Journal of Sport Science Technology and Physical Activities
ISSN : 1112-4032
eISSN 2543-3776

VOL: 22 / N°: 1 June (2025), p:140-150

Study of the level of health and food culture among students of the Institute of Physical and Sports Education (Universitry of Chlef)

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ARTICLE INFORMATION
Original Research Paper
Received : 23/01/2025.
Accepted : 05/02/2025
Published :01/06/2025

doi.org/10.5281/zenodo.15368278

Keywords:
Food culture, health culture, students.

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Abstract

The objective of this study is to identify the level of food and health culture among students,A questionnaire was distributed to (281) students selected from three departments of the IEPS of the Chlef university (UHBC), namely the Department of Sports Training, Sports Management and Educational Physical Activity. The results of this study showed that there were no statistically significant differences by gender, while the differences were statistically significant at the level of food and health culture by training specialty. According to the results of this study, researchers recommend organize study days and conferences on the promotion and awareness of food culture and health.

1. Introduction

The current health crisis has shown how much food contributes greatly to conveying well-being; it has been at the heart of many changes in household practices. Covid-19 has raised awareness of the need to take greater account of students' well-being. Various studies highlight that students are not sufficiently aware of the contribution of food to their well-being. They often have limited culinary skills, tight budgets and a lack of time to prepare meals. They often do not see the usefulness of spending time preparing meals and prefer to devote this time to studies and/or leisure. They then frequently resort to inexpensive and ultra-processed products (Gourmelen, Rodhain & However, 2016), it is clear that few academic contributions have been devoted to understanding the dietary well-being of students. There is a real problem that crystallizes in the spread of many bad eating habits and behaviors that, in turn, contribute to the emergence of many health problems, such as not having breakfast and eating fast food in restaurants saturated with oils, fats and foods, full of preservatives that increase the percentage of toxins in the body and cause diseases dangerous to health, such as obesity. Studies have shown that if malnutrition and unhealthy diet are not treated, they can lead to mental or physical disability.

Therefore, healthy eating behaviors are necessary in the life of any individual, but more important for those who practice organized sports activity, which requires greater attention to sports nutrition as an essential element to avoid serious diseases (Croll et al, 2006). Which leads us to ask the following general question:

What is the level of health and food culture among students of the Chlef university?

2. Method and Materials

- **Definitions of the variables used in the study**: We operationally define health culture as students' knowledge and understanding of health literacy and its impact on their attitudes toward certain health-related issues, which positively reflects on their health behavior.

We operationally define food culture as the extent to which university students know food-related information and adjust their attitudes toward healthy eating habits.

- Methodology of the study:

The descriptive method was used because of its suitability to the nature of the subject.

- Participants

The study population was intentionally selected from second and third year undergraduate students at the UHBC, which included (283) male and female students for the 2023/2024 academic year (Table 1).

Table 1. Shows the characteristics of the sample according to the study variables:

Departments	Level			
	Second year degree		Third year degree	
	Boys	Girls	Boys	Girls
Educational sports physical activity	43	14	31	07
Sports training	66	06	24	03
Sports administration and management	24	02	55	08
S/total	133	22	110	18
Total	283			

- Materials

In this study, the questionnaire was used to determine the level of health culture and food culture among students of the Chlef university (UHBC)

- Questionnaire stability

To calculate the stability of the questionnaire, Cronbach's alpha equation was used, where the reliability coefficient reached (0.86) for the health culture dimension and (0.85) for the food culture dimension, as shown in table (02).

Table 2. Stability coefficient

Questionnaire	*Cronbach alpha coefficient*
Health culture dimension	*0.86*
Food culture dimension	*0.84*

- Questionnaire validity

The questionnaire that determines the level of health culture and food culture among students of the Chlef University was presented to a group of teacher-researchers. We took the answers that exceeded (80%), and excluded those that were lower than (80%).

- Design and Procedure

After verifying the stability and credibility of the questionnaire, it was distributed to the study sample in April 2024.

-Statistical Analysis

The SPSS statistical program was used:

- Percentages and arithmetic mean
- Student's T to calculate the differences in the sex variable.
- Anova test to calculate the significance of the differences between the variables.

3. Results

Students UHBC university have an average level of knowledge in health culture and food culture.

Table 3. level of food culture among students of the UHBC (n=283).

Number	Items	Percentages	Level of food culture
01	I am interested in making my daily diet complete	72.8	High
02	I drink more cold drinks between main meals	69.3	Medium
03	I drink more coffee or tea to help me concentrate	58.9	Low
04	I focus on knowing the basic foods that give me nergy	71.4	High
05	I eat foods that do not make me gain weight	54.7	Low
06	I eat more fresh fruits and vegetables	73.4	high
07	I try to stay away from fatty foods and prefer to cook	63.9	Medium
08	Respect the times and number of basic meals per day	48.8	Very low
09	I am careful to read the components of foods before buying them	49.7	Very low
10	I count the calories in my meal	41.5	Very low
11	I make sure to eat snacks between main meals	74.6	High
12	I eat mainly fast food	76.8	High
13	I eat late at night	64.7	Medium
14	I do physical and sporting activity after eating for a certain period	66.4	Medium
15	I drink all kinds of energy drinks	81.2	Very high
16	I eat sweets in moderation because they are good for my health	42.3	Very low
17	I pay attention to the type and amount of food I eat before and after physical exercise	64.8	Medium
18	I pay attention to the type and amount of drinks before and during sporting activity	65.2	Medium
19	I make sure to drink milk daily because it is rich in calcium	71.4	High
20	I eat quickly	68.7	Medium
21	I avoid bad eating habits that spoil the process of digestion and absorption of food, such as: carbonated drinks	72.1	High
22	I pay attention to how to prepare food in a way that preserves its nutrients	64.3	Medium
23	I eat foods that contain spicy ingredients	61	Medium
24	I eat foods that contain fat	67.2	Medium
25	I make sure to diversify the main meals that I eat daily	73	High
26	I make sure to eat fish at least once a week	69.8	Medium
27	I buy meals at restaurants	57.9	Low
Level of food culture among students of the Institute of Physical Education and Sports		**64.65**	Medium

According to the results of table 3, it appears that the level of food culture among the students of the UHBC is very high (item 15) with a percentage of 81.2%, and high in items (01, 04, 06, 11, 12, 19, 21, and 25) with a rate between (71.4% - 76.8%), and an average level in items (02, 07, 13, 14, 17,

18, 20, 22, 23, 24, and 26) with rates between (61%-69.8%), and a low level in items (03, 05, and 27), with a rate between (54.7%-57.9), and a very low level in items (08, 09, 10, and 16) with a rate that varies between (41.5% - 49.7%).

As a result, the overall level of food culture was average among students of the U Chlef with a rate reaching (64.65%).

Table 4. level of health culture among students of U Chlef (n=283).

Number	Items	Percentages	Level of food culture
01	I pay attention to getting enough sleep and rest	76.4	High
02	I protect my eyes by not using digital and digital devices for a long time	61.9	Medium
03	I pay attention to my personal hygiene (bathing), especially after practicing physical and sports activities	81.2	Low
04	I pay attention to the choice of my sports clothes, making them suitable for the temperature, and the type of activity practiced	75.1	High
05	I prefer to live in a clean and healthy house with good ventilation and sunlight	78.2	Low
06	I take care to cut my fingernails and toenails whenever necessary	82.7	high
07	I prefer walking to do my daily activities at university and outside of university	60.8	Medium
08	I prefer to spend my time outside of university to participate in sports activities	78.6	Very low
09	I make sure to have regular medical and periodic check-ups	54.3	Very low
10	I am careful not to eat food exposed to heat	52.5	Very low
11	I make sure not to put my mobile phone outside the room while I sleep	43	High
12	I make sure not to heat food in a plastic container	81.2	High
13	I am careful not to smoke	80.7	Medium
14	I pay attention to the production and expiration dates of food before buying it	69.7	Medium
15	I make sure to pick up objects from the ground in the right way	64.3	Very high
16	I avoid applying makeup and hairspray when I do sports	42.1	Very low
17	je m'assure bien de mâcher les aliments avant de les avaler	72.7	Medium
18	I avoid talking while eating	81	Medium
19	I make sure to follow the nutritional guidance programs	45.6	High
20	Je veille à manger des fruits avant de manger	42.3	Medium
21	I prefer to eat brown bread rather than white bread	36.7	High
22	I take my medications according to the doctor's instructions and advice	84.1	Medium
23	I want to lose weight without following a healthy diet thanks to a nutrition specialist	71.8	Medium
24	I follow healthy posture habits	65.2	Medium
25	Obesity is the root cause of modern diseases	74.9	High
26	I make sure to take nutritional supplements	67.3	Medium
27	I avoid using beverage containers more than once for different purposes	87.8	Low
Level health culture among students of the Institute of Physical Education and Sports		**67.12**	Medium

According to the results of table (04), it appears that the level of health culture among students of the UHBC very high in items (03, 12, 13, 18, 22, and 27), with a percentage between (80.7-87.8%), and high in items (01, 04, 06.05, 08, 17,, 23, and 25) with a percentage between (71.8% - 82.7%), and an average level in items (02, 07, 14, 15, 24, and 26) with a percentage that varies between (60.8% - 69.7%), and a low level in items (09, and10) with rates between (52.5 - 54.3%) and a very low level in items (11, 16, 19, 20, and 21) with a percentage between (36.7% and 45.6%).

As a result, the overall level of health culture was average among students of the Institute of Physical Education and Sports, with a percentage of (67.12%).

- Presentation and analysis of the results of the second hypothesis which states:

There are differences in the level of food and health culture of students of the departments STAPS of the UHBC according to the gender variable.

Table 5. Results of the T-test for two independent groups to indicate the differences in the level of food culture and health culture among students of the Institute of Physical Education and Sports according to the gender variable (n=283)

Variables	Students (boys) n=243		Students (girls) n=40		Value (t)	Level of Significance
	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation		
Food culture	2.79	0.48	2.54	0.35	-1.786	0.039 *
Health culture	2.34	0.27	2.95	0.56	-0.004	0.065

*****Statistically significant at the significance level ($\alpha \leq 0.05$) ,degrees of freedom (345), tabular value (t) (1.625)

The results of table 5. show that there are no statistically significant differences at the level of significance ($\alpha \leq 0.05$) in the level of health culture among students of the UHBC according to the gender variable, while the differences were statistically significant in the level of food culture between male and female students and in favor of male students.

- Presentation and analysis of the results of the third hypothesis which states:

There are differences in the level of health culture and food culture among students of the departments of the Chlef University, according to the specialty variable.

Table 6. Results of the T-test for two independent groups to indicate the differences in the level of food culture and health culture among students of the STAPS (UHBC) according to the gender Variable (n=283)

Specialization / Variable	Educational sports physical activity n = 95		Sports training n = 99		Sports administration and management n= 89	
	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation
Food culture	2.45	0.56	2.89	0.78	2.24	0.47
Health culture	2.34	0.38	2.56	0.49	2.31	0.29

Table 7. One-way analysis of variance for calculating differences in the level of food culture and health culture among students of the STAPS (UHBC) according to the specialty variable (n=283)

Variables	Source of deviation	Sum of squares of deviation	Degrees of freedom	Means	Value(f)	Level of significance
Food culture	Between groups Within groups Total	12. 265 135.378 147.643	3 127 130	4.178 0.135	19.248	0.000*
Health Culture	Between groups Within groups Total	7.562 112.235 119.797	3 127 130	2.165 0.183	10.516	0.000*

*Statistically significant at the significance level (α≤0.05)

The results in table 7 indicate that there are statistically significant differences at the significance level (α≤0.05) in the level of food culture and health culture among students of the Institute of Physical Education and Sports due to the specialty variable to determine in favor of whom these differences are, the Scheffe test was used between the arithmetic means, as shown in the results of the table 8.

Table 8. Results of the Scheffe test between the means of the level of food culture and health culture among students of the Institute of Physical Education and Sports according to the variable of academic specialty.

Variables / Speciality	Average	Educational sports physical activity n= 95	Sports training n= 99	Sports administration and management n= 89
Food culture	2.45		- 0.88*	-0.16
	2.89			0.58*
	2.24		-0.56	
Health Culture	2.34		- 0. 47*	-0.15
	2.56			0.38*
	2.31			

The results of table 8 show that there are statistically significant differences in the level of food culture and health culture among students of the STAPS (UHBC), in favor of students of the sports training specialty.

4. Discussion

The reason why the level of food culture of the students obtains an average percentage in most of the items of the scale is due to the lack of interest in the importance of a balanced diet. This may also be due to the lack of academic modules in the institute that focus on food, except for sports training students. This aspect has side effects on their daily eating behavior, and pushes them to eat junk food at the university or even outside due to lack of time and the intensity of their study program. The results of this study were inconsistent with those of (Denny & Dunn, 2007) who showed a decrease in the percentage of food literacy level among students, and inconsistent with those of the study of Al-Qudomi (2005) and Al-Ashqar (2008), which showed a high level of awareness of health culture. Healthy eating habits have an impact on daily life and even on individual eating behavior and tendencies (Hadly, 2008).

Most of the items related to the level of health culture were average, and according to the researcher attributes this to the lack of television channels or media that are interested in health issues and health habits

of students in university residences or at the university in general, as well as the lack of programs related to health education within the training of students (wardla et al, 1997).

The results of this study were consistent with the results of Manas Mishaal, Walid Al-Rahahla (2012) at the level of food culture among students in favor of male students and this is explained by the fact that boys give importance to their physical and aerobic fitness which leads them to follow healthy eating habits.

This is because athletic training students take courses related to sports nutrition in their training, and participating in regular physical activity can reduce the risk of almost all major chronic diseases (Harter, 2021).

5. Conclusion

The research sample was characterized by an average level of food culture and health culture.

- Students of the STAPS have an average level of health culture and food culture
- There is no difference in the level of food culture and health culture between students according to the gender variable.
- The level of health culture does not differ between male and female students, but there is a difference in the level of nutritional culture between male and female students, in favor of male students.
- There is a difference between the level of food culture and health culture among students and in favor of students of the sports training department.

Based on the results of this study, the researchers recommended the following:

- Emphasize the need to introduce courses on health and nutrition aspects in the training programs of physical education and sports students.
- Raise awareness among students of the UHBC University about health and healthy nutrition.
- Organize study days and symposia on the promotion and awareness of culture and health.
- Develop studies to determine health and nutrition problems among students.

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