Full Length Research Paper

Nutrition on the physical education students' among the University of Jordan: Trends and solutions

Gebreel Agreed Alodat Alsaudi

Assistant Professor – Princess Aliaa University College

Abstract

The aim of this study was to evaluate eht **attitudes of Nutritional of the students (female) at the Faculty of Physical Education at the University of Jordan. The sample of the study consisted (200) female students. Questionnaire was used as a tool for collecting data. The results of the study showed that the degree of nutritional interest was high with a mean (3.67), in addition to that the impact of university life on sound nutritional came moderately from the perspective of the students, the results showed that the degree of health awareness among students of the College of Physical Education was high with a mean (3.77) , the role of the university in nutrition education was moderately a mean (2.76), and the results indicated that the best assessment of the solutions from the perspective of the students provide books in the library of information feeding about proper nutrition, followed by a student tests necessary to ensure the health status of students. Based on the findings of the study the researchers recommended to re-construct the Curricula which is related to Nutritional and health, and constructing workshops.**

INTRODUCTION

When young people in the universities have some problems such as lack of focus, low grades or weakness in fitness, then our direct accused is nutrition. Nutrition is one of the most important factors that affect human health and his ability to work and achieve. Good nutrition aims to guarantee the balance in energy system within human, also to increase the ability of continuous and work effectively.

We need to give more attention on providing students with several nutrition elements and needed energy so they can reach the highest level of physical and mental growth, which can be achieved through realizing the importance of nutrition in continuing their university life effectively and actively.

According to these issues, we have to point that many organizations (i.e. the American Society of Nutrition - ASN, and the American College of Sports Medicine - ACSM), have assured that perfect nutrition increase the physical activity, mental activity, and sports performance. Also these organizations recommended to take the appropriate food and liquids, and concentrated on timing of taking those meals in order to be more effective and better performance. In addition, many for years stressed that good nutrition and good fitness have important role in decrease bad health issues which related to gain extra weight. (Blair and Kohl, 1991)

Most of individuals who belongs to health centers from the outside society, aim to lose weight in order to better shape their bodies. And when starting the program you can see them asking for health and nutrition advices which help them to achieve their goal. This question specifically can put the student in a confused situation and make a problem in front of him, which may refer - according to researchers- to missing mandatory specialized curriculums about nutrition science, where we have to point that there is a strong relation between sports as a science and nutrition.

Abood *et al* (2004) stressed that teaching nutrition and student awareness about its importance results in a huge development in nutrition knowledge and developing Self-efficacy.

Aims of the Study

1-   To identify the trends of the students of Physical Education at Jordan University toward nutrition.
2-   To identify the awareness degree of Physical Education students at Jordan University about nutrition importance.
3-   To identify how good nutrition can be affected by social life at the University for Physical Education students.
4-   To identify the degree of health awareness for Physical Education students.
5-   To identify the university role in nutrition awareness.
6-   To identify the solutions and recommendations as per Physical Education students perspective.

METHODOLOGY

The study has followed the descriptive and analytical method that consistent with its aims and achieves its purposes, also we used the questionnaire as a tool to collect data.

The study population formed from (310) students of Physical Education at Jordan University, also a multi-stage cluster sample (200 students) has been chosen from the students of Physical Education, where the questionnaire been directed to them in order to get the answers for following questions:

Main question: what are the trends of the students of Physical Education at Jordan University toward nutrition? This question made the following as sub questions:

1-   What is the degree of interest toward good nutrition from the Physical Education' students side at the University of Jordan?
2-   For what degree can social life at the university affect good nutrition for Physical Education' students side at the University of Jordan?
3-   What is the degree of health awareness on Physical Education' students side at the University of Jordan side?
4-   What is the university role toward nutrition awareness?
5-   How did Physical Education' students at the University of Jordan evaluate the solutions and recommendations for improving good nutrition awareness?

The answers of each item have been scaled according to Likert scale- which is a scale of 5 degrees identify the degree of individual response on each item, and then convert it to quantity data which can be measured. As the following:

1- Very rare. 2- Rarely. 3- Sometimes. 4- Often. 5- Continuously.

And to answer the questions of the study a criteria been determined to measure the averages of study' tool, as the following:

Length Category $= \dfrac{1-5}{3} = \dfrac{4}{3} = 1.33$

Based on that, we can say that the measurement criteria on the Physical Education students at the University of Jordan are according to the following:

−   (1 – 2.33) Low degree.
−   (2.34 – 3.67) Moderate degree.
−   (3.68 – 5) High degree.
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Previous Studies

A- Arabic Studies

Mashaal and others (2012) conducted a research that aimed to identify the degree of having the knowledge about nutrition awareness by Physical Education students at the University of Jordan and what is the degree of air fitness by their side as they evaluate their selves. Also that research aimed to identify the correlation relation between their nutrition awareness and their air fitness. This research been conducted on a random sample of (251) students which have been chosen from the study community of (593) students. Also it used the descriptive methodology where researchers have used a questionnaire as a tool to collect data, that questionnaire formed of three parts; first the general nutrition questionnaire (GNKQ) which consist of four parts (nutrition advices, food groups, food select and health issues) and this questionnaire is calculated by these four parts.

The second part is a test for food trend (EAT-62) where the measurement for this is hexagonal (always, usually, often, sometimes, rarely and never). The third part included a basic data to predict the maximum usage of oxygen (Vo2max), and after analyzing the data and process it with the SPAS the results showed a lack in the general nutrition knowledge between the Physical Education students at the University of Jordan, in addition that the air fitness level was intermediate as they evaluate their selves also there are no correlation relation between nutrition awareness and fitness level to the students.

According to those results, the researchers recommended the importance of considering nutrition awareness and to work to include it as a curriculum in the universities, and to conduct similar studies on students at the Jordanian universities.

Saleh (2009) conducted a study that aimed to evaluate the nutrition status for samples of students at the ages 17-25, this study conducted on 384 students from high schools and universities in Baghdad where 123 was male and 261 females. Length, weight and body mass index have been recorded. Also the researcher analyzed the

feeding habit for a selected sample from the previous sample (237) students by filling a special questionnaires and taking information by direct interview to write the eaten food for the last 24 hours before the interview.

The results according to length and weight was rounded to what have been recorded in near Arab countries, where about 44.4-55.9% was over-weight and fat was 43.5% for both genders, Also a high percentage of used food was noticed in general, since we found that 67% are eating breakfast on daily basis, 51% eating junk food, and 62% drinking soda daily.

For drinking milk, eating vegetables and fruits we found the percentage was 47% 67% and 78% on daily basis. And around 63 of young people are practicing sports daily. In general we found that the nutrition behaviors on that sample were according to the limits and recommendations by American institute.

Alqaddoumi and Zayed (2009) made a study that aimed to identify the level of nutrition awareness on Physical Education students at Alnajah national University and Sultan Qabous University, in addition to measure the differences between the levels of nutrition awareness according to the variables of university, gender, education level and total GPA of students. In addition to determine the items which can predict the overall level of awareness, to get that done the study was conducted on a random sample consists of 207 students where 105 was from Alnajah National University and 102 from Sultan Qabous University, the questionnaire of measure the nutrition awareness which formed of 15 items was applied on this sample.

The results showed that the general nutrition awareness was low since the response percentage was 59%, also there are no differences in the nutrition awareness according to the variables of university, gender, and education level. On the other hand there were a differences according to the total GPA of students. And finally the researchers found the five most items that have the ability to predict and explain the 77.4% of general nutrition awareness.

The researchers recommended several recommendations, as re-consider the curriculums that related to health culture, and the importance of conducting workshops about nutrition awareness.

Alali and Khoila (2007) make a study called the level of nutrition and health awareness on the sports team at AL Yarmouk University. This study was conducted on a sample of 120 players have been chosen randomly from the study community that consists of 210 players.

The researchers make special questionnaire which consists of three main parts; first part related to the sports facts, the second is related to the awareness of food habits of athletics, and the third is related to their awareness of the importance of medical visits.

The study have found that 61.67% of teams' players are practicing about one hour of sports with the university team on daily basis, and 83.33% of them are practicing

other activities with the university team for less than an hour or even they don't at all, also there are 87.5% of the sample are eating three or more meals daily, and 72.5% drinking soda in high volume where no medical supervision on the teams were absence.

Alhouri (2001) make a study that aimed to build a measurement of nutrition awareness by athletics and non-athletics, and to recognize their nutrition culture.

The study was conducted on a random sample consist of 60 students from Dayali University in Iraq, where 30 students were athletics and 30 was none.

The researcher used the descriptive methodology on his research that finally showed that there is a low level of nutrition culture in general, and athletics students have a better awareness from non-athletics.

The researcher recommended to use the measurement of nutrition awareness to evaluate the levels of nutrition information that students know about, and try to educate the students about nutrition in the universities.

B- English Studies

Denny and Dunn (2007) make a study that aimed to compare the nutrition awareness with the behaviors of the Physical Education students, the sample consists of 190 student (92 Males and 98 Females) where all of them are practicing sports games.

The researchers used the general Nutrition Knowledge Questionnaire (GNKQ) as a tool to collect data, where that questionnaire contained four parts (food resources, choosing healthy food, the relation between food system and disease, and nutrition recommendations). Also they used the test of trend toward food (EAT, 26). After analyzing the results it was clear that most athletics at the university had good trends toward healthy food, whereas there's a low percentage in the nutrition knowledge since their response was 51.49 out of 101 items and the standard deviation was 13.57. In addition there were differences according to the gender variable. And for the test of trend toward food the average was 6.04 with a standard deviation of 5.96. According to the results, the researchers recommend the importance of finding a nutrition specialists to provide them the right information about nutrition and food habits, also they recommend to made more studies to measure the nutrition awareness and its effect on food habits.

Brien and Davies (2007) make a study that aimed find the relation between nutrition knowledge and the body weight indicator, this study was conducted on a sample of 500 persons where 261 where females and 239 males.

The researchers used the general nutrition questionnaire as a tool which consists of two parts (choosing food, nutrition recommendations) and there were 2.8 slim persons, 43.4% normal weight and 31% over weight persons.

22.1% of the sample were having first type of over Wight and 0.7% were having the second type of overweight.

Table 1: Averages and Standard deviation of sample' members response on the first item. (The degree of interest toward good nutrition from the Physical Education' students among the University of Jordan) In descending order

No.	Item	Average	Standard Deviation	Degree of interest
2	I care of information resource to look for information.	4.01	2.70	High
7	I care about my body shape through good nutrition.	3.89	1.19	High
8	I practice sports and consider good nutrition to get a good body shape.	3.94	0.89	High
4	I consider having a good nutrition program	3.75	0.90	High
6	I make sure of not making the student' social life at the university a limit of having aa good nutrition.	3.53	1.27	Intermediate
5	I consider saving money to have a good nutrition program.	3.21	1.18	Intermediate
2	I consider having the information required for getting a good nutrition	3.09	0.93	Intermediate
3	I care about knowing the nutrition elements that gives me energy	3.01	0.49	Intermediate
Total degree		3.67	1.33	High

Table 2: Averages and Standard deviation of sample' members response on the second item. (Degree can social life at the university affect good nutrition for Physical Education' students' side at the University of Jordan) In descending order

No.	Item	Average	Standard Deviation	Degree of interest
12	Because of university social life, students eat junk food	3.95	1.01	High
9	Early lectures is the reason why students don't eat breakfast	3.79	1.28	High
10	Afternoon lectures is the reason why students don't have lunch at home.	3.30	1.00	Intermediate
13	Financial situation can limit students from having a good nutrition	2.98	1.05	Intermediate
11	Cafeteria at the university offers healthy meals for students	1.70	0.91	Low
Total degree		3.65	1.34	Intermediate

After analyzing the results, it came that there are no relation between nutrition knowledge and the body weight indicator, also it showed that a high percentage of the sample are having a high knowledge of nutrition. These results showed that the nutrition knowledge may not be the most important factor in getting more weight but it could be the food habit that the sample followed. And according to that, the researchers recommended to made more studies to support the indicators of health status.

Statistics Process

The data have been analyzed for each response of the sample' members using SPSS program, where the averages and standard deviation were calculated also the percentages. We make sure of the tool effectiveness by calculating Cronbach's Alpha where the result was **(0.63).**

RESULTS AND DISCUSSIONS

Results that related to the first question: What is the degree of interest toward good nutrition from the Physical Education' students side at the University of Jordan?
To answer this question, the averages and the standard deviation have been calculated. (See Table 1)
  Table 1 points that the item "I care of information resource to look for information" showed the highest average that reached 4.01 with a standard deviation of 2.70 and a high degree of interest. Followed by the item "I care about my body shape through good nutrition" with

average of 3.89 and a standard deviation of 1.19 with a high degree of interest. Whilst the lowest average was for the item "I care about knowing the nutrition elements that gives me energy" with average of 3.01 and a standard deviation of 0.49 with an intermediate degree of interest.
For the interest of considering nutrition was high with average of 3.67 and a standard deviation of 1.33, where this result is referred to the nature of females, since they are taking care of their food and its type according to what fit their body shape.

Results that related to the second question: For what degree can social life at the university affect good nutrition for Physical Education' students side at the University of Jordan?
To answer this question, the averages and the standard deviation have been calculated. (See Table 2)
  Table 2 points out that the item "Because of university social life, students eat junk food" showed the highest average that reached 3.95 with a standard deviation of 1.01 and a high degree of interest. Followed by the item "Early lectures is the reason why students don't eat breakfast" with average of 3.79 and a standard deviation of 1.29 and a high degree of interest. Whilst the lowest average was for the item "Cafeteria at the university offers healthy meals for students" with average of 1.70 and a standard deviation of 0.91 with an low degree of interest. Where the effect of university social life on good nutrition came with average of 3.65 and a standard deviation of 1.34. Therefore, the good nutrition is a personal thing came up from their awareness.

Table 3: Averages and Standard deviation of sample' members response on the third item. (The degree of health awareness on Physical Education' students side at the University of Jordan side) In descending order

No.	Item	Average	Standard Deviation	Degree of interest
16	I participate in the sports activities to have fun and satisfied	4.28	1.17	High
14	I make sure to have meals	3.80	1.13	High
19	I make sure to eat vegetables and fruits	3.85	0.98	High
21	I make sure to drink water	3.74	1.09	High
15	I have a good time to sleep and rest	3.52	0.80	Intermediate
20	I take shower especially after sports activities	3.45	1.12	Intermediate
24	I walk for long distance to refresh my body	3.05	0.48	Intermediate
17	I eat meat and eggs	2.75	1.10	Intermediate
22	I drink soda	2.73	1.25	Intermediate
23	I sit in a good shape when studying	2.45	0.87	Low
Total degree		3.77	1.64	High

Table 4: Averages and Standard deviation of sample' members response on the fourth item. (The university role toward nutrition awareness) In descending order

No.	Item	Average	Standard Deviation	Degree of interest
33	The nutrition books that available in the library offers information about good nutrition	2.83	0.65	Intermediate
32	We can find nutrition books in the library	2.82	0.97	Intermediate
31	Educators collaborate with us to provide information about good nutrition	2.81	0.97	Intermediate
30	In case I need information about nutrition I go to the educators	2.56	1.16	Intermediate
26	A subject about nutrition is offered continuously	2.49	0.87	Intermediate
25	The university offers a selective subjects about nutrition	2.07	1.05	Low
29	The meals safety at the university are being controlled	2.06	1.02	Low
28	The meals in general at the university are being controlled	1.92	0.98	Low
27	The university made sessions about nutrition	1.91	0.94	Low
Total degree		2.76	1.21	Intermediate

Results that related to the third question: What is the degree of health awareness on Physical Education' students side at the University of Jordan side?

To answer this question, the averages and the standard deviation have been calculated. (See Table 3)

Table 3 points that the item "I participate in the sports activities to have fun and satisfied" showed the highest average that reached 4.28 with a standard deviation of 1.17 and a high degree of interest. Followed by the item "I make sure to have meals" with average of 3.80 and a standard deviation of 1.29 and a high degree of interest. Whilst the lowest average was for the item "I sit in a good shape when studying" with average of 2.45 and a standard deviation of 0.87 with a low degree of interest.

Results showed that the degree of health awareness on the student' side was high with average of 3.77 and a standard deviation of 1.64. Modern means of communication may have contributed to an increase in cognitive outcome among female students for sound health and sports nutrition through social networking. Which is a feature of the age and interest of the students first.

Results that related to the fourth question: What is the university role toward nutrition awareness?

To answer this question, the averages and the standard deviation have been calculated. (See Table 4)

Table 4 points that the item "The nutrition books that available in the library offers information about good nutrition" showed the highest average that reached 2.83 with a standard deviation of 0.56 and an intermediate degree of interest. Followed by the item "We can find nutrition books in the library" with average of 2.82 and a standard deviation of 0.97 and an intermediate degree of interest. Whilst the lowest average was for the item "The university made sessions about nutrition" with average of 1.91 and a standard deviation of 0.94 with a low degree of interest.

Results showed that the university role toward nutrition awareness was intermediate with average of 2.76 and a standard deviation of 1.21. Where the role of the university shows through the provision of books and resources on nutrition, and do not have a prominent role in other aspects that will educate students about proper nutrition.

Results that related to the fifth question: How did Physical Education' students at the University of Jordan evaluate the solutions and recommendations for improving good nutrition awareness?

Table 5: Averages and Standard deviation of sample' members response on the fifth item. (Students' evaluation of the solutions and recommendations for improving good nutrition awareness) In descending order

No.	Item	Average	Standard Deviation	Degree of interest
36	Availability of good food for students with a reasonable prices	4.31	1.05	High
37	Making medical visits to check students' health status	4.16	0.86	High
34	Conduct trainings and sessions about good nutrition	3.98	1.10	High
35	Focus on good nutrition in the university curriculums	3.92	1.15	High
37	To issue a medical file for each student with his medical status	2.89	0.67	Intermediate

To answer this question, the averages and the standard deviation have been calculated. (See Table 5)

Table 5 points that the best solution was "Availability of good food for students with a reasonable prices" which showed the highest average that reached 4.31 with a standard deviation of 1.05 and a high level degree of interest. Followed by the item "Making medical visits to check students' health status" with average of 4.16 and a standard deviation of 0.86 and a high degree of interest. Whilst the lowest average was for the item "To issue a medical file for each student with his medical status" with average of 2.89 and a standard deviation of 0.67 with an intermediate degree of interest.

RECOMMENDATIONS

According to the goals of the study and its results, the study recommend the following:

1- The importance of considering directing students toward nutrition awareness by educators.

2- The importance of conducting workshops about nutrition awareness for students, and to consider health awareness of students in the university curriculums which related to good nutrition.

3- The importance of increase the focus on good nutrition awareness in all country organizations through media (television, magazines, newspapers) in order to improve good nutrition.

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