Descriptive Analysis Of The Health Status Of University Students In The Health Field

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Abstract

Introduction: *Obesity has been declared a pandemic by the WHO, affecting public health systems. Mexico is no exception, with ENSANUT reporting an increase in the prevalence and incidence of overweight and obesity.*

This scenario does not exempt the young adult population, especially university students. Family history and clinical background are a way of assessing a student's risk of developing a chronic degenerative disease in the future.

Objective: *To conduct a descriptive analysis of nutritional health status, family history, and clinical background. Methodology: Based on Supo's taxonomy, this is a descriptive, analytical, observational, prospective study with a descriptive level of research.*

Results: *The average BMI of the sample evaluated showed that most of the population is obese, with the most frequently reported family history being DM2 and HBP.*

Conclusion: *The prevalence of overweight and obesity is high among university students, and the high prevalence of family history predisposes students to suffer from chronic degenerative diseases.*

I. Introduction

Body Mass Index (BMI) is considered a first-rate measure of body fat and a screening tool for the diagnosis of obesity and a risk factor for chronic degenerative diseases. It is important to mention that BMI is not an ideal measure of actual adiposity. The results obtained using BMI correlate positively with other markers of obesity, such as waist circumference and waist- to-hip ratio. (1) A person's BMI is extremely important as it helps us determine future health problems. It can relatively indicate the amount of body fat in a person's structure, but not the percentage of body fat. People with visceral obesity are at greater risk of multiple pathological conditions and have higher morbidity and mortality rates. (2)

The World Health Organization (WHO) considers chronic or noncommunicable diseases to be long-term and the result of a combination of genetic, physiological, environmental, and behavioral factors. Some risk factors for these diseases are unhealthy diets, physical inactivity, exposure to tobacco smoke, and harmful use of alcohol. Unhealthy diets and physical inactivity can manifest themselves in the form of high blood pressure high blood pressure, increased glucose, blood lipids, obesity, and high BMI are the so-called metabolic risk factors, which lead to cardiovascular diseases. (3)

Family history in terms of biological factors or genetic predisposition has been considered one of the predictive risk factors for chronic degenerative diseases, with a 50% hereditary component. In relation to obesity, there is a 30% probability if there is a family history. (4)

A large part of the population can reduce their risk of disease by eating a healthy diet, exercising regularly, and not smoking, but family history can be an influence on chronic degenerative conditions. No one can change their genetic makeup, but it is extremely important to know your family history as it helps us reduce the risk of developing health problems. (5)

Since family members share genes, as well as the environment, lifestyle, and customs, they may also share risk factors for developing diseases. Key factors in family history that can increase risk include: diseases that occur at an earlier age, diseases that appear in more than one close relative, and certain combinations of diseases within a family. People with a family history of certain diseases can reap incalculable benefits by changing their lifestyle and getting some routine screening tests (5).

II. Objective

To obtain a descriptive analysis of the health status of university students in the health field.

III. Methodology

Based on the methodology of Supo (2012), an analytical, cross-sectional, prospective, observational study was conducted with a descriptive level of research and a quantitative approach.(6) A sample of the health

sciences student population was taken, and to collect information, a Likert-type instrument was developed, which was divided by dimensions to collect information on history of obesity, diabetes mellitus, high blood pressure, heart disease, and nutritional health. In addition, through medical records, alterations in organs and systems were evaluated.

Validation was carried out under Supo's taxonomy (2017) to validate documentary instruments, analyzing them by construct (variances and correlations), as well as Cronbach's alpha test for reliability analysis. Tables with frequencies and percentages were used for the analysis of results.

IV.   Results

The results shown below are the product of a study conducted on university students in the health field. To obtain the results of the internal validation of the instrument, the variance of the items was first analyzed (Table 1), highlighting that items five and six have greater variability, while the rest of the items have a lower range of variance, yet still sufficient to continue with the validation.

Subsequently, a correlation analysis was performed, where first the scores of all dimensions were added to obtain a final test score. Once the correlation was performed, items two, three, and five had a moderate correlation, and only item six had a high correlation (Table 2). Finally, for validation, Cronbach's alpha test was used, giving an acceptable value.

Of the sample analyzed, 76 percent were women and 24 percent were men. The students who participated came from the fields of nursing, medicine, psychology, dentistry, optometry, and biology; of these, the most prevalent were psychology students, while the least represented were optometry students, most of whom were fourth-semester students.

Regarding the health status analysis, the anthropometric analysis shows that, on average, students have a BMI of 20; however, a maximum level of 40 was recorded, along with the waist and hip circumference measurements (Table 3). The analysis of family history showed a prevalence of 65.2% positive for obesity, which The analysis of family history showed a prevalence of 65.2% positive for obesity, which means that more than fifty percent of the sample surveyed has relatives with obesity. In contrast, the history of diabetes refers positively to 28.5%, meaning that more than a quarter of the sample has a history of the disease; the prevalence of SAH was 36.7%. A minority percentage reported being unaware of any of the types of history (Table 4). Finally, when quantifying the students' clinical history reports, the highest prevalence reported having none; however, more tan twenty percent of the students reported having some type of endocrine history (Table 5).

Descriptive statistics

Item	Variance
ITEM 1	.399
ITEM 2	.438
ITEM 3	.494
ITEM 4	.304
ITEM 5	2.613
ITEM 6	8.219

Table 1. Analysis of variance of the items, highlighting that items 5 and 6 are those with the greatest variance.

Final background information				
Rho de Spearman	ITEM 1	Correlation coefficient	.349***	LOW
		Sig. (bilateral)	<.001	
		N	158	
	ITEM 2	Correlation coefficient	.462***	MODERATE
		Sig. (bilateral)	<.001	
		N	158	
	ITEM 3	Correlation coefficient	.404***	MODERATE
		Sig. (bilateral)	<.001	
		N	158	
	ITEM 4	Correlation coefficient	.235***	LOW
		Sig. (bilateral)	0.003	
		N	158	
	ITEM 5	Correlation coefficient	.410***	MODERATE
		Sig. (bilateral)	<.001	
		N	158	
	ITEM 6	Correlation coefficient	.710***	HIGH
		Sig. (bilateral)	<.001	
		N	158	

Final background information	Correlation coefficient	1	
	Sig. (bilateral)		
	N	158	

Table 2. Correlation analysis of the items with the final score shows that only item six has a high level of correlation.

Descriptive statistics

N		Rank	Minimum	Maximum	Average	Standard deviation
User weight in kilograms	158	74.60	54.50	129.10	77.5690	12.89251
User height in meters	158	.42	1.41	1.83	1.6106	.08140
Body Mass Index (kg/m2)	158	20.30	22.15	42.45	29.9601	3.71967
Waist measurement in centimeters	158	132.0	.0	132.0	92.565	14.8175
Hip measurement in centimeters	158	137	0	137	105.09	14.803
Waist-to-hip ratio	158	1.21	.00	1.21	.8664	.13076
Valid N (by list)	158					

Table 3. Descriptive analysis of student anthropometry.

Family history of obesity

	Frequency	Percentage
Positive	103	65.2
Negative	43	27.2
Unknown	12	7.6
Total	158	100.0

Family history of type 2 diabetes

	Frequency	Percentage
Positive	45	28.5
Negative	87	55.1
Unknown	26	16.5
Total	158	100

Family history of hypertension

	Frequency	Percentage
Positive	58	36.7
Negative	74	46.8
Unknown	26	16.5
Total	158	100

Family history of heart disease

	Frequency	Percentage
Positive	13	8.2
Negative	106	67.1
Uknown	39	24.7
Total	158	100

Table 4. Descriptive analysis of the background information reported by students, regarding obesity, T2DM, SAH, and heart disease.

Personal pathological history by system

	Frequency	Percentage
Musculoskeletal	2	1.3
Cardiovascular	8	5.1
Respiratory	3	1.9
Nervous	2	1.3
Digestive	4	2.5
Endocrine	34	21.5
Reproductive	1	.6
Negated	104	65.8
Total	158	100.0

Table 5. Descriptive analysis of the history reported by students regarding conditions affecting organs and systems, highlighting a higher prevalence of endocrine conditions

V. Discussion

Obesity has become a public health problem worldwide. By 2022, the World Health Organization (WHO) reported that 2.5 billion adults were overweight and 890 million were obese. (7)

In Mexico, ESANUT (2020-2023) reported that 37.1% of the Mexican population is obese. In rounded numbers, the average BMI of the sample was thirty, which indicates that most of the sample is obese. These data are related to those reported by ENSANUT, since a large segment of the sample evaluated shows a high rate of overweight or obesity. (8)

It is noteworthy that university populations have an increasingly higher prevalence of obesity, while the prevalence of DM2 and SAH is lower than in other studies, in which these conditions exceed fifty percent of the population, being more significant in women than in men.(9)

The significant danger in overweight and obesity with a family history is the predisposition to suffer from these diseases. Metabolic disorders are becoming increasingly acute in university age adults. Academic workloads, as well as a significant change in dietary habits, have increased the incidence of overweight and obesity. In addition to this, we must remember that ENSANUT shows us an increase in the prevalence of obesity, which has a high correlation with SAH and DM2. Therefore, many students have family members at home with this history, which increases the likelihood of developing chronic diseases at an earlier age.(10, 11, 12)

VI. Conclusion

University life represents a significant challenge for students, changes in hygiene and dietary habits due to the complexity of academic life have a high degree of correlation. Added to this, the state of health with which students enter university, as well as their family history, increases the risk of suffering from chronic degenerative diseases in the short term. The objective of this study was to conduct a descriptive análisis of nutritional health status, family history, and clinical history. As shown in the results, the highest prevalence was obtained for the degree of obesity, results that are consistent with those reported by the National Health and Nutrition Survey. Regarding family history, the highest prevalence was for DM2 and SAH. These results demonstrate that there is a high predisposition to developing chronic diseases in the sample analyzed. It is important to mention that this study did not evaluate the correlation between nutritional status and hereditary and clinical history. Therefore, it is important to continue studying these factors. The results obtained in this study show that the prevalence of chronic diseases in the sample analyzed is high. It is important to mention that this study did not evaluate the correlation between nutritional status and hereditary and clinical history. Therefore, it is important to continue studying these factors.

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