

A Psychological Analysis of the Effects of Poor Diet in University Students

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Abstract

The consequences of poor nutrition in university students can cause overweight, poor academic performance and chronic, degenerative diseases caused by metabolic alterations and lack of physical activity. The objective of this work was to know the nutritional conditions, and to determine the risk of presenting some type of diseases in the university population due to poor nutrition. For this purpose, an online survey of 16 items was used using Google Forms to 392 students from universities in Ecuador. The results of the study show that university students are more vulnerable to have a poor diet due to lack of income, time, stress and anxiety caused by academic responsibilities. This causes a greater tendency to consume foods that have an impact on their health, such as overweight and poor academic performance.

Keywords: Students; Overweight; Academic performance; Feeding Behavior; social class.

Introduction

According to the World Health Organization (WHO), poor diet is the lack, excesses, imbalances of a person's caloric and nutrient intake (1). The WHO considers that one of the causes of noncommunicable diseases is poor diet along with lack of physical activity. (2)

For this it is important to analyze the poor diet in university students because their diets are unhealthy such as low consumption of fruits, vegetables, but with a high consumption of foods rich in energy and poor in nutrients that together with the lack of physical activity makes university students more prone to adverse factors such as chronic diseases, degenerative disorders that are caused by metabolic alterations. (3)

It is determined that the intake of foods rich in nutrients, with energy intake according to individual needs is related to good academic performance, since it improves the functioning of nervous tissue, thus helping cognitive ability. It was found that one of the consequences of a poor diet is the low academic performance added to the different diseases that can occur.(4)

According to studies conducted by the Spanish Journal of Community Nutrition came to the conclusion of the existence of a poor diet that is characterized by conditions of overweight or obesity, taking into account the eating habits of the people in whom the study was conducted show the execution of the three daily meals based on refined cereals, fruits, vegetables, fish, seafood and a high consumption of red meat, in addition to carbonated soft drinks. This determines that the diet is unhealthy and needs changes in the eating habits of the students.(5)

Appetite increases during adolescence and that is when more care should be paid to food, if what is desired is to prevent future diseases such as overweight. (6) Studies report that switching to higher education makes students more susceptible to adopting unhealthy routines. It has been observed that, weight gain in the student population is markedly greater than in the equivalent population not attending colleges or universities, and the prevalence of obesity and overweight is increasing. (7) (8)

Energy and nutrient requirements should match the needs of adolescents, since they are constantly engaged in physical activity. Those who are sedentary and consume foods with high caloric content are more likely to accumulate fat (9).

The present study aims to know the nutritional conditions, in addition to determining the risk of presenting some type of disease in the university population due to poor diet.

Materials and Methods

This study followed the guidelines of the STROBE guideline(10). It is a descriptive and retrospective cross-sectional analysis through an online survey that evaluated the poor diet of university students. A 16-item electronic questionnaire survey was developed and distributed electronically using the Google Forms online survey tool.

The inclusion and exclusion criteria for choosing the survey population are detailed below:

Inclusion criteria.

University students, students residing in Ecuador over 18 years old.

Exclusion criteria.

People who are not university students, residents outside Ecuador, people who do not have access to the internet and a device. People who belong to institutes or academies.

The information collected in the questionnaire included the following:

1. Demographics:

Data related to gender, age, your cultural identification and whether you reside with your parents.

2. Interesting facts: Questions about your education: University to which you belong, the career you study and the schedule in which you study.

3. Opinion of university students about whether or not they have good nutrition and not the reasons why this happens.

4. Issues related to your BMI, the development of physical activity, the amount of meals you eat during the day, whether or not you eat junk or healthy food during the week and if you consider that college schedules do affect your diet.

5. Rating on your diet.

The sample size was calculated taking into account the infinite population with a margin of error of 0.05 and a confidence level of 95%, 385 surveys were necessary, however the information collected from June 23, 2022 to June 30, 2022 was from 392 surveys.

Quantitative variables are expressed with means \pm standard deviation. A p-value < 0.05 was considered significant. The chi-square test was used to analyze associations between qualitative variables and the odds ratio was calculated when possible.

Data were coded and analyzed using Microsoft Excel. Descriptive statistics (frequency and percentage for categorical data) were used to summarize survey participants' responses. "This study was conducted in accordance with the Declaration of Helsinki."

Results

The mean age of the sample was 20.68 ± 2.37 years. Of the 392 university students surveyed, 31.4% (n=123) were male and 68.6% (n=269) were female.

27.81% (n=109) are students of the Universidad Regional Autónoma de los Andes, 27.81% (n=109) students of the Escuela Superior Politécnica de Chimborazo, 16.58% (n=65) students of the Universidad Nacional de Chimborazo, 15.56% (n=61) students of the Universidad Técnica de Ambato, and 12.24% (n=48) belong to the different universities of Ecuador.

Of the respondents studied careers related to the area of health 61.74% (n=242), engineering 17.09% (n=67), education 6.89% (n=27), law 3.32% (n=13), tourism 3.57% (n=14), finance 3.06% (n=12), communication 1.53% (n=6), architecture 1.53% (n=6), art 0.77% (n=3), mechanics 0.51% (n=2).

90.8% (n=356) identify as mestizos, 8.2% (n=32) as indigenous, 0.5% (n=2) as montubios, and 0.5% (n=2) as Afro-Ecuadorians. 63% (n=247) study in the morning, 32.1% (n=126) in the evening, 4.8% (n=19) at night. 80.1% (n=314) live with their parents, 19.9% (n=78) do not live with their parents. 90.8% (n=356) consider that university students do not have a good diet while 9.2% (n=36) consider that university students do have a good diet.

The variable "gender" was associated with "the schedule of university classes", where it was observed that 59.11% (n= 159) of the women chose "morning schedule", 36.43% (n=98) chose "evening schedule" and 4.46% (n=12) chose "evening schedule". Regarding men, 71.54% (n=88) of men chose "morning hours", 22.76% (n=28) chose "evening hours" and 5.69% (n=7) chose "night hours". A statistically significant difference was found ($p < 0.05$). Most men and women prefer to study in the morning.

The variable "gender" was associated with "the development of physical activity", where it was observed that 64.31% (n=173) of the women chose "no" and 35.69% (n=96) chose "yes". Regarding men, 30.08% (n=37) of men chose "no" and 69.92% (n=86) chose "yes". A statistically significant difference ($p < 0.05$) was found, where women were 0.78 more likely not to engage in physical activity than men.

The variable "self-identification" was associated with "the opinion about the diet of university students", where it was observed that 92.41% (n=329) of mestizo people chose "no" and 7.58% (n=27) chose "yes". Regarding minority groups, 75% (n=27) of minority groups chose "no" and 25% (n=9) chose "yes". A statistically significant difference was found ($p < 0.05$), where mestizos were 4.06 more likely to consider that university students do not have a good diet than minority groups.

The variable "gender" was associated with "the frequency with which they consume junk food", where it was observed that 1.86% (n=5) of women chose "always", 20.81% (n=56) chose "frequently", 74.35% (n=200) chose "rarely", and 2.97% (n=8) chose "never". Regarding men, 6.50% (n=8) of men chose "always", 29.27% (n=36) chose "frequently", 63.41% (n=78) chose "rarely" and 0.81% (n=1) chose "never". A statistically significant difference was found ($p < 0.05$). Most women consume junk food rarely and most men consume junk food frequently.

The variable "gender" was associated with "healthy food choices", where it was observed that 43.12% (n= 116) of women chose "yes option" and 56.88% (n=153) chose "no option". Regarding men, 48.78% (n=60) of men chose "option yes" and 51.22% (n=63) chose "option no". No statistically significant differences were found ($p > 0.05$). Most men and women are not responsible for making healthy food choices when it comes to eating.

In table number one, the gender variable was associated with body mass index, whose results show that poor diet does not influence their Body Mass Index (BMI).

Discussion

In this research it was found that most respondents prefer to study in the morning, live with their parents, consider that university students do not have a good diet, and believe that the reason for a poor diet is the lack of time, in addition they do not take care of healthy food choices at mealtime, However, he maintains that he rarely consumes junk food related to poor nutrition education, coupled with college schedules and lack of physical activity that affects his diet.

Poor diet is an issue that currently has greater importance, due to the consequences such as overweight and low academic performance that it produces. The population most exposed to this situation are young people, especially students due to the speed of growth of adipose tissue that is greater at an early age, in addition to the drastic changes they present in their lifestyle when entering university.(11)

Studies carried out in Spanish university students showed a high number of students with an unhealthy diet or need changes in their diet (12). Because only 15% of the total country consumes 5 or more fruits or vegetables during the day. Eating habits are acquired throughout life by each person, but inadequate habits due to lack or excess are related to numerous diseases such as: overweight, obesity and anemia.(13)

Likewise, 81.63% (n=320) of the respondents consider that another of the main reasons is the lack of time to feed that, added to the very long hours, make university students prefer junk food such as hamburgers and fries. Lack of time, academic pressure for their study schedules or other activities contribute to modify their quality and quantity of food and feeding schedules. (4)

Some university students present a very drastic change in their lifestyle, since they go from depending on their parents to perform daily activities, according to a study conducted by higher education institutions in Chile and other countries, they affirm that the nutritional behavior of each population is conditioned by various factors, such as the family environment, the socio-cultural and economic level and the geographical location. (14)

This study also found that 1.27% (n = 5) believe that poor diet is due to lack of income and lack of time, this due to the economic income of a person who directly influences the food they can acquire for consumption, students associate good and nutritious foods with prices out of reach; And in some cases lack of money or time leads them not to eat.(15)

The results show that only 0.50% (n=2) consider that one of the reasons is the stress and anxiety caused by academic responsibilities. College involves facing new experiences and changes that will increase the risk of presenting high levels of stress, tension, fatigue, overwhelm, and restlessness. (16)

In the Spanish Journal of Human Nutrition and Dietetics it is defined that weight is influenced by various social, economic and biological variables; such as the fact of being in a stage of development, so the body mass index (BMI) tends not to be in balance, although it is conditioned by height(17).

Physical activity is considered one of the main components to maintain good health, but university students report low levels of physical activity, in the survey noted the lack of physical activity 53.6% (n = 210) do not perform physical activity. According to the International Journal of Environmental Research and Public Health, men are more predisposed to physical activity while a higher proportion of women did not perform physical activity (18)

Conclusion

In conclusion, the nutritional conditions of university students in Ecuador are affected by poor diet, different schedules, lack of time and economic income added to the lack of physical activity brings with it a number of diseases such as overweight.

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Stalemate**Table 1:** Analysis of the variable sex with body mass index (BMI)

Results					
	Normal	Overweight	Obesity Grade I	Obesity Grade II	Total, rows
Female	74.72% (n=201)	20.45% (n=55)	4.45% (n=12)	0.37% (n=1)	269
Male	81.30% (n=100)	16.26% (n=20)	1.62% (n=20)	0.81% (n=1)	123
Total column	301	75	14	2	392(Total)

Results are not significant