

ASSESSING HEALTH AWARENESS GROWTH IN ARAB AMERICAN UNIVERSITY STUDENTS POST PHYSICAL EDUCATION COURSE

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Abstract:


The study aimed to identify differences in the level of health awareness among students enrolled in the physical education course at the Arab American University after completing the course. Additionally, the researchers examined whether there were statistically significant differences attributed to variables such as gender and college. The researchers used a descriptive approach due to its suitability for the study's nature. The study population consisted of 155 male and female students, with a sample of 110 students randomly selected, representing 70.9% of the original study population.


The researchers utilized a health awareness scale comprising four dimensions (nutrition, personal health, physical activity, physique). Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS). The key findings indicated statistically significant differences between pre-assessment and post-assessment of health awareness levels among students enrolled in the physical education course in favor of the post-assessment. Moreover, statistically significant differences were found in the post-assessment of health awareness levels based on the college variable, favoring scientific colleges, while no statistically significant differences were observed based on the gender variable. The researchers recommended intensifying health awareness campaigns for students in humanities colleges and university students in general.

Key Words: Health Awareness, Physical Education

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Introduction:

Health is a fundamental right among the rights of humans that is indispensable. Every individual has the right to enjoy the highest attainable standard of health, leading to a dignified life. The right to health for humans is acknowledged in various instruments, as highlighted in the Universal Declaration of Human Rights issued by the International United Nations Organization in the first paragraph of Article (25). It states that every person has the right to a standard of living adequate for the health and well-being of themselves and their family, including food, clothing, housing, medical care, and necessary social services. This is reiterated by Zeftawi (2021), affirming that health is the cornerstone of human development and a significant indicator of life quality, constituting a fundamental human right.

Therefore, health has become a fundamental requirement and a strategic goal pursued by countries worldwide, as well as their organizations and individuals, striving to attain it and working diligently towards achieving a healthy and sound life. Through this pursuit, individuals contribute to various development efforts for themselves, their families, and their communities. They play a role in nurturing and preparing their children to be well-rounded individuals in all physical, spiritual, mental, social, and health aspects, equipping them with the knowledge, skills, and appropriate behaviors that enable them to cope with different aspects of life.

The issue of health awareness, its acquisition, and dissemination stand out as one of the top priorities and main objectives of health education. In the era of technological and industrial progress, where individuals are exposed to increasing health and environmental risks, the importance of raising awareness about health becomes crucial. Tazi (2021) pointed out that the level of health awareness among individuals is now considered one of the indicators measuring the progress of societies. Health awareness represents a key indicator relied upon by researchers and scholars in classifying advanced societies in the face of the growing health and environmental challenges in the age of technological and industrial advancement.

It is the responsibility of society, with all its institutions, to undertake the task of educating its individuals about the importance of disseminating information related to health, including universities, which play a vital role in promoting health awareness. The responsibility of universities, as educational institutions, extends beyond the academic aspect alone. They have a role in promoting health awareness as a comprehensive and balanced development tool for individuals in general and university students in particular.

Through universities, comprehensive and accurate health information can be provided to students on various health aspects. This includes conducting workshops and lectures on nutrition and proper health behaviors. It is known that young people in the university stage fall under an age category that holds special significance, as it represents a pivotal age group in society. This age group is crucial to the nation's economy, and their health at this

stage ensures stability, while any deficiencies in their health can lead to weakness and vulnerability.

Al-Najmi (2020) emphasized that the university stage is a critical and pivotal phase in an individual's life, where growth and maturity occur, and the foundation is laid for the future. It is during this stage that a person's health relationships are defined. Consequently, healthcare and attention to healthy behaviors become central concerns for contemporary university institutions.

Importance of The Study

In light of the prevalence of numerous negative health behaviors closely associated with various indicators indicative of susceptibility to diseases such as obesity, psychological disorders, and social-behavioral issues (Luppino et al., 2010; Gariepy et al., 2010; Napolitano & Foster, 2008), many universities, including the Arab American University, have introduced academic courses in an attempt to elevate health awareness among their students. These initiatives aim to modify some prevalent unhealthy behaviors among this demographic, such as smoking and improper dietary habits, to educate them and draw their attention to the necessity of distancing themselves from such behaviors.

Hence, the importance of this study, from the researchers' perspective, lies in its exploration of the topic of assessing the level of health awareness among this significant demographic. The significance of health awareness resides in enabling individuals to adopt a scientifically accurate perspective that aids in interpreting health phenomena. It empowers individuals to investigate the causes of diseases, allowing them to avoid and prevent health issues. Furthermore, health awareness serves as a cognitive resource that individuals can utilize when making informed and accurate decisions in response to health challenges they may encounter.

Research Problem

Several studies, such as that of Mohammed (2007) and the study conducted by Nasr al-Din and Al-Qas (2016, pp. 159-160), have indicated that students are more susceptible to facing health problems and contracting various diseases. These diseases include malnutrition-related illnesses and those resulting from unhealthy lifestyles, such as sedentary behavior and neglect of physical exercise. Additionally, risky behaviors like smoking, highlighted by the study conducted by Al-Dajani (2017), have been observed to be prevalent among university students.

In light of these indicators and evidence regarding the prevalence rates of health problems and diseases affecting all segments of society, particularly university students, and recognizing that addressing these diseases and health issues, as indicated by Al-Halalat et al. (2016), cannot be achieved through healthcare alone but requires the development of

health awareness, and given that one of the researchers is a lecturer for this course, the researchers saw the necessity of conducting this study. The aim is to investigate the impact of teaching physical education on raising the level of health awareness among students at the Arab American University. This course is one of the university's elective requirements periodically offered to students from various disciplines and colleges.

Research Goals

This study aims to uncover the following:

1. The level of health awareness among students enrolled in the physical education course.
2. The extent of change in measuring the level of health awareness among students enrolled in the physical education course after completing the course.
3. To determine if there are statistically significant differences in the extent of change in measuring the level of health awareness among students enrolled in the physical education course after completing the course, attributed to study variables (gender, Specialization).

Research Questions

This study also seeks to answer the following questions:

1. Is there a statistically significant difference at a significance level $\alpha \leq 0.05$ between the means of pre-course measurements (before studying the course) and post-course measurements (after studying the course) in the level of health awareness?
2. Is there a statistically significant difference at a significance level $\alpha \leq 0.05$ between the means of post-course measurements in the level of health awareness, attributed to the study variables (gender, Specialization)?

Research Determinants

- Human Determinants: Students Enrolled in the Physical Education Course at the Arab American University.
- Place Determinants: Arab American University.
- time Determinants: This study was conducted during the summer semester of the academic year 2022/2023.

Research Terminology

- Health awareness is the individuals' familiarity with health-related information and facts, coupled with their sense of responsibility towards their own health and the health of others. It involves intentional engagement in health practices resulting from understanding

and persuasion, transforming these health practices into habits that are performed unconsciously or without active thought. (Al-Shiri, 2022)

- The physical education course is an elective offered by the General Education Department, covering various topics such as physical fitness and its health-related components, sports, and body structure. It aims to provide students with information and concepts related to physical and health education, along with the foundational principles of health education in the sports domain. (Operational Definition)

Previous Studies

In a study conducted by Al-Razik and Al-Janidi (2023), the aim was to explore the relationship between health awareness and middle school students' attitudes toward physical and sports activities. The researcher employed the descriptive-correlational method to test the study hypotheses. The study sample consisted of 113 students, including 56 males and 57 females. Two scales were used to collect data: the Health Awareness Scale and the Attitudes Toward Physical Activity Scale. The researcher used the Statistical Package for the Social Sciences (SPSS) to analyze the study data. The study concluded that there is no statistically significant relationship between the level of health awareness among students and any dimension of attitudes toward physical and sports activities, except for the dimension of stress and risk experience for the entire sample. Additionally, there is a negative correlation in the level of health awareness with female students' attitudes toward physical activity in dimensions such as stress and risk experience and physical activity as an aesthetic experience. Conversely, there is a positive correlation in the level of health awareness with male students' attitudes toward physical and sports activities in dimensions like social experience, athletic excellence experience, and post-physical activity for health and fitness, as well as after stress reduction.

In a study conducted by Ayyadi (2023), the aim was to determine the level of health awareness among students at Chahid Benjelloun University in El Tarf. Additionally, the study sought to identify whether there were statistically significant differences in the level of health awareness attributed to gender and age. The researcher utilized the descriptive method due to its suitability for the nature of the study. Data was collected using the Health Awareness Questionnaire on a sample of 129 students from Chahid Benjelloun University. After collecting and statistically analyzing the data using the Statistical Package for the Social Sciences (SPSS), the study results indicated that the level of health awareness among university students was moderate. Furthermore, there were no statistically significant differences in the level of health awareness among students at Chahid Benjelloun University attributed to the variables of gender and age.

In a study conducted by Ben Haddaia and Seba (2023), the aim was to explore the nature of attitudes toward health awareness among secondary school students in Tougourt city. The researchers used the descriptive method due to its suitability for the study's nature. A random sample of 120 male and female students was selected. The researchers

used a scale for attitudes comprising three dimensions (cognitive, emotional, behavioral), with each dimension including four domains (nutrition, physical activity, prevention and medication, environment). The data were analyzed using the Statistical Package for the Social Sciences (SPSS). The significant results indicated the presence of positive attitudes toward health awareness among secondary school students. Additionally, there were statistically significant differences in attitudes toward health awareness among secondary school students based on the variable of gender, favoring males.

The study conducted by Al-Rawabdeh (2021) aimed to determine the level of health awareness among students participating in school teams. The study sample consisted of students participating in school teams in schools affiliated with the Directorate of Education in Al-Taybeh and Al-Wasatiyah districts in Irbid Governorate. The sample included 129 students participating in individual sports during the first semester of the academic year 2019-2020, selected purposively. The researcher employed the analytical descriptive approach and utilized a health awareness scale prepared by the researcher. The study results indicated that health awareness among participants in school teams was high. Moreover, there were no statistically significant differences attributed to the type of sport and gender in the overall score of health awareness.

Abdelkoui (2020) conducted a study aiming to assess the level of health awareness among second and third-year undergraduate students and determine differences according to body mass index (BMI) classification. The researcher employed a descriptive survey method on a sample randomly selected from second and third-year undergraduate students (both male and female) from Djilali Bounaama University with a total of 475 students. A health awareness scale consisting of five dimensions (nutrition, physical activity, personal health, mental health, body image) and comprising 57 items was administered, along with the use of a BMI test. The most significant results revealed a high overall level of health awareness among university students, along with statistically significant differences in health awareness levels among students based on BMI classification. Based on these findings, the researcher recommended further assessment of health awareness among various societal groups and emphasized the importance of enhancing health awareness regarding nutrition and physical activity among students.

Abdul-Aleem et al. (2020) conducted a study with the aim of assessing the level of health awareness among elderly individuals attending some healthcare centers in Kuwait. The researchers utilized a descriptive methodology, deemed suitable for the nature of the study. The research sample consisted of a group of elderly individuals attending healthcare centers in the "Al Jahra" governorate, comprising 40 individuals selected purposively. The researchers employed a questionnaire to assess the level of health awareness associated with physical activity among elderly individuals attending some healthcare centers in Kuwait. The results indicated a clear increase in the adoption of health principles by the elderly, including prevention, body care, rest, and maintaining sleep patterns. The

researchers recommend the necessity of addressing the needs of the elderly population comprehensively, encompassing physical, mental, emotional, and social aspects

Abaza et al. (2020) conducted a study to explore the relationship between health and nutritional awareness among youth football players and their physiological variables. The researchers developed a scale (for health awareness and nutritional awareness) specifically for the youth, utilizing a descriptive methodology with survey studies, which was deemed appropriate for the study's nature and objectives. The researchers selected the study sample purposively, consisting of 105 youth football players from the Egyptian Al Ahly Club, divided as follows: 15 youth for conducting pilot testing to establish the scientific coefficients "validity and reliability" of the questionnaire form, and 90 youth for the final application of the questionnaire form under study.

Conclusions: Statistically significant differences were found between 13-year-old and 11-year-old youth in favor of the 13-year-old youth in the first axis of the health awareness questionnaire. Statistically significant differences were found between 12-year-old and 11-year-old youth in favor of the 12-year-old youth in the first axis of the health awareness questionnaire. Statistically significant differences were found between 13-year-old and 11-year-old youth in favor of the 13-year-old youth in the second axis of the health awareness questionnaire. Statistically significant differences were found between 13-year-old and 11-year-old youth in favor of the 13-year-old youth in the fourth axis of the health awareness questionnaire. Statistically significant differences were found between 13-year-old and 12-year-old youth in favor of the 13-year-old youth in the second axis of the nutritional awareness questionnaire. Statistically significant differences were found between 13-year-old and 11-year-old youth in favor of the 13-year-old youth in the second axis of the nutritional awareness questionnaire. Statistically significant differences were found between 13-year-old and 12-year-old youth in favor of the 13-year-old youth in the third axis of the nutritional awareness questionnaire. Statistically significant differences were found between 13-year-old and 12-year-old youth in favor of the 13-year-old youth in the fourth axis of the nutritional awareness questionnaire. Statistically significant differences were found between 13-year-old and 11-year-old youth in favor of the 13-year-old youth in the fourth axis of the nutritional awareness questionnaire.

Mulhem (2019) conducted a study aiming to assess the health awareness among students at Mu'tah University. The descriptive survey methodology was utilized due to its suitability for the study's nature. The researcher developed a questionnaire comprising four domains (nutrition, personal health, physical activity, body image). The study population consisted of all students at Mu'tah University, totaling 17,296 students, including 8,678 male students and 8,618 female students. The study sample comprised 279 students. The study results showed that the level of health awareness among Mu'tah University students was high in the domains of personal health and body image, while it was moderate in the domains of nutrition and physical activity. The results also indicated statistically significant differences based on gender, favoring females, as well as based on GPA, favoring higher

GPA. Furthermore, there were statistically significant differences based on major, favoring scientific majors. The researcher emphasized the necessity of enhancing health awareness among university students, particularly in the domains of nutrition and physical activity.

Al-Ayzeri and Abdul Salam (2019) conducted a study aiming to assess the level of health awareness among students of Dhamar University in the Republic of Yemen and to determine differences in health awareness levels according to variables such as major, academic level, and age. The researchers utilized a descriptive methodology, and the study sample consisted of 505 randomly selected students from various faculties of Dhamar University. The researchers administered a health awareness measurement questionnaire comprising 38 items. The collected data were analyzed using the statistical software SPSS. The study results revealed that the overall level of health awareness among the sample population was high, with the highest level of awareness observed regarding body image, followed by general health, physical activity, and nutrition, respectively. Furthermore, statistically significant differences were found based on the major variable, favoring scientific majors. Differences were also observed based on academic level, with the first level showing higher awareness compared to the third and fourth levels, and the fifth level showing higher awareness compared to the fourth level. However, regarding the age variable, the results showed no statistically significant differences. The researchers recommended the activation of student activities within universities to develop programs and activities with health-related content aimed at promoting health awareness among the university community.

Commentary on Previous Studies

Most studies focused on measuring health awareness using survey tools, such as Al-Razik and Al-Jenedi (2023), Ayadi (2023), Al-Rawabdeh (2021), Abdelkoui (2020). Additionally, the majority of studies adopted a descriptive methodology, like Ibada et al. (2020), Al-Ayzeri and Abdul Salam (2019), Mulhem (2019). The study samples varied, with some studies focusing on university students, such as Ayadi (2023), Abdelkoui (2020), Mulhem (2019), while others focused on athletes, like Ibada et al. (2020). Some studies examined school students, like Ibn Hudayyah and Sabaa (2023), Al-Rawabdeh (2021), while others targeted healthcare center visitors, as in Abdul-Aleem et al. (2020). Furthermore, there was diversity in the variables studied. Some explored the relationship between health awareness and attitudes towards physical activity, as in Ibn Hudayyah and Sabaa (2023), Al-Razik and Al-Jenedi (2023), while others examined age, academic level, and body mass index (BMI), such as Ayadi (2023), Abdelkoui (2020), Al-Ayzeri and Abdul Salam (2019). Most studies agreed on the necessity of increasing health awareness to modify health behaviors for maintaining well-being. Previous studies were utilized in designing the current study's methodology, formulating its problem statement, and discussing and interpreting its results. However, this study differed from previous ones as it sought to measure the extent

of change in health awareness levels induced by certain academic curricula, including physical education courses, among students.

Research method

Research methodology

The researcher adopted a descriptive approach using a survey method due to its suitability and the nature of the study. This approach relied on collecting information and facts, followed by analyzing the results and interpreting them to reach conclusions and generalizations that aid in a deeper understanding of the reality.

Research Sample

The study population consists of students enrolled in the Physical Education course during the summer semester of the academic year (2022-2023) at the Arab American University, totaling 155 male and female students. The study sample was randomly selected, comprising 110 students from the Arab American University, representing 70.9% of the original study population. Table 1 describes the distribution of the study sample according to the variables under study (gender, college).

Table (1): Mean and Standard Deviation of Sample Characteristics (n= 110)

dependent Variables	Variable Level	Frequency	Percentage
Gender	Male	26	23.6
	Female	84	76.4
Total		110	100%
College	Scientific	93	84.5
	Humanities	17	15.5
Total		110	100%

1. Research Instrument

After reviewing the theoretical literature and previous studies related to the study topic such as Ayadi (2023), Abdelkoui (2020), Ben Hadaya and Sabaa (2023), and Malham (2019), the researchers used the Health Awareness Scale employed by Abdelhaq et al. (2012). This scale consists of four domains: nutrition, comprising (8) items; personal health, comprising (5) items; physical activity, comprising (9) items; and physique, comprising (10) items, totaling (32) items. All scale statements were formulated positively to reflect health awareness levels. The researchers selected this scale for its ease of use, the relevance of its domains, and its suitability for the current study's procedures. Additionally, this scale was previously applied in the Palestinian context, demonstrating a reliability coefficient of (0.83) in the study by Abdelhaq et al. (2012).

Respondents answered the scale using a five-point Likert scale: strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1). Regarding the interpretation of

mean scores, the researchers adopted five levels (very high, high, moderate, low, very low), following the relative weights suggested by Al-Qudomi (2005). Table (2) illustrates this.

Table (2): Adoption of Mean Levels

Value	Level
Less than 50%	Very low
50 - 59.9%	Low
60 - 69.9%	Moderate
70 - 79.9%	High
More than 80%	Very high

To ensure the reliability of the tool, it was presented to a group of specialized experts to assess the questionnaire items and provide feedback regarding their formulation and relevance to the intended purpose. The majority opinion, equivalent to 80% of the expert panel, was considered in making decisions. With this result, the apparent validity of the questionnaire was achieved.

To assess the reliability of the study tool (questionnaire), the scale was administered to a pilot sample of 15 students who were excluded from the main study sample. Then, the researchers calculated the reliability coefficient using Cronbach's Alpha method. Table (3) illustrates the reliability coefficients for each axis and the overall level.

Table (3): Reliability Coefficients of the Scale According to Cronbach's Alpha Equation (N = 15)

Domain	Number of Items	Cronbach's Alpha
Nutrition	8	0.770
Personal Health	5	0.637
Physical Activity	9	0.730
Body Composition	10	0.880
Total Scale Score	32	0.878

The stability coefficients for the study variables are evident from Table (3). The total stability coefficient for the scale was 0.878. The stability coefficients for each scale were as follows: nutrition domain had a stability coefficient of 0.770, personal health domain had 0.637, physical activity domain had 0.730, while body composition domain had a stability coefficient of 0.880. These values are considered acceptable and suitable for the purposes of this study, as the minimum acceptable threshold for stability coefficients is 0.60, and the maximum threshold is 1.

2. Research Variables

1. Independent Variables:

- Gender:
 - Male (Students)
 - Female (Students)

- College:
 - Scientific Colleges
 - Humanities Colleges
2. Dependent Variables: These variables are represented by the responses of the study sample to the items of the scale.

5. Research Procedures

1. Identifying the Study Population.
2. Distributing the questionnaire to the study sample and retrieving it. The pretest was administered on Tuesday, August 15, 2023, and the posttest was administered on Thursday, September 21, 2023.
3. Coding and entering the questionnaires into the computer for analysis and processing using the Statistical Package for the Social Sciences (SPSS).
4. Data entry into the computer, followed by extraction, analysis, discussion, comparison with previous studies, and proposing appropriate recommendations.

6. Statistical Analysis

To answer the study questions, the Statistical Package for the Social Sciences (SPSS) was used, applying the following:

- Descriptive statistics such as means and standard deviations.
- Independent Sample T-test was utilized.
- Paired Sample T-test was employed to assess differences between measurements.

Results

Firstly, the results related to the first research question, which asks: "Are there statistically significant differences at the significance level $\alpha \leq 0.05$ between the mean scores of the pre-test (before taking the course) and the post-test (after taking the course) in health awareness?"

To answer this question, the arithmetic means and standard deviations of the sample individuals' scores on the scale items were used. Additionally, the Paired Sample T-test was employed to compare between the pre-test and post-test scores, as indicated in Table (4).

Table (4): Results of the Paired Sample T-test for Significance of Differences between the Measures (N = 110)

health Awareness Level	Pre-Test		Post-Test		T-Value	Degrees of Freedom	Significance Level
	Mean	Std. Dev	Mean	Std. Dev			
Nutrition	3.00	0.943	3.63	0.756	-5.415	109	0.000*
Personal Health	4.10	0.607	4.06	0.606	0.554	109	0.581
Physical Activity	3.87	0.691	4.01	0.576	-1.639	109	0.104
Body Composition	3.30	0.838	4.10	0.577	-7.786	109	0.000*
Total Health Awareness	3.06	0.965	4.08	0.548	-9.475	109	0.000

*Significance Level $\alpha \leq 0.05$

The results presented in Table (4) indicate that the overall level of health awareness among students enrolled in physical education courses at the Arab American University was moderately average before taking the course, with a mean of (3.06) and a standard deviation of (0.965), with a relative importance to respondents of (61.2%). Personal health ranked first with a very high degree, with a mean of (4.10) and a standard deviation of (0.607), with a relative importance of (82%). It was followed by physical activity, with a high degree of importance at (77.4%). Next came body composition and nutrition, both with moderate degrees of importance, with means of (3.30) and (3.00), respectively, and standard deviations of (0.838) and (0.943), respectively, and relative importance ratings of (66%) and (60%), respectively. After taking the course, the overall level of health awareness among the students increased significantly, with a mean of (4.08) and a standard deviation of (0.548), and a relative importance of (81.6%). Body composition ranked first with a very high degree of importance, with a mean of (4.10) and a standard deviation of (0.577), and a relative importance of (82%). It was followed by personal health, which also had a very high degree of importance at (81.2%). Physical activity followed next with a relative importance of (80.2%), having a mean of (4.06) and a standard deviation of (0.606). Nutrition ranked last with a relatively high degree of importance, having a mean of (3.63) and a standard deviation of (0.756), and a relative importance of (72.6%).

Additionally, Table (4) indicates significant differences between pre-test and post-test measurements in overall health awareness among students of physical education courses, as evidenced by a T-value of (-9.475) and a significance level of (0.000), favoring the post-test. Furthermore, the results revealed statistically significant differences between pre-test and post-test measurements in the dimensions of nutrition and body composition, with T-values of (5.415) and (7.786), respectively, and significance levels of (0.000). However,

regarding the dimensions of personal health and physical activity, although differences between pre-test and post-test measurements existed, they were not statistically significant.

The researchers attribute these findings to the acquisition of information, concepts, and facts gained by students through their course studies, contributing to the adoption of numerous healthy behaviors and habits. The primary goal of the course is to increase health literacy and assist students in improving their behaviors to preserve their health. The researchers believe that the positive feelings students have toward the behaviors they engage in, coupled with the increased level of health awareness highlighted in this study, lead to the daily repetition of these behaviors, making them habitual and easily executable with minimal thought. This, in turn, emphasizes the importance of engaging in these behaviors. Failure to do so may adversely affect their health, as the development of these behaviors has an impact on human life and quality, as noted by Iman (2022), who stated that health literacy represents the intertwined fabric of information, behaviors, and positive attitudes associated with health awareness, which individuals translate into behavioral patterns that prompt them to consider what they eat, choose nutrient-rich foods, and engage in healthy behaviors and habits. This perspective aligns with the observations of Jaradat (2022), citing Neha, that an individual's mindset plays a fundamental role in health behaviors and their outcomes, as there are traits that can develop and change through altering behaviors that enhance their effectiveness toward growth in health. This is reflected in the ranking of body composition and personal health, respectively, with mean scores of (4.10) and (4.06) and standard deviations of (0.577) and (0.606), and relative importance ratings of (81.6%) and (81.2%), respectively.

Secondly, the results related to the second question, which states "Are there statistically significant differences at the significance level $\alpha \leq 0.05$ between the post-test means in health awareness attributed to the study variables (gender, major)?" To answer this question, the Independent Sample T-test was used, and Tables (5, 6) demonstrate this.

Table (5): Results of the Independent Sample T-test for the significance of differences in the level of health awareness among students enrolled in the physical education course in the post-test according to the variable (gender) (n=110)

variable	Male (n=26)		Female (n=84)		t-value	Significance Level
	Mean	Std. Dev	Mean	Std. Dev		
Nutrition	3.84	0.689	3.56	0.767	1.667	0.098
Personal Health	4.19	0.601	4.02	0.605	1.242	0.217
Physical Activity	4.05	0.711	4.00	0.532	0.444	0.658
Physique	4.00	0.824	4.13	0.479	-0.770	0.447
Total Score	4.07	0.673	4.08	0.507	0.052	0.959

*Significance Level $\alpha \leq 0.05$

The table (5) presents the mean scores and standard deviations for the post-test level of health awareness among students enrolled in the physical education course at the Arab American University according to the variable (gender). The mean score for males was (4.07)

with a standard deviation of (0.673), while for females it was (4.08) with a standard deviation of (0.507). Additionally, the table indicates the absence of statistically significant differences among students enrolled in the physical education course at the Arab American University in the post-test assessment, as the t-value was (0.052) and the significance level was (0.959), both values being greater than (0.05).

Table (6): Results of the Independent Sample T-test for the significance of differences in the level of health awareness among students enrolled in the physical education course on the secondary measure according to the (college) variable (n = 110)

variable	Humanitarian (n=17)		Scientific (n=93)		t-value	Significance Level
	Mean	Std. Dev	Mean	Std. Dev		
Nutrition	3.23	0.849	3.70	0.719	2.402	0.018*
Personal Health	4.05	0.704	4.06	0.590	0.035	0.972
Physical Activity	4.02	0.572	4.01	0.580	0.122-	0.903
Physique	3.94	0.807	4.12	0.525	1.235	0.219
Total Score	3.64	0.580	4.13	0.501	3.632	0.000*

*Significance Level $\alpha \leq 0.05$

Table (6) shows the mean values and standard deviations for the dimensional measurement of health awareness levels among students enrolled in physical education courses at the Arab American University, according to the variable (college), with a total of 110 participants. The mean score for scientific colleges was (4.13), with a standard deviation of (0.501), while for humanitarian colleges, the mean score was (3.64), with a standard deviation of (0.580). The table also indicates no statistically significant differences on the axes of (personal health, physical activity, physique), with t-values of (0.035, 0.122-, 1.235) and significance levels of (0.972, 0.903, 0.219) respectively, all of which are greater than (0.05). There were statistically significant differences favoring scientific colleges on the axis of nutrition, with a t-value of (2.402) and a significance level of (0.018). Additionally, statistically significant differences were found among students enrolled in physical education courses at the Arab American University on the dimensional measurement, favoring scientific colleges, with a t-value of (3.632) and a significance level of (0.000).

The researchers attribute these results to the fact that students share the same health awareness practices due to similar life variables; they study at the same university; thus, the university's health awareness campaigns are gender-neutral. For instance, in the domain of health awareness regarding physical activities, both genders have equal access to sports facilities and fitness centers. This was confirmed by Ayadi (2023), who stated that the lack of differences in health awareness levels among students at Shadli University based on gender is because both genders are in the same age group and experience similar conditions. This study agreed with the findings of Jaradat (2022), Rawabdeh (2021), and Hajazi (2021), which indicated no statistically significant differences based on gender in health behavior levels, differing from Salhi and Ahmed's study (2022), which found differences in health awareness levels favoring males, and Melhem's study (2019), which found differences favoring females. As for the existence of differences favoring scientific

colleges, the researchers believe that the nature of the courses studied by scientific college students is related to health aspects, making them more health-conscious than their counterparts in humanitarian colleges. This is because students in scientific disciplines have the opportunity for practical application and implementation of what they have learned, whether in laboratories or hospitals. Additionally, they are more knowledgeable about health aspects due to the research and studies they have been exposed to because of their proximity to their field of study. Thus, the importance of healthy habits and health awareness is deeply ingrained in their minds. This result aligns with the studies of Ayadi (2023), Melhem (2019), and Al-Izzi and Abdulsalam (2019).

Based on the study's results, the researchers draw the following conclusions:

1. There are statistically significant differences between the pre-test and post-test measurements of health awareness levels among students enrolled in physical education courses at the Arab American University, favoring the post-test measurement.
2. There are no statistically significant differences among students enrolled in physical education courses at the Arab American University on the dimensional measurement of health awareness levels attributed to the social gender variable.
3. There are statistically significant differences among students enrolled in physical education courses at the Arab American University on the dimensional measurement of health awareness levels attributed to the college variable, favoring scientific colleges.

Based on the study's results, the researcher recommends the following:

1. Intensifying health awareness campaigns for students in humanities colleges and university students in general.
2. Transitioning physical education courses from optional university requirements to mandatory ones due to their role in enhancing students' health awareness.

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