

THE EFFECT OF ELECTRONIC EDUCATION ON THE LEVEL OF HEALTH AWARENESS AND ITS RELATIONSHIP WITH NUTRITIONAL BEHAVIOUR AMONG SPORTS ATHLETES AGE 17 or LESS THAN 20 YEARS

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ABSTRACT

The study aimed to identify the effect of electronic awareness on the level of health awareness among athletes, and to identify the relationship between the level of health awareness and nutritional behaviour, as well as to reveal the significance of the differences between the pre and posttests in the level of health awareness and nutritional behaviour among players ages 17 - less than 20 years To achieve this, the study was conducted on a sample of (200) young athletes practising for many sporting events in the urban areas of Karbala city, who were randomly chosen. The results of the study showed the amount of positive impact of electronic awareness on the level of health awareness of the research sample about the average correct answers and a significant level (0.002) as well as the positive effect of electronic awareness on the level of nutritional behaviour of the research sample with the average correct answers and a moral level (0.0001), and that there is a direct relationship between The level of health awareness and nutritional behaviour of the study sample.

Keywords: E-awareness, health awareness, nutritional behaviour.

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INTRODUCTION

The nutritional status is a mirror of the image of human progress in the different stages, and that caring for nutrition in the early stages of life reduces the chances of exposure to many diseases and thus can grow and develop according to the underlying genetic factors.

The concept of health education and awareness means educating individuals and raising their awareness to change their behaviour and customs, as well as instilling social habits and traditions that would support the healthy aspect and development such as exercise, healthy nutrition and healthy stigma, and one of the important aspects of growth and maintaining public health is food awareness through understanding Information about healthy food and the ability to apply this information in daily life on an ongoing basis that you gain in the form of daily behaviour, and that health awareness and success in establishing it among individuals has a close relationship with forming an important aspect of their personality, and for this, the matter should receive attention planned. Healthy nutrition means adopting healthy food behaviour and eating

habits as a result of spreading the correct food awareness, and wrong food trends, habits and traditions play a major role in the deteriorating health status of athletes, and balanced nutrition is an important component of sports training programs, training and nutrition are essential elements that raise the player to Excellence in sports activity, ⁽¹⁾ study indicates that studies can be designed in an intervention for nutrition education to assess the effectiveness of nutritional knowledge ¹, and the importance of the study comes to know the extent of the impact of the electronic awareness source in improving the level of Health awareness by improving the nutritional behaviour of young athletes.

The use of electronic devices in the management and distribution of health and medical information for awareness, education and health guidance for citizens, in general, may be available to them, and through the follow-up of researchers to the level of young athletes during the daily training, it was observed (in many periods) a decrease in the level of performance and difficulty in movement and exercise Sports, and after conducting many personal interviews it was found that they have a weak level of health awareness and nutritional behaviour, which led us to go into this problem by investing the interest of the youth segment in the daily use of the Internet and adopting it as a source of awareness, and here is a problem search.²

Research objectives

1. Knowing the effect of electronic awareness on the level of health awareness among athletes aged 17 - less than 20 years.
2. Knowing the relationship between the level of health awareness and the nutritional behaviour of the individuals in the research sample.
3. Disclosing the significance of the differences between the pre- and post-tests in the level of health awareness and nutritional behaviour among the individuals in the sample.

Research hypotheses

1. There were significant differences in favour of post-test in the effect of electronic education on the level of health awareness among athletes aged 17 - less than 20 years.
2. There were significant differences in favour of the post-test on the effect of health awareness on nutritional behaviour among the individuals in the research sample.

Research fields

- **The human field:** Athletes of the urban areas of Karbala, aged 17 - less than 20 years.
- **Time field:** From 1/7/2019 to 9/1/2020
- **Spatial field:** training centres and sports arenas in Karbala.

Introduction to the study and its theoretical background

Dietary behaviour is linked to health awareness, which includes a healthy culture that consists of acquiring health knowledge and information and transforming it into behavioural patterns in individuals.

MATERIAL AND METHODS

Research methodology and field procedures

Research community and sample

To achieve the objectives of the study, a descriptive cross-sectional approach was used in survey design (open, restricted questionnaire), because it was appropriate to the nature of the research problem. The research sample was determined by simple random method, as it reached (200) athletes. The research sample was represented by young athletes practising for many sporting activities in urban areas of the city of Karbala at the age of 17 - less than 20 years, as shown in Table (1) the research sample is homogeneous, given that they are of the same age, gender, culture and training age.

Table 1: The numbers of the research sample

S	Sports Effectiveness Practice	Number	%
1	football	75	37.5
2	handball	23	11.5
3	Basketball	34	17
4	volleyball	68	34
Total		200	100

Search variables metrics

Research tool

A questionnaire was designed for the health awareness variable and another for the food behaviour variable consisting of (10) paragraphs for each variable, and each question was answered with one of the answers (I agree), (to some extent) or (I do not agree) and compensation was described through a Likert scale to give it evaluation grades.

Scientific specifications of the questionnaire

Certify the tool

To verify the validity of the tool, virtual honesty was adopted by presenting the tool to several experts with expertise and experience in electronic publishing, nutrition and public health to express their opinion on the validity of the content of the questionnaire.

The stability of the tool

The stability of the instrument was measured using a re-test method on a sample of (25) athletes practising, and the period between the first and second application was (15) days, and when conducting the statistical treatment of stability, a simple correlation coefficient, a high correlation of (0.81) appeared.

The final application of the questionnaire

After completing the scientific conditions for the questionnaire, it was distributed to the research sample, with clarification of the study objectives and how to answer using alternatives (I agree), (to some extent) or (I do not agree) by the researcher.

The questionnaire of the health awareness scale was distributed to the research sample on 1/8/2019, and the questionnaire of the nutritional behaviour scale was distributed to the same sample on 15/8/2019, and after completing the distribution of the two questionnaires, the researchers published the electronic awareness source through social networking sites(Facebook) with the research sample and with the advice of specialists in public health and nutrition through the use of videos, illustrations, and brief articles related to the subject of the study,³ where the electronic awareness continued to spread for (8) weeks.

Then the questionnaire of the health awareness scale was distributed to the research sample again on 1/10/2019, and the questionnaire of food behaviour scale was distributed to the same sample on 10/15/2019 and then it was emptied to perform statistical treatment on it and discuss the results.

Statistical means

The data of the study phenomenon was shown by number and percentage, and the data was analyzed using the Scientific Statistical Package (SPSS), where the statistical analysis of the Chi-square (χ^2) was used and extracting the significant difference coefficient (P-value) by testing (t) between the variables within the current study where it was considered It has a significant difference when its moral value is less or equal (0.05). The program also used to find the following statistical treatments:

1. Finding arithmetic averages and percentages for each paragraph and scope to determine the level of health awareness and nutritional behaviour of the research sample.
2. One Way ANOVA analysis of dimensional comparisons between the arithmetic averages when necessary, to determine the effect of electronic awareness on the level of health awareness and nutritional behaviour.

RESULTS AND DISCUSSION

Table 2: The answers of the research sample on the axis of health awareness for the pre and post-tests

S	Paragraphs	Agreed		To some extent		I d' not agree	
		Pre	Post	Pre	Post	Pre	Post
1	Eating just before training is harmful to your health	34	172	142	23	24	5
2	The body needs energy in the event of rest and stops working	13	128	134	51	53	21
3	Laziness, fatigue, lethargy, and pallor of the face are symptoms of iron deficiency	9	137	156	58	35	5
4	Proteins are an energy source	98	184	102	16	-	-
5	Fats are essential for building tissue and making up for damage from it	93	155	90	37	17	8
6	Calcium deficiency causes osteoporosis	101	156	67	32	32	12
7	Vitamins are organic substances the body needs for growth and reproduction	88	178	102	22	10	-
8	The regular supply of carbohydrates maximizes athletic performance	92	162	82	25	26	13
9	Frequent eating of pickles leads to high blood pressure	24	116	98	55	78	31
10	Stimulants impede the absorption of iron into the body	64	133	112	57	24	10

Table 3: The relationship of health awareness for the pre and post-tests

Health awareness				Significance level
Test	Mean	SD	Standard error	
Pre	30.7	23.46	7.42	0.002
Post	69.3	24.02	7.6	

In Table (3) for the axis of health awareness, the mean of the pre-test in the pre-test was (30.7) with a standard deviation of (23.46), and the mean in the post-test (69.3) with a standard deviation of (24.02), the results showed a highly significant difference (level Morale 0.002) between the two tests and for the benefit of the posttest, where an average high correct answers to the research sample was observed, and the researcher attributes the reason for this to the effectiveness of the electronic awareness source and the research sample obtaining health information and applying it in their daily and correct behaviour in a daily

and coordinated manner, and this is consistent with the preaching and guiding study (2003) ⁴ And the study of ⁵ indicated that there is a positive relationship between the level of healthy behaviour and the impact of the media on the respondents. About the total score of the level of health awareness of the research sample, and as shown in Figure. 1, the results showed the clear effect of electronic awareness on the level of health awareness, where the results of the pre-test indicated that 110 (55%) of the research sample had sufficient awareness and the amount of height observed in the selection Al-Baaddi, where the results indicated that in the same graph with a score of 157 (78.5%), they had sufficient health awareness of a high moral difference between the two tests by 0.002 and in favour of the posttest.

It is clear from the results of the health awareness study that the athlete may be a healthy intellectual through his study of related courses such as sports culture, sports and health, and public health, but he is not consciously healthy in taking advantage of this information in the form of behavioural practices, where he supports in this regard⁶ that health awareness is the translation of correct knowledge, information and experiences into behavioural patterns that can be accomplished with any positive behaviour that has positive responses and effects on health and the ability to apply them. By looking at the questionnaire paragraphs, it was found that the highest level of health awareness was on the nutritional supplements axis as a source of energy and calcium deficiency causing osteoporosis for the pre-test, but after the introduction of the electronic awareness system gave the necessary support in the employment of information among athletes, which led to the emergence of positive results Which serves the interest of the athlete in understanding health awareness towards the pattern of nutrition and the benefits of food that contribute to raising the positive productive capacity of the athlete, and a study ⁷ indicates that young athletes will benefit from nutritional education that enhances food selection skills for health and athletic performance.

Table 4: The answers of the research sample on the nutritional behaviour axis of the pre and post-tests

S	Paragraphs	Agreed		To some extent		I d' not agree	
		Pre	Post	Pre	Post	Pre	Post
1	I eat fresh foods more than frozen	57	156	115	43	38	11
2	There is a diversification of the foods I eat daily	44	151	117	32	39	17
3	I eat pickles and spices frequently in meals	123	75	32	13	45	112
4	I eat tea and coffee in large quantities	197	64	3	2	-	134
5	Read caloric instructions when purchasing canned food	1	97	29	24	170	79
6	The need to eat breakfast	50	172	82	23	68	5
7	I take 2-3 litres of water daily	25	119	149	67	26	15
8	I prefer drinking tea immediately after eating	147	49	22	36	31	115
9	I know the proportions of carbohydrates, proteins and fats in a diet	14	33	32	88	156	79
10	I eat more vegetable oils than vegetable oils	24	42	119	133	57	25

Table 5:The relationship between nutritional behaviour of the pre and post-tests

Nutritional behaviour				Significance level
Test	Mean	SD	Standard error	
Pre	14.80	10.042	3.176	0.0001
Post	55.90	23.397	7.399	

In Table (5) concerning the axis of nutritional behaviour, the arithmetic mean in the pre-test was (14.80) with a standard deviation of (10.042), and the arithmetic mean in the post-test (55.90) with a standard deviation of (23.397), the results showed a high significant difference (level Significance 0.0001) between the two tests and in favour of the posttest, where an average height of the research sample was observed by more than three times the correct answers, and this also proves the amount of effectiveness of the electronic awareness source as shown in Figure.⁸ where the results showed the observed increase in the pattern of nutritional behaviour among athletes after Electronic awareness application, where was pre-test for sample 96 (48%) enjoyed the behaviour of good food while the same figure the amount of awareness about food behaviour has risen and the same sample by 153 (76.5%), the presence of high significant difference between the two tests by 0.0001 in favour of the posttest. The study of⁹ indicates that athletes are eager to learn and improve diet behaviours and benefit from nutritional interventions on the team, and this is confirmed by ⁹ that appropriate nutritional knowledge is useful in improving dietary habits when they have the knowledge and skills necessary for nutrition to take Healthy lifestyle options ¹⁰.

Through tables (3) and (5) we notice a direct relationship between health awareness and nutritional behaviour, and this is confirmed by a study¹¹ as a relationship was found between the patterns of reading food labels, health awareness and lifestyle behaviour, people were People who read food labels are mostly health-conscious and maintain a healthier lifestyle.¹²

CONCLUSIONS

1. The study showed the amount of positive impact of e-awareness on the level of health awareness of the research sample about the average of correct answers and a significant level (0.002).
2. The study showed the amount of positive effect of electronic awareness on the level of nutritional behaviour of the research sample about the average of the correct answers and a significant level (0.0001).
3. The study showed that there is a direct relationship between the level of health awareness and nutritional behaviour of the individuals in the study sample.

ETHICAL CLEARANCE

The Research Ethical Committee at scientific research by ethical approval of both environmental and health and higher education and scientific research ministries in Iraq

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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