International Journal of Midwifery and Nursing Practice

E-ISSN: 2663-0435
P-ISSN: 2663-0427
www.nursingpractice.net
IJMNP 2025; 8(1): 154-158
Received: 14-03-2025
Accepted: 17-04-2025

Hiyam Mohsin Azooz
Department of Community Health Nursing, University of Kufa, Faculty of Nursing, Iraq

Corresponding Author:
Hiyam Mohsin Azooz
Department of Community Health Nursing, University of Kufa, Faculty of Nursing, Iraq

The relationship between dietary habits and physical activity among nursing students

Hiyam Mohsin Azooz

DOI: https://www.doi.org/10.33545/26630427.2025.v8.i1c.200

Abstract
The multifaceted, multidimensional integration of social and environmental factors that affect our patterns of physical activity and eating leads to obesity, which is avoidable. The study's objectives were to evaluate undergraduate nursing students' eating patterns and levels of physical activity and ascertain how these factors relate to one another.
Design of the study: The study's descriptive cross-sectional methodology was created to achieve the aforementioned goals. The study will take place between November 1, 2022, and April 20, 2023.
Study sample: For this study, a convenience sample of one hundred participants was selected.
Result: According to the current study, approximately 43% of the students often eat breakfast, 86% utilize plant oil, 49% eat twice a day, and 39% drink four to five glasses of water each day. Additionally, data showed that almost 63% of the pupils ate vegetables once a day, 57% ate fruits once a day, 59% ate fruits once a day, 88% drank milk once a day, 60% ate carbohydrates once a day, and 51% drank lipids once a day.
Conclusion: The study found that most students eat breakfast most of the time, utilize plant oil, eat twice a day, and drink four to five cups of water each day. Fruits, vegetables, milk, carbs, and fats are consumed by most pupils once a day. Most kids engage in physical activity for 10 to 30 minutes a week, play sports, and undertake light workouts. Participating in athletics has been linked to students' dietary habits, including the quantity of water, cups, and fruits they consume. There is a correlation between students' lipid-based eating habits and the number of weeks they spend participating in sports.

Keywords: Dietary habits, physical exercise, students

Introduction
A balanced diet is always evolving to reflect our growing understanding of the functions that various foods, important nutrients, and other food components play in health and disease. A substantial and growing amount of research suggests that consuming certain nutrients, food groupings, or overall dietary patterns improves health and increases the avoidance of prevalent noncommunicable diseases. Certain regional cuisines are characterized by higher consumption of health-promoting foods and lower consumption of unhealthy ones [1].
Given the concurrent rise in the incidences of obesity and diabetes and the excessive desire among young people to lose the weight through eating unhealthy diets, lifestyle-related health issues among young people in wealthy nations have become more complex. University pupils are a particularly difficult group to reach because of their hectic schedules and the recently accessible activities tied to college life [2].
Fast food consumption has been associated with a diet that is "high in calorie intake, sugar, saturated fat, and sodium, and also with excess body fat, gaining weight, and higher body mass 9 index," which can have an impact on one's health. When these dietary elements are combined with a sedentary lifestyle, health issues may result [3].
Students benefit much from physical activity, especially those in college. It is related to college students based on their academic success. In general, students who regularly exercise maintain their physical and mental strength. Higher performance achievement is correlated with college students' mental health, and regular physical activity might support mental health. Thus, there is a connection between students' mental health and physical activity [4].
The period that you spend at campus are a crucial time that can have a lasting effect on eating patterns and lifestyle standards. Youth' present health is impacted by improper nutrition and a lack of movement, which also puts their eventual adult health at risk [5].

Importance of the study

Being a fourth leading cause of mortality, physical inactivity is currently one of the biggest modifiable risk behaviors. Chronic illnesses linked to physical inactivity claim the lives of almost 3.2 million individuals annually [6].

The complicated, multidimensional combination of environmental and social variables that affect our patterns of physical activity and eating leads to obesity, which is avoidable. Because of the absence of supportive legislation, an obesogenic atmosphere has been created that makes it difficult for others to decide on healthy decisions [3].

Methodology

Study Design: A descriptive cross-sectional design was employed in order to achieve the goals of the study. The study conducted from November 1, 2023, until April 20, 2024.

Administrative Agreements: It is among the most moral rules to follow before gathering data in order to safeguard members' values. With permission from Kufa University's College of Nursing, researchers carried out the investigation. The Ethics Committee of the Faculty of Nursing came to a different conclusion. obtained formal clearance from the University of Kufa's College of Nursing's community health nursing department. Furthermore, subject approval was obtained. The researcher begins by outlining the fundamentals of the study as well as its associated goals and aims. Additionally, the subjects were told that they might withdraw from the interview at any point if they so desired.

- **Setting of the Study:** This study was conducted in Faculty of Nursing / University of Kufa.
- **Study Sample:** A convenience sample of (100) subjects was taken in this study.

The Study Instrument

To determine the study's goals, the researchers used the following questionnaire, which contained the following information: 1. Sociodemographic information about the subjects (Ag/Years, stage, gender, marital status, monthly income, and BMI) 2. Dietary practices and physical activity (dietary pattern, daily intake, daily fluid intake, weekly sugar intake, and degree of physical activity)

Data Collection

An advanced tool is used to collect data with the use of structured interviews, and the researcher uses the Arabic text of the instrument for all participants in the study samples. Data is gathered between October 15 and 26, 2023. It takes each participant eight to ten minutes to complete the interview.

Statistical analysis: The following statistical approaches were used in order to analyze the data of the study under application of the statistical package Mega stat (version 2005):

Descriptive Data Analysis

Tables (Frequencies, Percentages) and figures.

Inferential Data Analysis

This approach used to test the statistical hypothesis, which includes Chi Square was used for testing the relationship between the study variables.

The study Results and the findings

Table 1: descriptive statistical data (frequency and percentage) of students by their demographic data

Items Sub-groups Study group (Total = 100)		Statistics	
		Frequency (N=100)	Percentage
Age / Years	17-23	93	93.0
	24-30	4	4.0
	≥ 31	3	3.0
Gender	Male	27	27.0
	Female	73	73.0
Marital Status	Single	95	95.0
	Married	5	5.0
Stage	First	32	32.0
	Second	25	25.0
	Third	18	18.0
	Fourth	25	25.0
BMI	Underweight	4	4.0
	Normal	72	72.0
	Overweight	0	0.0
	Obese	24	24.0
Family Income	Enough	70	70.0
	Somewhat Enough	26	26.0
	Not Enough	4	4.0
Chronic Disease diseases	DM	2	2.0
	Anemia	19	19.0
	Hypertension	3	3.0
	Cardiac	1	1.0
	Other	11	11.0
	None	64	64.0
Current Health Status	Excellent	15	15.0
	Good	80	80.0
	Bad	5	5.0

Table (1) represents the statistical summary of the study sample demographic data. show statistical distribution of study sample by their socio-demographic data, it explains that the highest percentage of the students' subgroup are: students with ages between (17-23) years old (93%), female students (73%), single students (95%), those with normal BMI (72%), those with sufficient monthly income (70%), those with no chronic disease (64%), those with good health (80%).

Table 2: Descriptive statistics (frequency and percentage) of students' nutrition style

Items		Statistics	
		Frequency (N=100)	Percentage
Having Breakfast	Usually	43	43.0
	Sometimes.	46	46.0
	Never	11	11.0
Cooking Oil	Plant Oil	86	86.0
	Butter.	2	2.0
	Margarine	4	4.0

	Animal Oil	8	8.0
Number of Meals	1	4	4.0
	2.	49	49.0
	3	38	38.0
	4	6	6.0
	5	2	2.0
	> 5	1	1.0
Water Amount/ No. of Cups	1-3	27	27.0
	4-5	39	39.0
	6-8	23	23.0
	> 8	11	11.0

Table (2) reveals the descriptive statistics (frequency and percentage) of students' students' nutrition style. It shows that about (43%) of the students usually having breakfast, and (86%) of them use plant oil, (49%) have meals twice a day, and (39%) drink (4-5) cups of water daily.

Table 3: Descriptive statistics (frequency and percentage) of students' daily meals

Items		**Descriptive Statistics**	
		Freq.	**%**
Vegetables	One	63	63.0
	Twice	31	31.0
	3	6	6.0
Fruits	One	57	57.0
	Twice	35	35.0
	3	8	8.0
Proteins	One	59	59.0
	Twice	31	31.0
	3	9	9.0
	≥ 4	1	1.0
Milk	One	88	88.0
	Twice	7	7.0
	3	4	4.0
	≥ 4	1	1.0
Carbohydrates	One	60	60.0
	Twice	31	31.0
	3	8	8.0
	≥ 4	1	1.0
Lipids	One	51	51.0
	Twice	33	33.0
	3	10	10.0
	≥ 4	6	6.0

Concerning table (3) is about descriptive statistics (frequency and percentage) of students' daily meals. It shows that about (63%) of the students daily having vegetables once daily, and (57%) of them daily having fruits once daily, (59%) having fruits once daily, (88%) of them having milk once daily; (60%) of them having carbohydrates once daily and (51%) having lipids once daily.

Table 4: Descriptive statistics (frequency and percentage) of students' physical activity

Items.		**Descriptive Statistics**	
		Freq	**%**
Playing Sports	Yes	59	59.0
	N o	41	41.0
Frequency of sports	Daily	33	33. 0
	Weekly	38	38.0
	Monthly	29	29.0
Exercises	Mild	72	72. 0
	Moderate	28	28.0
	Strong	0	0.0
Duration/ per weeks	10-30Min	78	78.0
	One Hr.	22	22.0
	>1 Hr.	0	0.0

Table (4) is descriptive statistics (frequency and percentage) of students' physical activity. It shows that about (59%) of the students playing sports, and (38%) of them playing sports weekly, (72%) doing mild exercises, (78%) of them having physical activity between 10-30 minutes.

Table 5: Association between playing sports and students' nutrition habits

Demographic data	Chi Square	df	P value.	Sig.
Having Breakfast	3.71	2	0.15	NS
Cooking Oil	3.54	4	0.47	NS
No. of Meals	4.32	5	0.50	NS
Water Amount/ No. of Cups	17.78	3	0.00	HS
Vegetables	4.49	2	0.10	NS
Fruits	7.99	2	0.01	HS
Proteins	2.8	3	0.42	NS
Milk	5.41	3	0.14	NS
Carbohydrates	2.0	3	0.57	NS
Lipids	1.96	3	0.58	NS

df= degree of freedom; NS: Non-significant at P value >0.05; HS: High Significant at P value<0.01

Concerning table (5), it shows the association between playing sports and students' nutrition habits. It shows that there is a non-significant association (*P*>0.05) between playing sports and students' nutrition habits except with water amount/ No. of Cups and fruits.

Table 6: Association between frequency of sports and students' nutrition habits

Demographic data	Chi Square	df	P value	Sig.
Having Breakfast	3.95	4	0.41	NS
Cooking Oil	4.66	8	0.79	NS
No. of Meals	6.75	10	0.74	NS
Water Amount/ No. of Cups	7.98	6	0.23	NS
Vegetables	12.53	4	0.01	HS
Fruits	15.33	4	0.00	HS
Proteins	3.43	6	0.75	NS
Milk	3.48	6	0.74	NS
Carbohydrates	4.17	6	0.65	NS
Lipids	11.72	6	0.06	NS

df= degree of freedom; NS: Non-significant at P value >0.05; HS: High Significant at P value <0.01

Regarding table (4.6), it shows the association between frequency of sports and students' nutrition habits. It shows that there is a non-significant association (*P*>0.05) between frequency of sports and students' nutrition habits except with vegetables and fruits.

Table 7: Association between exercises and students' nutrition habits

Demographic data	Chi Square	df	P value	Sig.
Having Breakfast	0.46	2	0.79	NS
Cooking Oil	7.62	4	0.10	NS
No. of Meals	9.41	5	0.09	NS
Water Amount/ No. of Cups	4.12	3	0.24	NS
Vegetables	0.57	2	0.75	NS
Fruits	0.89	2	0.63	NS
Proteins	1.69	3	0.63	NS
Milk	4.91	3	0.17	NS
Carbohydrates	1.27	3	0.73	NS
Lipids	1.82	3	0.60	NS

df= degree of freedom; NS: Non-significant at P value >0.05

Regarding table (7), it shows the association between exercises and students' nutrition habits. It shows that there is a non-significant association (*P*>0.05) between exercises and students' nutrition habits.

Table 8: Association between duration of sports/ per weeks and students' nutrition habits

Demographic data	Chi Square	df	P value	Sig.
Having Breakfast	1.39	2	0.49	NS
Cooking Oil	1.03	4	0.90	NS
No. of Meals	5.01	5	0.41	NS
Water Amount/ No. of Cups	6.36	3	0.09	NS
Vegetables	5.01	2	0.08	NS
Fruits	1.52	2	0.45	NS
Proteins	0.63	3	0.88	NS
Milk	1.61	3	0.65	NS
Carbohydrates	1.54	3	0.67	NS
Lipids	9.05	3	0.02	S

df= degree of freedom; NS: Non-significant at P value >0.05; S: Significant at P value <0.05

Regarding table (8), it shows the association between duration of sports/ per weeks and students' nutrition habits. It shows that there is a non-significant association (*P*>0.05) between duration of sports/ per weeks and students' nutrition habits except with lipids.

Discussion of the Study Results

The results of the current investigation have It reveals that approximately 43% of the students often eat breakfast, 86% utilize plant oil, 49% eat twice daily, and 39% consume four to five glasses of water each day. This finding is consistent with that of Salih (2009), who discovered that roughly 67% of samples eat breakfast daily. Sixty-two percent of the samples drink beverages daily, and 51 percent of the samples eat snacks (an extra meal) in between their main meal [7].

However, Kadhum (2013) discovered that approximately 25.9% did not consume milk or dairy products on a daily basis, 77.8% ate a high-fat diet three times or fewer per day, and more than 28% drank soda or sweetened soft drinks more than three times per day [8].

According to the results of the current study, roughly 63% of the students eat vegetables once a day, 57% eat fruits once a day, 59% eat milk once a day, 60% eat carbohydrates once a day, and 51% eat fats once a day. These findings are consistent with those of Salih (2009), who discovered that a significant portion of samples consumed fruits, vegetables, and milk and its derivatives daily as dietary sources; the corresponding percentages were 47%, 67%, and 78%. According to Hussein (2011), overweight students were more likely than other students to eat fruits every day, and roughly 26.53% of them drank milk every day [9].

According to the current study's findings, there is a substantial (*P*>0.05) correlation between students' participation in sports and their dietary practices, specifically with regard to the quantity of water, cups, and fruits they consume. The current study also found a significant (*P*>0.05) correlation between students' dietary habits regarding fruits and vegetables and how often they participate in sports. Additionally, the current study discovered a substantial (*P*>0.05) correlation between students' lipid-related dietary habits and the amount of time they spend participating in sports each week. According to Molan (2019), students may not have adopted the proper eating habits as a result of the sufficient nutritional knowledge that was seen [10]. In Bangkok, Thailand,

university students' dietary practices and levels of physical activity are examined by Kiebuł *et al*. (2022). The results of this study demonstrated that most participants largely adhered to Thailand's national dietary and exercise guidelines. Additionally, he discovered that children who were more physically active had better eating habits and were more conscious of the concepts of good eating than those who were less active [11].

Compared to American college students, Thai students were found to be more active and less sedentary, according to the current study. However, according to Nelson *et al*. (2008), American students are twice as sedentary as Thai students.

According to a study, organized, required physical activity can help to stimulate exercise and improve excellent health [9].

Conclusion

According to the study's findings, most students typically eat breakfast, utilize plant oil, eat twice a day, and use four to five cups of water each day. The majority of pupils consume fruits, vegetables, milk, carbs, and fats once a day. Most students participate in sports on a weekly basis, engage in light exercise, and spend 10 to 30 minutes moving around. Playing sports is linked to students' dietary habits, including how much water they drink, how many cups they use, and how many fruits they eat. Lastly, there is a correlation between the number of weeks that students participate in athletics and their lipid-related eating behaviors.

References

1. Cena H, Calder PC. Defining a healthy diet: evidence for the role of contemporary dietary patterns in health and disease. Nutrients. 2020;12(2):334.
2. Watanabe-Ito M, Kishi E, Shimizu Y. Promoting healthy eating habits for college students through creating dietary diaries via a smartphone app and social media interaction: Online survey study. JMIR mHealth uHealth. 2020;8(3):e17613.
3. Xue H, Maguire RL, Liu J, Kollins SH, Murphy SK, Hoyo C, *et al*. Snacking frequency and dietary intake in toddlers and preschool children. Appetite. 2019;142:104369.
4. Abraham S, Noriega BR, Shin JY. College students' eating habits and knowledge of nutritional requirements. J Nutr Hum Health. 2018;2(1):1-5.
5. İkİişik H. Assessment of healthy lifestyle behaviors among first-year medical, dentistry and health sciences students in Turkey. Pusat Perubatan Universiti Kebangsaan Malaysia. 2021;1(1):1-6.
6. World Health Organization (WHO). Lifestyle practices among university students in University Brunei Darussalam. Malays J Med Sci. 2018;25(3):56-66.
7. Salih IAH. A study of the nutritional behavior and body mass indexes for students of age (17-25) years in Baghdad, Iraq. Baghdad Sci J. 2009;6(3):480-487.
8. Kadhum MJ. The study of unhealthy eating habits among secondary schools students in Babel Governorate. Mustansiriya Med J. 2013;12(1):1-6.
9. Hussein KA. Eating habits of secondary school students in Erbil city. Kufa J Nurs Sci. 2011;1(1):7-16.
10. Molan JA. Dietary habits and nutritional knowledge among high health institute students in Basrah. Med J Basrah Univ. 2019;37(2):89-90.
11. Kiebuł P, Tomczyk K, Furman J, Labuz-Roszak B, *et al*. Association between eating habits and physical activity in primary school students. Wiad Lek. 2022;73(10):2120-2126.
12. Grygiel-Górniak B, Tomczak A, Krulikowska N, Przysławski J, Seraszek-Jaros A, Kaczmarek E. Physical activity, nutritional status, and dietary habits of students of a medical university. Sport Sci Health. 2016;12:261-267.

How to Cite This Article
Azooz HM. The relationship between dietary habits and physical activity among nursing students. International Journal of Midwifery and Nursing Practice. 2025;8(1):154-158.