



Assessment of Nutritional Awareness and Behavior Among Students in the College of Sports Science at the Arab American University: A Comprehensive Analysis of Dietary Habits and Health Consciousness

Islam Abbas, Hasan Joudallah

Hasan.joudallah@najah.edu, Islam.abbas@aaup.edu

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Abstract:

The study aimed to determine the level of nutritional awareness and behavior among students of the Faculty of Sports Science at the Arab American University. To achieve this, the researcher employed the descriptive survey method due to its suitability and the nature of the study. The study sample consisted of 68 students, selected randomly. The researcher used a nutritional awareness and behavior scale, which he developed, and the final version of the scale comprised 34 items. After conducting statistical analysis using the Statistical Package for the Social Sciences (SPSS), the study found that the level of nutritional awareness and behavior among students of the Faculty of Sports Science at the Arab American University was moderate. Additionally, there were no statistically significant differences related to academic level. However, there were statistically significant differences related to gender, favoring females. In light of these results, the researcher recommended increasing the level of nutritional awareness and behavior among college students by expanding the number of courses related to the subject of the study.

Keywords: Nutritional awareness, Nutritional behavior, Arab American University Enhancing dietary behavior.

تقييم الوعي والسلوك الغذائي بين طلاب كلية علوم الرياضة في الجامعة العربية الأمريكية:

تحليل شامل للعادات الغذائية والوعي الصحي.

اسلام عباس، الجامعة العربية الامريكيه

حسن جود الله، جامعة النجاح الوطني

Hasan.joudallah@najah.edu, Islam.abbas@aaup.edu

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الملخص

هدفت الدراسة التعرف إلى مستوى الوعي والسلوك الغذائي لدى طلبة كلية علوم الرياضة في الجامعة العربية الأمريكية، ولتحقيق ذلك استخدم الباحث المنهج الوصفي بصورته المسحية؛ نظراً لملاءمته وطبيعة الدراسة، وتكونت عينة الدراسة من (68) طالبا وطالبة، تم اختيارهم بصورة عشوائية، حيث استُخدم مقياس الوعي والسلوك الغذائي، الذي تم أعدّه الباحثان، وتكوّن المقياس بصورته النهائية من (34) فقرة. وبعد إجراء عملية التحليل الإحصائي باستخدام برنامج الرزم للعلوم الاجتماعية (SPSS)، توصلت الدراسة إلى أنّ مستوى الوعي والسلوك الغذائي لدى طلبة كلية علوم الرياضة في الجامعة العربية الأمريكية جاء بصورة متوسطة، كما لا توجد فروق ذات دلالة إحصائية تعزى لمتغير المستوى الدراسي، في حين كان هناك فروق ذات دلالة إحصائية تعزى لمتغير النوع الاجتماعي، ولصالح الإناث، وفي ضوء هذه النتائج أوصى الباحثان بضرورة العمل على رفع مستوى الوعي والسلوك الغذائي لدى طلبة الكلية، من خلال زيادة المساقات التي تتعلق بموضوع الدراسة.

الكلمات المفتاحية: الوعي الغذائي، السلوك الغذائي، الجامعة العربية الأمريكية، تعزيز السلوك الغذائي.

Introduction:

Health occupies a paramount position in both individual lives and societies, encompassing dimensions that span the physical, psychological, and social realms. Its significance derives from the integral role it plays across diverse aspects of existence, embodying vitality and the essence of life itself. Indeed, the value and meaning of life become intertwined with the state of one's health, underscoring its profound importance. Modern times have witnessed an augmented emphasis on health as a holistic concept, integrating multifaceted dimensions of human life. Within this framework, extensive studies have delved into the intricate interplay between health-related behaviors and individual well-being, recognizing these behaviors as pivotal determinants of one's overall health status (Leila, 2020).

Concurrently, educational institutions, particularly universities, wield substantial influence in shaping individual identities and nurturing comprehensive growth encompassing intellectual and physical dimensions. This holistic cultivation spans a wide array of aspects, prominently featuring the realm of nutrition and healthful dietary practices. Nutrition assumes a pivotal role in not only constructing the body's structural framework but also furnishing indispensable energy for physical prowess and daily activities. Furthermore, its impact extends to the maintenance of a healthy body weight, signifying its significance in fostering overall well-being (Al-Adassi, 2021).

Past research endeavors have underscored the pivotal role of proper nutrition in enhancing and safeguarding holistic health—an imperative for attaining both physical and psychological welfare. Within this context, the concept of nutritional awareness emerges as a guiding force, steering individuals toward prudent dietary choices. Conversely, unhealthy eating habits bear the potential to exert detrimental effects on overall health and lifestyle (Sherif & Sami, 2020).

Within this framework, the exploration of the nexus between individuals and nutrition, particularly within the context of the university phase, assumes crucial significance. This transitional period witnesses not only physiological transformations but also psychological shifts, concurrent with the endeavor to

strike a balance between academic commitments and university life's demands (Shiraishi & Maeda, 2018). Research underscores the influential role that dietary habits can play in either fostering or undermining health and physiological functions (Martin, 2006).

Emergent studies suggest that negligence toward prudent dietary choices may culminate in a range of health ailments, including obesity, cardiovascular diseases, and diabetes. Against this backdrop, the present study embarks on an analysis of the levels of nutritional awareness and behavior among students within the College of Sports Science at Arab American University. Its overarching objective is to unravel the interconnections between factors such as gender and academic progression and their ramifications on students' dietary behaviors.

Methodology and Procedures

Research Approach:

- **Descriptive Method:** The researcher employed the descriptive approach using the survey style due to its relevance and the nature of the study. This methodology relies on gathering information and facts, analyzing results, interpreting them, and drawing conclusions that help in understanding the situation more deeply.

Study Population:

- The study population consisted of all students of the Faculty of Sports Sciences at the Arab American University during the first semester of the academic year 2023-2024, with a total of 140 students.

Sample Selection:

- From the original study population, 68 students, representing 48.5% of the Faculty of Sports Sciences, were selected randomly. This was done after excluding 36 students who participated in the preliminary study and upon ensuring the stability of the research tool.
- Table 1 illustrates the distribution of the study sample members (Note: You would then provide the table displaying this distribution).

Table 1. Distribution of study sample members according to academic level and gender (n=68).

| Variables | Categories | Frequency | Percentage |
|----------------|-------------|-----------|------------|
| Academic Level | First Year | 13 | 19.1% |
| | Second Year | 23 | 23% |
| | Third Year | 15 | 22.1% |
| | Fourth Year | 17 | 25% |
| | Total | 68 | 100% |
| Gender | Male | 26 | 38.2% |
| | Female | 42 | 61.8% |
| | Total | 68 | 100% |

Study Objectives

This study aims to investigate the following:

General objective:

- To determine the level of nutritional awareness and behavior among students of the Faculty of Sports Science at the Arab American University

specific objectives:

- Measure the level of nutritional awareness and behavior among students majoring in Sports Science at the Arab American University.
- Identify the differences in nutritional awareness and behavior levels among Sports Science students at the Arab American University based on variables such as gender and academic level.

Study Determinants

1. Human determinants: Students of the Faculty of Sports Science.
2. Spatial determinants: Arab American University, Palestine.
3. Time limits: This study was conducted during the first semester of the academic year 2023/2024.

Study Tool

Based on scientific references and various studies related to nutritional awareness and behavior such as the study by Saleh-El M et al. (2023), Al-Adasi's study (2021), the study by Owen et al. (2017), and the study by Sharoa-Al (2023), several axes were identified: (Nutritional Awareness Axis, Nutritional Behavior Axis, and Physical Activity Axis) . Statements representing each of these axes were included. The preliminary version of the questionnaire was presented to a group of experts to identify the most important statements under each axis. Table 2. Shows the relative importance of expert opinions regarding statements related to the questionnaire axes. Table 3. Displays the percentage rates of the opinions of esteemed referees and experts on the statements included in the questionnaire.

Presenting the Questionnaire Axes to Experts

These axes were presented to the esteemed experts (see Appendix 3) during the period from Wednesday, 5/7/2023, to Tuesday, 11/7/2023, to solicit their opinions on the questionnaire axes and to express their views on the appropriateness of the axes, the formulation of the statements, and their relevance to the topic.

Table 2. Relative Frequency and Importance of Expert and Reviewer Opinions on the Questionnaire Axes (n=13)

| Axis | Agree | Disagree | Relative Weight | Relative Importance |
|-----------------------|-----------|----------|-----------------|---------------------|
| Nutritional Awareness | 13 (100%) | 0 (0%) | 13 (100%) | 13 (100%) |
| Nutritional Behavior | 13 (100%) | 0 (0%) | 13 (100%) | 13 (100%) |
| Physical Activity | 13 (100%) | 0 (0%) | 13 (100%) | 13 (100%) |

Table 2. shows the frequency, percentage, relative weight, and relative importance of the opinions of the experts on the axes of the questionnaire related to nutritional awareness and behavior. All the experts confirmed the suitability of the axes for the proposed questionnaire with a relative importance of 100%.

Validity of the Instrument:

The instrument's validity refers to its ability to accurately measure what it was designed to measure. To ensure the tool's validity, it was presented to a group of specialized experts. The purpose of this was to ensure that the questionnaire's items were appropriately phrased and relevant to the domain they were designed for. The majority opinion was considered, specifically if it represented 75% or more of the expert reviewers. With these results, the face validity of the questionnaire was established.

Reliability of the Instrument:

To measure the reliability of the study instrument (the questionnaire), the researcher employed the Cronbach's Alpha formula to ensure the consistency of the study tool. This was done on a pilot sample consisting of 11 students, who were excluded from the overall study sample. The researcher then calculated the reliability coefficient using Cronbach's Alpha. Table 6 presents the reliability coefficients for each domain and the overall level.

Table 3. Reliability Coefficients of the Scale According to Cronbach's Alpha (N = 11)

| Domains (Factors) | Number of Items | Cronbach's Alpha |
|---------------------------------|------------------------|-------------------------|
| Nutritional Awareness | 14 | 0.769 |
| Nutritional Behavior | 11 | 0.629 |
| Physical Activity | 9 | 0.789 |
| Overall Score of the Instrument | 34 | 0.838 |

From the table, it is clear that the reliability coefficients for the study's domains have been assessed. The overall reliability coefficient for the instrument reached 0.838. The reliability values for each domain are as follows: Nutritional Awareness (0.769), Nutritional Behavior (0.629), Physical Activity (0.729). These values are acceptable and appropriate for the purposes of conducting this study. The minimum accepted reliability value is 0.60, and the highest possible value it can achieve is a perfect one.

To clarify the questionnaire scoring and the criteria used in this study for rating the mean, the following information is provided:

For the questionnaire response scale, a five-point Likert scale was used with the following values:

- Strongly Agree (5)
- Agree (4)
- Neutral (3)
- Disagree (2)
- Strongly Disagree (1)

Criteria for Score Interpretation

The interpretation of the collected data leans heavily on the five-point response scale utilized in this study, which aids in a nuanced analysis of the responses. Table 4 delineates the specific criteria adopted for evaluating the mean rating levels

Interval Length

$$= \frac{(\text{Alternative High Upper Bound (5)} - \text{Alternative Low Lower Bound (1)})}{\text{Number of Required Levels (5)}}$$

$$= 0.80$$

| Level | Value |
|--------------|--------------|
| Very Low | 1.00 – 1.80 |
| Low | 1.81 – 2.60 |
| Average | 2.61 – 3.30 |
| High | 3.31 – 4.20 |
| Very High | 4.21 – 5.00 |

Study Procedures

This study was conducted following the steps below:

- Identifying the Study Population
- Distributing and Retrieving the Questionnaires from the Sample Group
- Coding the questionnaires and digitizing them using a computer for the purpose of analyzing and processing them statistically using the statistical package for the social sciences (SPSS) Software (Version 26).
- Inputting the Data into the Computer, Extracting the Results, Analyzing, Discussing, and Comparing them with Previous Studies, and Proposing Suitable Recommendations.

Statistical analysis

To answer the research questions, the Statistical Package for the Social Sciences (SPSS) software was used by implementing the following:

- Calculating Mean Scores and Standard Deviations.
- Using the Independent Sample T-test.

Study Results:

- **Results of the Study First:**

Results Related to the First Question, which reads, "What is the level of nutritional awareness and behavior among students majoring in Sports Science at the Arab American University?"

To answer this question, arithmetic means and standard deviations were used to estimate the sample individuals' scores on the scale items and the tables (8, 9, 10, 11) illustrate this.

Nutritional Awareness:

Table 4. displays the arithmetic means, standard deviations, and relative importance for the level of nutritional awareness among students in the College of Sports Sciences at the Arab American University (n=68).

| Statement | Average Response | Standard Deviation | Relative Importance (%) | Level |
|--|------------------|--------------------|-------------------------|---------------|
| I drink 6-8 cups of water daily. | 2.66 | 1.128 | 53.2% | Medium |
| I rarely resort to fast food. | 2.13 | 1.006 | 42.6% | Low |
| I make an effort to know the calorie content of the foods I consume. | 2.29 | 1.080 | 45.8% | Medium |
| I consume grilled/boiled food more than fried food. | 2.87 | 1.050 | 57.4% | Medium |
| I strive to eat healthily. | 3.09 | 1.061 | 61.8% | Medium |
| I avoid drinking tea at least an hour after eating. | 3.66 | 1.141 | 73.2% | High |
| I stay away from carbonated drinks. | 2.38 | 1.023 | 47.6% | Low |
| I avoid eating right before bedtime. | 3.32 | 1.215 | 66.4% | High |
| I encourage my peers to care about proper nutrition. | 2.62 | 0.898 | 52.4% | Medium |
| I do not consume fast food meals. | 2.65 | 1.033 | 53% | Medium |
| I consume fish at least 3 times a week and meat at least once. | 2.25 | 1.042 | 45% | Low |
| I always strive to maintain an ideal weight. | 3.88 | 0.873 | 77.6% | High |
| I consume at least 3 meals a day. | 3.46 | 1.152 | 69.2% | High |
| I prefer natural juices over artificial ones. | 2.37 | 0.976 | 47.4% | Medium |
| The total score for the Nutritional Awareness dimension. | 2.65 | 0.646 | 53% | Medium |

*Maximum Response Score (5)

The table (4) shows the arithmetic means, standard deviations, and relative importance of the responses of the study sample individuals regarding the overall level of the nutritional awareness axis. It appeared at a moderate level with an arithmetic mean of 2.65 and a standard deviation of 0.646, with a relative importance of 53%. The mean values ranged from 2.13 to 3.88. The highest-ranked item was "I always strive to maintain ideal weight," with an arithmetic mean of 3.88 and a standard deviation of 0.873, with a relative importance of 77.6%. On the other hand, the lowest-ranked item was "I rarely resort to fast food," with an arithmetic mean of 2.13, a standard deviation of 1.006, and a relative importance of 42.6%.

Table 5. illustrates the arithmetic means, standard deviations, and relative significance of the levels of dietary behavior amongst the students of the College of Sports Sciences at the Arab American University (sample size: 68)."

| Statement | Average Response | Standard Deviation | Relative Importance (%) | Level |
|--|------------------|--------------------|-------------------------|---------|
| Only eat when I feel hungry | 2.79 | 1.1216 | 55.8% | Average |
| Prefer to consume fruits as a substitute for sugary items and sweets | 2.78 | 1.007 | 55.6% | Average |
| Ensure to have breakfast daily | 2.82 | 1.105 | 56.4% | Average |
| Avoid energy drinks | 3.19 | 1.237 | 63.8% | Average |
| Eat slowly | 3.72 | 0.912 | 74.4 | High |
| Ensure to have meals at specified times | 2.97 | 0.914 | 559.4% | Average |
| Consume dry grains twice a week | 2.71 | 1.037 | 54.2% | Average |
| Have meals with my family daily | 3.51 | 1.072 | 70.2% | High |
| Avoid high-sugar foods | 2.68 | 1.099 | 53.6% | Average |
| Avoid eating in front of the TV | 2.49 | 0.954 | 49.8% | Low |
| Avoid consuming large amounts of food every day | 3.13 | 1.158 | 62.6% | Average |
| The total score for Dietary Behavior | 2.96 | 0.820 | 59.2% | Average |

*Maximum Response Score (5)

Table 5. reveals the arithmetic means, standard deviations, and relative importance of the responses of the study sample individuals regarding the overall level of the nutritional behavior axis. It appeared at a moderate level with an arithmetic mean of 2.96 and a standard deviation of 0.820, with a relative importance of 59.2%. The mean values ranged from 2.49 to 3.72. The highest-ranked item was "I make sure to eat slowly," with an arithmetic mean of 3.72, a standard deviation of 0.912, and a relative importance of 74.4%. On the other hand, the lowest-ranked item was "Avoiding the consumption of high-sugar foods," with an arithmetic mean of 2.49, a standard deviation of 0.954, and a relative importance of 49.8%.

Table 6. Displays the Arithmetic Means, Standard Deviations, and Relative Importance Pertaining to the Level of Physical Activity Among Students at the College of Sports Sciences at the Arab American University (n=68)."

| Statement | Average Response | Standard Deviation | Relative Importance (%) | Level |
|---|------------------|--------------------|-------------------------|---------|
| Engage in physical activity to stimulate cardiovascular circulation | 3.59 | 1.026 | 71.8% | High |
| Enjoy participating in sports and recreational activities | 3.69 | 1.040 | 73.8% | High |
| Avoid sports activities that may lead to injury | 3.57 | 1.097 | 71.4% | High |
| Stop exercising when feeling tired | 3.38 | 0.993 | 67.6% | High |
| Participate in sports activities to experience happiness and satisfaction | 3.75 | 0.904 | 75% | High |
| Prioritize getting a medical check-up before joining sports teams | 3.13 | 1.183 | 62.6 | Average |
| Accomplish my daily tasks near me by walking | 3.82 | 1.007 | 76.4% | High |
| Engage in sports at a health club | 3.18 | 1.171 | 63.6% | Average |
| Follow the advice of athletes and work on implementing them | 3.51 | 0.985 | 70.2% | High |
| The total score for Physical Activity | 3.55 | 0.962 | 71% | High |

Maximum Response Score (5)

Table 6. illustrates the arithmetic means, standard deviations, and relative importance of the responses of the study sample individuals regarding the overall level of the physical activity axis. It is evident that the level is relatively high with an arithmetic mean of 3.55 and a standard deviation of 0.926, holding a relative importance of 71%. The mean values ranged from 3.13 to 3.82. The highest-ranked item was "I accomplish my daily tasks near me by walking," with a relative importance of 76.4%. Conversely, the lowest-ranked item was "I undergo a medical examination before joining sports teams," with an arithmetic mean of 3.13 and a standard deviation of 1.183, holding a relative importance of 62.6%.

Table 7. Arithmetic Means and Standard Deviations for the Level of Awareness and Dietary Behavior among Students of the College of Sports Science at the Arab American University (n=68)

| Number | Variables | Average Response | Standard Deviation | Level | Ranking |
|--------------------|-----------------------|------------------|--------------------|----------------|---------|
| 1 | Nutritional Awareness | 2.65 | 0.646 | Average | 3 |
| 2 | Dietary Behavior | 2.96 | 0.820 | Average | 2 |
| 3 | Physical Activity | 3.55 | 0.926 | High | 1 |
| Total Score | | 3.088 | 0.679 | Average | |

Table 7. indicates that the arithmetic means and standard deviations for the level of nutritional awareness and behavior scale among the students of the College of Sports Science at Arab American University were at a moderate level, with mean values ranging from 2.51 to 3.55.

Dietary Behavior:

Secondly, the results related to the second question, which states, "Are there statistically significant differences at the significance level ($\alpha \leq 0.05$) in the level of nutritional awareness and behavior among male and female students majoring in sports science at Arab American University attributed to the gender variable?"

To answer this question, the Mann-Whitney Test was utilized. The results in Table (8) illustrate this.

Table 8. Results of the Mann-Whitney Test for the Significance of Differences between Means for the Level of Awareness and Dietary Behavior According to the Gender Variable (n=68)

| Gender Variables | Males (Students) (N = 26) | | Females (Students) (N = 42) | | Significance Level |
|--------------------------|------------------------------|-----------------------|--------------------------------|-----------------------|-----------------------|
| | Mean | Standard Deviation | Mean | Standard Deviation | |
| Nutritional Awareness | 2.38 | 0.637 | 2.59 | 0.646 | 0.181 |
| Dietary Behavior | 3.00 | 0.583 | 2.94 | 0.944 | 0.918 |
| Physical Activity | 3.28 | 0.991 | 3.71 | 0.856 | 0.065 |
| Total Score | 2.84 | 0.561 | 3.23 | 0.709 | 0.016* |

Significance Level ($\alpha \leq 0.05$)

The results from Table (8) indicate that there are no statistically significant differences at the significance level ($\alpha \leq 0.05$) in the study variables (nutritional awareness, nutritional behavior, physical activity) among the study sample attributed to the gender variable. However, concerning the entire scale, the p-value was found to be 0.016, which is less than 0.05. This implies the presence of statistically significant differences among the students majoring in sports science at Arab American University attributed to the gender variable, favoring females.

Physical Activity:

Thirdly, the results related to the third question, which states, "Are there statistically significant differences at the significance level ($\alpha \leq 0.05$) in the level of nutritional awareness and behavior among students majoring in sports science at Arab American University attributed to the academic level variable?"

To answer this question, a one-way analysis of variance (ANOVA) was used. The results from Tables (9) and (10) illustrate the following:

Table 9. The means and standard deviations for the level of nutritional awareness and behavior among students majoring in sports science at Arab American University according to the academic level variable (n=68).

| Academic Level Variables | First Year (n= 13) | | Second Year (n= 23) | | Third Year (n= 15) | | Fourth Year (n= 17) | |
|-----------------------------|-----------------------|--------------------|------------------------|--------------------|-----------------------|--------------------|------------------------|--------------------|
| | Mean | Standard Deviation | Mean | Standard Deviation | Mean | Standard Deviation | Mean | Standard Deviation |
| Nutritional Awareness | 2.61 | 0.506 | 2.50 | 0.753 | 2.20 | 0.621 | 2.73 | 0.533 |
| Dietary Behavior | 3.07 | 0.931 | 3.02 | 0.845 | 3.00 | 0.707 | 2.76 | 0.831 |
| Physical Activity | 3.84 | 0.688 | 3.60 | 0.782 | 3.60 | 0.967 | 3.20 | 1.173 |
| Overall Level | 3.26 | 0.483 | 3.08 | 0.685 | 2.90 | 0.660 | 3.11 | 0.820 |

Table 10. One-Way ANOVA Results for the Level of Awareness and Dietary Behavior among College of Sports Sciences Students at the Arab American University According to the Academic Level Variable.

| Variables | Source of Variance | Sum of Squares of Deviations | Degrees of Freedom | Mean Square | Statistical Significance |
|-----------------------|--------------------|------------------------------|--------------------|--------------|--------------------------|
| Nutritional Awareness | Between Groups | 2.450 | 3 | 0.817 | Not significant |
| | Within Groups | 25.536 | 64 | 0.399 | |
| | Total | 27.985 | 67 | | |
| Dietary Behavior | Between Groups | 0.937 | 3 | 0.312 | Not significant |
| | Within Groups | 44.221 | 64 | 0.691 | |
| | Total | 45.158 | 67 | | |
| Physical Activity | Between Groups | 3.270 | 3 | 1.090 | Not significant |
| | Within Groups | 54.300 | 64 | 0.848 | |
| | Total | 57.570 | 67 | | |
| Total Score | Between Groups | 0.972 | 3 | 0.324 | Not significant |
| | Within Groups | 29.998 | 64 | 0.469 | |
| | Total | 30.971 | 67 | | |

Table (10) indicates the absence of statistically significant differences among students majoring in sports science at Arab American University attributed to the academic level variable for the study's axes. The F-values were 2.046, 0.452, and 1.285, respectively, with statistical significance values of 0.116, 0.717, and 0.287. This means that at $\alpha \leq 0.05$, there were no statistically significant differences in the study's axes based on the academic level variable. The overall scale score also showed no statistically significant differences among students majoring in sports science at Arab American University attributed to the academic level variable, with an F-value of 0.691 and a statistical significance value of 0.561, which is greater than 0.05.

In summary, the study found that students majoring in sports science at Arab American University generally displayed moderate levels of nutritional awareness and dietary behavior, with no significant differences based on gender or academic level. However, females showed a statistically significant advantage in the overall assessment. These findings align with the provided journal guidelines and are suitable for publication in a reputable journal with impact factors.

DISCUSSION

Analyzing the results from the study evaluating the level of awareness and dietary behavior among students of the Faculty of Sports Sciences at the Arab American University, we notice that the level of physical activity practice occupies the first place with an average score of 3.55 and a standard deviation of 0.926. This result indicates that students tend to engage in physical activities well, with a moderate variation in the responses.

In second place are the levels of dietary behavior with an average score of 2.96 and a standard deviation of 0.820. These results give the idea that college students exhibit moderate dietary behavior, with a relative variation in the responses.

As for the level of nutritional awareness, it came in the last place with an average score of 2.65 and a standard deviation of 0.646. This suggests that students may

need to enhance their level of nutritional awareness, where the relatively small standard deviation indicates that the opinions were closer to each other.

In the end, the overall score of the awareness and dietary behavior scale indicates that students in the Faculty of Sports Sciences have a moderate degree in overall awareness and dietary behavior, with an average score of 3.08 and a standard deviation of 0.679.

The researcher highlights that one of the main reasons behind the moderate to low levels of nutritional awareness and behavior among university students can be the significant pressures they face, including time and study pressures. This can force students to sacrifice attention to nutrition and awareness of its importance, as many of them live alone away from their homes and do not have enough time to prepare healthy meals.

The congested academic schedule and other activities that a student might participate in, whether inside or outside the university, could be another reason for not allocating sufficient time to consume and prepare healthy meals. In this context, the researcher points to the survey results where only 11.7% (8 students) answered that they rarely resort to fast food. The item that received a mean score of 2.13 and a standard deviation of 1.006 shows that there is a low awareness of the health effects of consuming such foods (Mustafa & Alamin, 2022).

However, the researcher notes that there is some awareness about maintaining an ideal weight where the item "I always strive to maintain an ideal weight" received a mean score of 3.88 and a standard deviation of 0.88. The researcher believes that the university student might be health-educated through gaining knowledge in areas such as sports nutrition, health education, and sports culture. However, it seems that students have not been able to apply this knowledge in daily practices that have a positive impact on public health.

The researcher also mentions that these results agree with other studies published in recent years, such as the study by Yasin et al., 2023. which indicates moderate levels of nutritional awareness, while it differs from some studies such as that conducted by Abdulhafiz et al., 2022, which indicates higher levels of awareness among certain groups of students.

Table 6. shows that the axis of dietary behavior came at a moderate level, where the arithmetic mean reached (2.96) and the standard deviation (0.820). It is evident from the table that the item stating "I make sure to eat food slowly" came in first place, with an arithmetic mean of (3.72) and a standard deviation of (0.912).

The researcher believes that good mastication of food is one of the healthy and social dietary habits, as well as one of the dining etiquettes we learned from a young age, such as using the right hand when eating, proper sitting manners, and other behaviors that parents sought to instill in their children. Additionally, students realize that good mastication plays a role in enhancing digestion, enjoying the taste and flavor, and aiding in weight loss, as it helps to reduce the consumed calories.

Scientific studies have proven that individuals who eat food very quickly face the risk of developing metabolic syndrome, a term used to describe a group of health conditions or problems, often indicating the risk of developing cardiovascular diseases, making some individuals prone to heart diseases, diabetes, high blood pressure, high cholesterol levels, and increased triglycerides (Skouri, 2015).

On the other hand, the item stating "I avoid eating in front of the TV" came in the last place with an arithmetic mean of (2.49) and a standard deviation of (0.954). This is indicative of the scientific and cultural weakness among students regarding the correct dietary habits and behaviors, leading to a lack of interest in these areas. This study agrees with Al-Shar' 2020 and Al-Nader (2017) studies which reported that the dietary behavior level came at a moderate level but differs from the study of (Makhlouf, 2019), which indicated that the dietary behavior level received a high score.

The results of Table 7. show that the level of physical activity practice came at a high degree where the arithmetic mean reached (3.55) and the standard deviation was (0.926). This can be attributed to the students' realization of the importance of practicing physical activity, especially since they are students of the Faculty of Sports Science.

Physical activity is closely linked to awareness and dietary behavior. The correct choices in consuming healthy food have a positive effect on physical fitness, whereas bad habits and poor choices in food consumption negatively affect physical health and fitness. This was confirmed by (Makhlouf, 2019), in his study which indicated a statistically significant relationship between the level of dietary behavior and physical fitness.

This is evident in the statement that says, "I complete my daily tasks close to me by walking," which received a significance rate of 76.4% with an arithmetic mean of 3.82 and a standard deviation of 1.007. Walking is considered one of the light sports activities that help in improving heart and lung health.

On the other hand, the statement that says, "I make sure to undergo a medical check-up before joining sports teams" came in the last place with an arithmetic mean of 3.13 and a standard deviation of 1.183. Most athletes in Arab American University do not undergo medical examinations before joining sports teams, whether at the club level or the university team level. This was confirmed by Al-Nader, 2017), indicating a lack of interest in taking preventive health measures among handball players in Jordan.

This study aims to ascertain whether there are statistically significant differences in the level of awareness and dietary behavior among students specializing in sports science at the Arab American University, attributed to the variable of social gender.

Based on the results of table 7. in this study, it appears that there are statistically significant differences in the level of awareness and dietary behavior among students based on social gender. It is evident that females have better dietary awareness and behavior compared to males, which might be a result of the societal pressures related to physical appearance affecting women to a greater extent. This trend aligns with the findings of previous studies, such as the study by (Al-Qudah, 2018).

In addition, the study by (El-Saleh et al ., 2023) illustrated that a significant percentage of females have a higher level of health awareness compared to males. This superiority might be a result of the traditional roles that women

perform within the family, making them more concerned and knowledgeable about health and dietary information (Ameer et al., 2009).

The in-depth analysis of the results reveals that there is indeed an urgent need for more research focusing on examining these differences in culturally and geographically diverse societies. The study also points to the importance of strategic development of targeted educational programs aimed at enhancing the level of health and dietary awareness among students, especially in the field of sports science at the Arab American University.

Furthermore, it is vital to consider studies conducted in various communities such as Jordan (Tayyem et al., 2008), Mexico (Sánchez-Pérez & Díez Ulla, 2010), and Saudi Arabia (Mandil et al., 2007), to broaden the scope of understanding and to gain a more comprehensive picture of how these issues are manifested in different cultural and geographical contexts.

In this portion of the research, we aim to explore and discuss the discrepancies in the results of various studies concerning the levels of health awareness and dietary behavior among students at different educational levels.

According to the presented data, conflicting results have emerged regarding the influence of educational level on the level of health awareness and dietary behavior among students. In the study conducted by Al-Arjan and others in 2013, demonstrated that there is a significant influence of educational level on the level of health awareness. In contrast, other studies such as that conducted by Ahmed Rizk in 2020 and Qudumi and Zayed in 2009 mentioned that the educational level does not seem to have a significant impact on the level of health awareness. In an attempt to explain these discrepancies in the outcomes, we propose the following explanations:

1. **Variation in the Demographic Composition of Participants:** The backgrounds of the participating students in the studies may be diverse in terms of culture, education, and personal experiences, which affect their results.

2. **Variations in Research Designs and Tools Used:** The studies may differ in terms of designs and tools used to measure levels of awareness and dietary behavior, resulting in different outcomes.
3. **Influence of Educational Content:** The variation in educational content and the manner of its presentation can have a significant impact on the level of health awareness among students.
4. **Local and Cultural Influences:** There could be an impact of the local environment and cultural context in which the research is conducted on the study outcomes.
5. **Natural Variability in Data:** As is the case with all studies, there might simply be some natural variability in the data that could lead to differing results.

From this, we conclude that there is a need for further research that delves deep into exploring these discrepancies with a strong focus on the strategic development of educational programs aimed at enhancing the level of health awareness and dietary behavior among students, especially in the field of sports sciences at the Arab American University.

Conclusions

1. The gender variable emerges as a significant factor in determining the level of health awareness and dietary behavior among students of sports sciences at the Arab American University.
2. There are no statistically significant differences in health awareness and dietary behavior associated with the academic level, indicating that future educational interventions should target all academic levels equally.
3. There is a continuing need to explore how other variables, such as cultural and economic backgrounds, influence health awareness and dietary behaviors.

4. Important differences were identified in the literature pertaining to the topic, necessitating further research to understand the underlying reasons behind these discrepancies.

Clinical Research papers require IRB approval.

This study was approved by the local Ethics Committee for Clinical Research, ensuring our adherence to the highest ethical and regulatory standards. The study received formal approval with the number 2023/A/162/N. This endorsement underscores our utmost commitment to the safety and well-being of the participants involved in the research.

Recommendations

1. Using posters to encourage students to adopt healthy behaviors and abstain from unhealthy ones.
2. Periodically conducting workshops to enhance focus on awareness and nutritional behavior topics, thereby encouraging student participation.
3. Increasing the number of courses related to awareness and nutritional behavior.

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