods instead. As such, it is encouraged to increase the consumption of low-energy foods and limit the intake of energy-dense foods to produce greater weight maintenance in the long term.

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Conclusion

In this paper, I argued that fad diets are problematic and unnecessary. Among the many downsides of following fad diets is that they may be detrimental to human health. Studies show that most fad diets lead to nutritional deficiencies and can increase the risk of certain diseases. One other disadvantage of fad diets is that they cannot be sustained for long periods of time. Evidence suggests that temporary changes in eating habits only result in momentary weight loss. Fad diets are also ineffective in weight loss. Research shows that weight loss primarily depends on caloric restriction.

Critics may argue that diets are nutritionally sufficient and can even provide other health benefits. Although this claim may be true for some fad diets, other fad diets, which have an unbalanced macronutrient ratio, tend to cause nutritional deficiencies instead.

Opponents may also argue that fad diets aid in the prevention of various diseases. While this claim is true, research shows that the drawbacks of these diets outweigh their potential benefits. People may also argue that fad diets promote weight loss. However, case studies reveal that the surplus in weight loss from these fad diets is attributable to other causes such as diuresis.

This paper is important because it brings awareness to the possible risks of fad dieting. This The paper also provides other alternatives to fad diets that are more realistic and sustainable. That is, individuals can still lose weight in a healthy way by following a balanced diet of their choice and maintaining a slight caloric deficit to avoid muscle loss. In addition, increasing the consumption of low-energy foods helps with long-term weight management. People can also incorporate aerobic training into their life to increase their TDEE and thus, consume more calories while still losing weight. Although fad diets may work for some people, the long-term effects of these diets are still unknown. As such, further research on altering macronutrient intake should be conducted to confirm the reliability of fad diets.

References

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- Castro-Quezada, I., Román-Viñas, B., & Serra-Majem, L. (2014). The Mediterranean diet and nutritional adequacy: A review. Nutrients, 6(1), 231–248. https://doi.org/10.3390/nu6010231
- Denke, M. A. (2001). Metabolic effects of high-protein, low-carbohydrate diets. *The American Journal of Cardiology*, 88(1), 59–61. https://doi.org/10.1016/s0002-9149(01)01586-7
- Donnelly, J. E., Honas, J. J., Smith, B. K., Mayo, M. S., Gibson, C. A., Sullivan, D. K., Lee, J., Herrmann, S. D., Lambourne, K., & Washburn, R. A. (2013). Aerobic exercise alone results in clinically significant weight loss for men and women: Midwest exercise trial 2. *Qbesity*, 21(3), E219–E228. https://doi.org/10.1002/oby.20145
- Fitzgerald, D. (2020, June 8). Nutrition for weight loss: What you need to know about fad diets. Familydoctor.Org. https://familydoctor.org/nutrition-weight-loss-need-know-fad-diets/#:%7E:text=They%20appeal%20to%20people%20by,a%20short%20amount%20of%20time.
- Greene, L. F., Malpede, C. Z., Henson, C. S., Hubbert, K. A., Heimburger, D. C., & Ard, J. D. (2006). Weight maintenance 2 years after participation in a weight loss program promoting low-energy density foods*. *Obesity*, *14*(10), 1795–1801. https://doi.org/10.1038/oby.2006.207
- Halton, T. L., Willett, W. C., Liu, S., Manson, J. E., Albert, C. M., Rexrode, K., & Hu, F. B.
 (2006). Low-carbohydrate-diet score and the risk of coronary heart disease in women.
 New England Journal of Medicine, 355(19), 1991–2002.
 https://doi.org/10.1056/nejmoa055317
- Khawandanah, J., & Tewfik, I. (2016). Fad diets: Lifestyle promises and health challenges.

 **Journal of Food Research*, 5(6), 80–94. https://doi.org/10.5539/jfr.v5n6p80

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- Malik, N., Tonstad, S., Paalani, M., Dos Santos, H., & Luiz do Prado, W. (2020). Are long-term FAD diets restricting micronutrient intake? A randomized controlled trial. Food Science & Nutrition, 8(11), 6047–6060. https://doi.org/10.1002/fsn3.1895
- Nouvenne, A., Ticinesi, A., Morelli, I., Guida, L., Borghi, L., & Meschi, T. (2014). Fad diets and their effect on urinary stone formation. *Translational andrology and urology*, *3*(3), 303–312. https://doi.org/10.3978/j.issn.2223-4683.2014.06.01
- Obert, J., Pearlman, M., Obert, L., & Dert, S. (2017). Popular weight loss strategies:

 A review of four weight loss techniques. Current Gastroenterology Reports, 19(12),

 1–4. https://link-springer-com.aus.idm.oclc.org/content/pdf/10.1007%2Fs11894-017-0603-8.pdf
- Schutz, Y., Montani, J., & Dulloo, A. G. (2021). Low-carbohydrate ketogenic diets in body weight control: A recurrent plaguing issue of fad diets? *Obesity Reviews*, 22(S2). https://doi.org/10.1111/obr.13195
- Strasser, B., Spreitzer, A., & Haber, P. (2007). Fat loss depends on energy deficit only, independently of the method for weight loss. Annals of Nutrition & Metabolism, 51(5), 428–32.
 - https://www.proquest.com/docview/232080974?accountid=16946&parentSessionId=uMoczrNVIIa2sgFqkpD21IDu1JhhYxdVWN0rt6OkuVE%3D
- What is hyperuricemia? (2021, June 3). WebMD. https://www.webmd.com/kidney-stones/what-is
 - hyperuricemia#:%7E:text=Hyperuricemia%20refers%20to%20a%20high,disease%20 that%20affects%20your%20joints.

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The Final Draft will be evaluated based on the rubric below as well as all materials, instructions, and feedback provided by the instructor. Note that evaluations assume good punctuation, word choice, grammar, presentation, and strength of arguments. Evaluations also assume an appropriate quality of writing, length of response, and that language issues discussed in class have been followed appropriately. Points will be deducted if these assumption are not met. Points will also be deducted if the template has not been completely and appropriately filled out, or if any item from the template is missing. A further points' deduction will occur if an incorrectly named file is submitted.

Rubric for Evaluating the Final Research Paper

Final Research Paper

The final research paper is 10-12 pages (3200 – 3850 words, excluding reference list, abstract, and title page) and incorporates feedback from the drafting process.

Elements		Points
Content		
	Title Page	
	Abstract and Key Words	/5
	Effectively summarizes research paper (between 130 and 150 words)	
	Lists 3-5 relevant key words	
	Introduction (~1 page)	/5
	Provides appropriate and compelling entry to the topic	
	Clearly articulates the research question(s) and/or thesis	
	Body (~9-11 pages)	/50
	Presents a well-structured, logically-argued, and cohesive discussion	
	Includes headings that reflect the paper organization	

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