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## The Impact of Nutrition on the Mental and Physical Health of Young Adults

Dareena El-Far

Bowling Green State University, delfar@bgsu.edu

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### **Statement of the problem**

In the walks of life that befall most individuals of modern society, there exist many influences regarding food that tend to go unnoticed. At the grocery store, the foods that tend to catch one's attention are cheaper and at the forefront of the entrance, while the healthier food options selling for a more expensive price are relegated to the back of the store. At work, the box of donuts someone left out for everyone looks quite enticing. Who would not reach to grab at least one or two? And even at home, after a long day of work or school, one may not have the energy to cook for themselves using the fresh ingredients they have at home. What harm could it do to just order a medium-sized pizza tonight? Actually, it looks like the large size is being sold at a discounted price. Why not get the large then, instead? It is quite hard to resist a deal like that, after all. As with everyone, I am no stranger to these influences myself. Throughout the majority of my teenage and young adult years, I have struggled to maintain a healthy and nutritious diet of proper proportions in direct connections with influences such as these. Although these influences taken individually seem to be somewhat small in scale, when taken together, it becomes evident that societal influences are one of many influences that can cause an individual to eat a poor diet. And with a poor diet, consequentially, comes poor physical and even mental health.

The experience I have with trying to navigate the following of a healthy and balanced diet and the influences my everchanging eating habits have had on my mental and physical health are driving factors regarding why I chose to write about this topic. In times in which I did not healthy and ate disproportionate quantities of food, I found that my physical and mental health was negatively affected by my eating habits. In times that I did eat healthily and proportionally, however, I found that my physical and mental health generally fared better in comparison to the state they were in while the diet I was consuming was poor. As a result of my

discovery of this connection, I became curious about how both of these things could be impacted by something as simple as the food I was eating. Throughout my time researching this topic, I hope to pinpoint what aspects of mental and physical health are linked to or affected by food consumption and composition, but I primarily aim to address how the mental and physical health of young adults can be managed regarding nutrition. The best method to use in addressing the negative mental and physical health effects onset by poor diets in young adults is to have dietitians aid in the confrontation of the issue by providing young adults with the necessary tools and guidance to maintain a healthy and balanced diet.

### **Background of the problem**

In the pursuit of a comprehensive understanding of nutrition concerning mental and physical health, it is essential to address and define certain terms of interest. The National Institute of Mental Health (2016) defines an eating disorder as a mental illness in which an individual has a preoccupation or obsession with food and body weight, this preoccupation causing the individual to experience serious and often fatal instabilities in both their mind and eating behaviors. One of the most common eating disorders in the United States is binge-eating disorder, which can be defined as an eating disorder in which an individual engages in uncontrolled sessions of eating unusually large quantities of food and does not subsequently attempt to fast, exercise excessively, or throw up afterward (“Eating disorders,” 2016). Generally speaking, a healthy diet can be defined as an eating pattern including all of the basic food groups that provides an individual with a sufficient amount of the essential nutrients needed while maintaining a caloric balance in which an individual burns the same amount of calories they intake (“Expert questions and answers,” 2020). Nutrition.gov (2020) describes a calorie, a term

that is interchangeable with the term “kilocalorie”, as the amount of heat that can subsequently raise the temperature of a kilogram of water up to 1 degree Celsius or about 33.8 degrees Fahrenheit. Calories, essentially, are used as a standard measure of energy intake and expenditure for an individual that can be used to help an individual lose, maintain, or gain weight depending on their nutritional goals.

Regarding what may cause young adults to choose unhealthy foods over healthier ones throughout their everyday lives, both social and advertising influences act as some of the key deciding factors. Robinson et al. (2013) suggest that the consumption of junk food in young adults can be significantly influenced by how each individual perceives the consumption levels of high-calorie foods in their peers, a connection that has been revealed by studies in which participants tended to eat a larger quantity of snacks if they were under the impression that their peers had consumed a similar amount. The increased consumption of high-calorie foods can also similarly be connected to the more general influences of food advertising, as numerous amounts of research have linked the constant marketing of junk food to young people to increased rates of both high-calorie food consumption and obesity (Harris & Graff, 2012). Through factors such as social and advertising influences regarding nutrition, an improper perception of nutritional norms may in part be created, a perception that tends to stand uncorrected as young adults are not properly informed of how individuals should be eating to remain healthy in body and mind.

The lack of nutritional education that individuals tend to have remains a significant influence on the resulting eating habits that young adults take on throughout their lives. The undertaking and maintenance of healthier and more nutritious diets in adolescents and young adults tend to be quite difficult, especially as these individuals move on to independent living without the necessary tools needed to partake in healthier eating habits (Chau et al., 2018).

Quaidoo et al. (2018) determine the acquisition of sufficient nutritional education in young adults to be crucial, as those who have more knowledge regarding the composition of a healthy diet tend to partake in nutritionally focused behaviors such as being more conscious of the foods they eat and are subsequently more successful in maintaining their nutritional health. As nutritional education is quite influential on the eating habits of young adults, it also becomes necessary to address the possible extreme eating behaviors that young adults may engage in that may be influenced by an improper understanding of how an individual should be eating.

The prevalence of eating disorders and their influence on causing individuals to eat extremely is a significantly important topic of discussion to address concerning the eating habits of young adults. Rohde et al. (2014) state that eating disorders, which tend to surface alongside or after their risk factors in adolescence and adulthood, may cause individuals to partake in behaviors such as binge eating and extreme dietary restriction as a result of both environmental stressors and the pressure to look a certain way. In addition to the environmental and social factors that may pressure young adults into partaking in extreme eating behaviors, medical researchers have also drawn biologically based connections between eating disorders and genetic risk factors that may increase the likelihood of the development of an eating disorder in an individual as well (Easter, 2012). To best confront how factors such as eating disorders may cause an individual to eat poorly and therefore suffer from deficient mental and physical health as a result, the factors themselves must be confronted through the employment of effective solutions.

### **Authors' solutions**

Regarding the resulting negative physical and mental effects that poor nutrition has on young adults, the advocacy of the utilization of Mediterranean diets in the pursuit of nutritional improvement for young adults stands as an effective address to the presented issue. As detailed by Sofi et al. (2013), the Mediterranean diet is one that emerged several decades ago from the results of a study that put a health focus on Italy, Greece, and other populations close to the Mediterranean Sea and compared them to health statistics derived from other nations. The resulting data revealed that populations near the Mediterranean Sea tended to be less likely to develop cardiovascular disease in comparison to other nations. Through the established and strong link between the rate of consumption of saturated fats and the incidence of cardiovascular disease, studies like this one worked to prove a connection between the diets of those near the Mediterranean Sea and the decreased incidence of cardiovascular disease, which subsequently created the Mediterranean diet. It can be conclusively stated, therefore, that adherence to the Mediterranean diet can have positive health benefits based on the origin of its creation. Carlos et al. (2018) have also been able to back up the effectiveness of the Mediterranean diet through their findings from a group study concerning the link between adherence to the Mediterranean diet and the risk of various diseases. Through the analysis of the lifestyles of 22,786 Spanish university graduates over approximately 19 years, adherence to the Mediterranean diet has sufficiently been found to be associated with a reduced incidence of physical diseases such as type 2 diabetes and mental disorders such as depression. While the Mediterranean diet is effective based on its origin and resulting outcomes in those that adhere to it, individuals of a lower socioeconomic status may argue that adhering to the Mediterranean diet may be costly or inaccessible. A variety of the foods used in the Mediterranean diet such as fish, seeds, nuts, and olive oil may prove to be difficult for individuals on a budget to purchase regularly. This issue,

however, can be properly circumvented through guided action and planning. Individuals on a budget could purchase the foods included in the Mediterranean diet via the use of money-saving strategies when buying produce that may be more expensive in comparison to processed foods. Fish, for example, can be bought for the diet by looking for locally caught varieties of fish being sold at a discount for recipes calling for specific types of fish. The Mediterranean diet can be effectively used to improve the nutritional contents of the food that young adults consume and subsequently improve mental and physical health, yet there also exists other dietary guidelines and regiments, such as the adherence to a vegan or vegetarian lifestyle, that can also have a similar effect.

Negative physical and mental health effects caused by poor nutrition can be properly negated through the encouragement of young adults to follow a vegan or vegetarian lifestyle. Through the analysis of the available evidence provided by three different cohorts of individuals, Le and Sabaté (2014) were able to compare individuals consuming non-vegetarian, vegetarian, and vegan diets to see their resulting influence on health. The results of this analysis found a prominent link between the consumption of vegetarian diets and a decreased risk of the development of ailments such as cardiovascular disease and some forms of cancers in comparison to individuals consuming a non-vegetarian diet. In addition to this, it was also found that the adherence to a completely vegan diet seems to be linked to further protection against health complications such as obesity and heart failure in comparison to vegetarian diets as well. The findings of these comparisons, therefore, suggest a hierarchy of improved health outcomes that may be linked to the extent to which an individual consumes animal products. Orlich and Fraser (2014) support this connection through their review of dietary comparisons about the adherence to a vegetarian diet. Through the analysis of a diverse group of 96,000 individuals

over several years, plant-based dietary patterns and improved health outcomes were found to share an established connection. Individuals within the group study that adhered to a vegetarian diet were less likely to suffer from lifestyle-impacted health issues such as hypertension, diabetes, and metabolic syndrome in comparison to those who did not adhere to this sort of diet. While the adherence to a vegetarian or vegan diet has been linked to improved health outcomes, individuals considering the switch to a vegan or vegetarian lifestyle may argue that individuals on these diets might likely face possible nutritional deficiencies as a result of the removal of animal meat and/or products from their diets. Vegan and vegetarian individuals may be lacking in nutritionally important minerals and vitamins that are most easily found in animal products such as calcium and vitamin B-12. This issue can be addressed, however, in more ways than one. Individuals on a vegan or vegetarian diet can increase their intake of nutritionally important minerals and vitamins such as calcium and vitamin B-12 through the increased consumption of plant-based foods and/or supplements containing these compounds. Calcium-rich foods such as green leafy vegetables and dried fruits can aid in sufficient calcium consumption, and both calcium and vitamin B-12 can be consumed via the use of supplements containing them. Planning on the behalf of the individual in the pursuit of the adherence to a diet linked to improved health outcomes such as a vegetarian or vegan one may be essential to the diet's proper practice, but it also befalls the individual's environment to properly provide them with the means to do so.

In giving city planners and businesses the incentive to support existing or promote the addition of grocery and fresh food markets in food desert areas, young adults can more easily access nutritious food and prevent the worsening of mental and physical health conditions through improved dietary patterns. As found by the analysis of two groups of individuals in low-



income neighborhoods done by Richardson et al. (2017), there exists the possibility of a connection between the addition of grocery stores in food desert areas and an improvement in self-reported health conditions. The two selected groups of individuals, which were two food desert neighborhoods that tended to house individuals of a low socioeconomic status, were surveyed regarding aspects such as their food security and health statuses before and approximately one year after a new supermarket was introduced into the area. In doing so, data comparisons revealed that individuals living in these neighborhoods experienced a decline in both food insecurity and the prevalence of new diagnoses of health complications such as diabetes, high cholesterol, and arthritis. While the addition of supermarkets and grocery stores to low-income areas can be effective in the pursuit of dietary improvement, it is also essential to put a focus on existing food markets in these areas. In a study of a New York county conducted by Raja, Ma, and Yadav (2008), the testing of whether those of different racial groups were more likely to live in areas designated as food deserts revealed the prevalent issue of lack of support given to existing stores. While the introduction of grocery stores and/or supermarkets to certain areas is effective in providing nutritional aid, providing support to stores that were already providing healthy food options to those neighborhoods was revealed to be a more cost-efficient and convenient strategy to combat the food desert issue in some areas. Nevertheless, the findings of both of these studies consistently postulate that an effective way to combat the issue of young adults consuming nutritionally poor foods and subsequently suffering from health complications rests in the actions of the community to take on the responsibility of providing nutritionally better sources of food. Individuals who are aware of or who live in food deserts may, however, argue that the increased availability of healthy food options will not subsequently cause the population to choose these options. As a result of force of habit and the possible continuation of

unhealthier foods being cheaper in a given area, individuals in food deserts of a lower socioeconomic status may likely continue to choose unhealthy options. Although this possibility seems to be one that could inevitably occur, both community action and advocacy can work to mitigate this concern at its source. To combat the issue of the continued purchasing choice of unhealthy foods over healthy ones, the government or other involved organizations could work to change consumer patterns in a variety of ways. Taxing unhealthy foods, making healthier foods less expensive, and starting a nutritional education movement in the area could help encourage consumers in food deserts to choose healthier food options over unhealthier ones. While the introduction of the means to purchase and consume nutritious foods to young adults is essential for the betterment of their overall mental and physical health, young adults must also be properly educated on the importance of the management of their dietary patterns and its effect on their wellbeing to allow methods such as these to function as intended.

The provision of young adults with a more comprehensive nutritional education can, evidently, result in their increased tendency to make better dietary choices in the prevention of negative physical and mental health effects and the pursuit of positive ones. In an isolated study concerning the effects of nutritional education on physical and mental health, approximately 44 Japanese women with a BMI considered to fall within the “obese” category were assigned to either an experimental group or a control group. While the control group did not receive nutritional counseling, the experimental group consistently participated in nutritional interventions conducted by nutritional professionals for approximately eight weeks. Once the eight weeks concluded, it was found that those in the experimental group experienced an increased tendency to consume nutritionally dense foods, a decrease in their overall body-mass index, decreased scores on a designated depression scale, and improvements in the composition

of their own health reports to the researchers (Uemura et al., 2018). The findings of Auld et al. (2018) also seem to confer with this correlation between nutritional education and improved health, as their data yields similar results. In a study utilizing multiple, diverse groups of university graduates, an analysis was conducted concerning whether the introduction of a specific nutritional education program imparted any sort of effect on the young adults' quality of life. As it was founded by the cross-sectional study, individuals who participated in the provided nutritional education program tended to report an increase in the improvement of dietary habits and overall life satisfaction. While the introduction of nutritional education programs and interventions has been founded to yield promising results, nutritional professions and other nutrition-focused individuals may argue that the provision of a more comprehensive nutritional education may not directly result in healthier eating habits. Individuals may learn more of the importance of eating healthier foods, but they may not put this information into action out of force of habit or disregard it once they are no longer being taught about its importance. The issue of individuals not taking the nutritional education they received to heart, however, can be resolved by the ongoing advocacy of nutrition education programs and the introduction of habit changes along with the education. If the importance of proper nutrition is continuously advocated for in communities of young adults and incorporated changes of habit advocated towards them will effectively increase the likelihood that the individuals receiving the education will take it to heart and put it to use. While using nutritional education to advocate for the importance of dietary monitoring in the pursuit of improved physical and mental health effects in young adults can prove to be effective, the introduction of connections to dietitians and nutritionists can additionally or separately act as a support for young adults.

In connecting individuals with nutritional professionals such as dietitians and nutritionists, young adults can better pursue improved mental and physical health through the means of the development of better eating habits. As postulated by Teasdale et al. (2017), the occurrence of mental illness and the presence of unhealthy dietary habits tend to go hand in hand, which subsequently results in a higher risk rate of disease and illness. Through the use of observational evidence, researchers found that the provision of individualized health-focused interventions by nutritional professionals tended to be effective in overall improving dietary habits, physical health, and also mental health in eventuality in young adults and other individuals living with mental illnesses. With mental illness being a contributor to unhealthy eating habits and with those habits, in turn, contributing to the state of an individual's mental health, the introduction of nutritional professionals can aid in the betterment of both mental and physical health for young adults. As it has been highlighted by Schryver and Smith (2005), individuals also tend to be more likely to adhere to dietary advice in the event in which the advice was being provided by a nutritional professional. When qualitative data regarding opinions on dietary advice and the method of its provision was taken from a sample of 74 adults varying in age, individuals who had not been previously made aware of the dietary advice provided in the study regarding cholesterol that was postulated by physicians tended to doubt the accuracy of the provided advice. This general consensus of doubt among the adults proved to be linked to the source of the advice given, as many of the participants stated that they believed that registered dietitians were the most credible source of health information and expressed interest in being referred to dietitians rather than relying solely on physicians for dietary advice. Through the data collected in this study, it becomes evident that the introduction of dietary professionals in the lives of young adults could most likely cause them to be more likely to adhere to the

crucial and effective nutritional advice they were given based on an intrinsic tendency to trust the advice's source. Individuals concerned with financial prospects and affordance, however, may argue that hiring nutritional professionals such as dietitians and nutritionists may prove to be too expensive for the average individual. While the concern raised regarding financial cost is a valid one, it remains important to note that the hiring of nutritional professionals is more likely than not to be covered by insurance for those on a health insurance plan. Before connecting with a nutritionist or dietitian, young adults can contact their insurance providers to see if some or all of their visits to nutritional professionals will be covered by the policy they are on. While the use of nutritional and dietary professionals proves to be a viable avenue in which young adults can work to improve their dietary habits in the pursuit of better health, the general adherence to a balanced diet can also act as an avenue that is just as viable, regardless of whether an individual is connected with a dietary professional or not.

The recommendation of the following of a generally all-encompassing, healthy, and balanced diet to young adults can subsequently result in the improved mental and physical health of the individuals in question. As it has been established by the writings of Lim (2018), "A balanced diet following the recommended energy and nutrient intake range is desirable for chronic disease prevention and management" (p. 40). The adherence to a diet such as this one properly provides an individual with the proper amount of nutrients and energy needed for the subsequent reduction of the likelihood of developing diseases or illnesses that are connected to the occurrence of a poor dietary lifestyle. While diets such as the low-carb high-fat diet may be marketed as a healthy and effective way to maintain nutritional and physical health, Lim (2018) stresses that the adherence to extreme dietary patterns such as this one more likely than not lead to or cause a deficiency in certain compounds and nutrients, which can lead to negative effects

on the intestines, muscles, and bones of an individual. Onvani et al. (2016) further support the link between balanced dietary patterns and health improvements through the comprehensive meta-analysis of 13 different studies regarding the topic. Through the founded results of the study, a connection between the adherence to an established Healthy Eating Index (HEI) or an Alternative Healthy Eating Index (AHEI) and the resulting health risks of the participants was discovered. The adherence to balanced dietary patterns and guidelines subsequently was found to be "...associated with reduced risk for all-cause mortality (as well as cardiovascular mortality and cancer mortality)" (Onvani et al., 2016, p. 216). Through the maintenance of a balanced diet, young adults can properly and safely maintain and/or improve their health outcomes regarding the development of illnesses or diseases that tend to stem from poor dietary lifestyles. While a balanced diet tends to stand as one that is tried and true regarding health maintenance, individuals considering the adherence to a generally healthy and balanced diet may argue that healthy foods are not very easy to find in today's society. Many food places such as fast-food restaurants serve food that is cooked with trans fats and contains high amounts of calories, sodium, and fats. This can be properly circumvented in the pursuit of better eating habits, however. Through a comprehensive search of menus for places such as fast-food restaurants, healthier options can typically be found. Many fast-food restaurants provide healthier options such as varieties of salads and can accommodate for the removal of certain ingredients in their other options. In addition to this, individuals can also choose not to eat at fast-food restaurants and search for establishments with healthier options, as these establishments may not be as hard to find as one might think.

### **Authors' conclusions**

If Sofi et al. (2013) and Carlos et al. (2018) are used, young adults can pursue nutritional improvement to better their mental and physical health through the adherence to a Mediterranean diet. Through Le and Sabaté (2014) and Orlich and Fraser (2014), mental and physical health issues related to nutritional intake can be combatted through the encouragement of following a vegan or vegetarian lifestyle. Additionally, the utilization of Raja et al. (2008) and Richardson et al. (2017) can properly address the issue of poor nutritional intake and its consequences through both the support of existing food markets and/or the addition of grocery stores in food desert areas. Uemura et al. (2018) and Auld et al. (2018) can also improve the nutritional quality of young adults' diets by providing them with the means to manage their food intake via a comprehensive and all-encompassing nutritional education. Teasdale et al. (2017) and Schryver and Smith (2005) can also provide young adults with the tools needed to address the nutritional quality of their diets through the establishment of connections with nutritional professionals. It also can generally be said that the utilization of Lim (2018) and Onvani et al. (2016) stands as an effective way to improve mental and physical health in young adults through nutritional means via the recommendation of the adherence to an inclusive, nutritious, and balanced diet.

### **Gaps in the research and future recommendations**

Although the solutions at hand are quite encompassing of the problems and solutions associated with the nutritional improvement of young adult diets in the pursuit of better mental and physical health, there still exist some areas that remain unaddressed. One of these unaddressed areas is brought to light by Teasdale et al. (2017), in which the question of how those with eating disorders can be accommodated in the pursuit of the encouragement of healthy eating patterns. The paper itself makes this clear through its statement that it "...does not cover

eating disorders, which is a highly specialized area in mental health nutrition and which has very different dietetic treatment goals” (Teasdale et al., 2017, p. 48). Although the paper covers the general influence and usage of nutritional professionals such as dietitians, the acknowledgment of this exclusion further perpetuates the crucial nature regarding its address, as young adults with eating disorders especially need proper dietary intervention and aid. Another unaddressed area comes to light through Sofi et al. (2013), as the paper’s discussion of the level of adherence participants exhibited towards the Mediterranean diet became prominent, the main question concerning how the adherence to diets such as the Mediterranean, vegan, or vegetarian ones can be maintained in young adults once they are encouraged to do so. While Sofi et al. (2013) address the correlation that high adherence to the Mediterranean diet has with health improvement, it overall neglects to provide a solution to the issue regarding how individuals may not be motivated enough to continue adhering to a certain diet once it is introduced to them.

In terms of the address of the issue regarding the negative mental and physical health effects that poor dietary habits have on young adults and its possible solutions, a question concerning how this issue could most ideally be solved in a limitless world comes to fruition as an intriguing curiosity. If I had an unlimited amount of money, time, and resources, I would solve the problem outside of the solutions I’ve discussed so far via the establishment of a worldwide program that puts a focus on nutrition. Through this program, I would connect individuals with dietary professionals, easy access to healthier foods, additional mental health support for individuals with eating disorders and/or other mental illnesses, and all the other tools necessary to aid individuals in the adherence to nutritionally recommended methods, all at little or no cost to the people. To properly address the negative physical and mental health effects that poor nutrition has on young adults, it is essential to tackle the source of the problem via the



motion to encourage and advocate for the importance of making proper dietary choices through a variety of effective means.



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