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The cognitive level of nutritional culture among fitness practices (to gain weight and be healthy)

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Abstract:

Background Information

It is considered female athlete triad remains it is a trio of reduced energy availability, poor menstrual cycle, and decreased bone mass. One of the most dangerous threats to the validity of mathematics, especially when...Female athletes often have inadequate diets due to lack of nutritional knowledge and Habits Wrong food. May be Lead to Malnutrition So it is necessary to be Sports coaches, And nutritionists We are ready to address nutritional issues Signs and symptoms of the mathematics triad returned, and intervention was performed at Occasion.

Objectives: The purpose of this study was to determine nutritional knowledge for mathematics Fitness practices and how effective they are in applying their nutritional knowledge to their daily eating habits.

Methods: Done twenty athletes practicing fitness in Algeria Nutritional knowledge questionnaire it consists of forty questions. Demographic, nutritional and statistical data were analyzed.

Results: The average score was on the knowledge test with energy foods it is 1.01, and in the construction food test it is 1.18, while in the maintenance and prevention food test it is 1.19.

This study indicates that the athlete at They have combined knowledge of nutrition, healthy food choices, components of a balanced diet, and the effects of nutrition on performance.

Keywords: Nutritional culture, nutrition, fitness and female athletes

Introduction:

Human needs are many and renewable, including food, which is one of the basic and necessary elements in preserving and continuing life. Obtaining appropriate food since the beginning of creation was one of the most important factors that prompted man to leave caves in an attempt to improve his nutritional status. Over the centuries, food has become one of the most important factors. Factors for enjoying a healthy life[1].

Food is one of the basic factors for maintaining and promoting health, which is essential for human well-being, achieving economic and social development, and ensuring a better life for humans. Therefore, people everywhere place health at the top of their priorities, as no concern precedes it.

Ignorance of the basic principles of nutrition is considered a major cause of the occurrence of many malnutrition diseases, as malnutrition is not due only to the lack of economic resources, but also to the lack of knowledge and information necessary for individuals' nutritional needs, and that a society in which various malnutrition diseases are widespread is limited by the competence and ability of its members. The level of work and production is low and cannot achieve progress of any kind, because the nutritional status of individuals has direct effects on society as a whole. This means that the progressive state of society can be inferred from the health and nutritional status of its members, and the lack of intake of appropriate amounts of proteins, energy, and other nutrients.[2]

Sports Medicine, the American Dietetic Association, and Dietitians of Canada report "physical activity, athletic performance, and recovery from exercise are enhanced by optimal nutrition."[3]

Following these guidelines may improve your athletes' training, recovery, and performance. However, participating athletes may face several barriers to healthy eating, including deficits in nutritional knowledge,[4-5] Vegetarian or restricted dietary intake, or participation in exercise.[3,6-7]Athletes must get proper nutrition

Nashwan Abdullah (2009) adds that eating food inappropriately leads to health and physical problems and various diseases, so it is necessary to eat balanced and integrated food that includes all food elements according to the body's needs, as well as eating food according to body weight and the type of daily and sports activity practiced and its

requirements. Choosing the type of food and estimating the calories gained, as well as following the correct nutritional rules before, during and after training, all of this maintains the athlete's health and helps in good performance.[8].

Kamal Abdel Hamid and Abu El-Ela Abdel Fattah (1991) believe that food culture pushes the individual to follow healthy eating habits to spread correct nutritional awareness, as unhealthy eating habits and traditions play a major role in deteriorating health conditions.

He plays Attrition plays a role Vital to the health and performance of the player. The athlete's diet should be optimal in terms of food quality and quantity to replenishHis precautionsof energy and avoid fatigue or inadequate nutrition. Individual macronutrient and micronutrient needs vary based on a number of factors, including the type of competitive sport played, gender and age, but in general, adequate caloric intake from a variety of foods in the form of a well-balanced diet is preferred in promoting the health of athletes.And performance.[9]

Studies have shown that female athletes are often inadequate in meeting nutritional and energy needs (both macroNutrients and nutrientsmicroflora), leading to medical-related problems, poor performance and health, and decreased energy availability[10]

Food represents a human right, and it is among the most important environmental factors that have an impact on human life, as it comes at the forefront of what the family must provide to its members. Good nutrition for the individual is necessary for growth and development, the maintenance of damaged tissues and cells, resistance to disease and infection, and an increase in his ability to work and produce. .

It is worth noting that there is a clear imbalance in the rates of healthy weight for young people between both sexes at the present time, especially in the case of females. Perhaps the reason for this is following wrong, unbalanced diets or adhering to wrong behaviors and eating habits.

It is worth noting that the slimming diet aims to increase muscle mass along with increasing body fat. Therefore, the process of sports training is considered a vital and important part of diet and slimming nutrition programs. Since nervous tension burns a lot of calories, it must be reduced to a minimum. A range of 500 to 1,000 calories/day is added to daily meals for thin people gradually based on daily body weight and the ability to load excess calories through high-calorie-density foods.[11]

The female athletic triad is a condition that refers to the association between energy availability, menstrual function, and bone mineral density.12Athletes are distributed along spectrums between health and dysfunction in each of these areas.

Severe consequences of the female athlete triad may include irreversible bone loss, psychological consequences, disorders related to low serum estrogen levels, starvation, or possible death. In addition, endocrine, digestive, and cardiovascular disorders may result from irregular eating. Low bone density may put the athlete at risk for premature osteoporosis with resultant stress fractures of the lower extremity and hipAnd the spine.[12-13-14]

One of the key elements that influences all aspects of the female athletic trinity is nutrition. Good nutrition requires an adequate intake of calories and nutrients in order to maintain the availability of positive energy. Adequate nutrition has been shown to increase overall performance and may give athletes a competitive advantage.15Despite the importance of nutrition, many female athletes are energy or nutrient deficient, and put themselves at risk for poor performance and injury.15-16

Researchers agree that many female athletes have inadequate diets. Specific dietary practices for female athletes include caloric deficiencies, vitamin and mineral intakes.17-18It is the most importantReasons for insufficient nutritional intakehe is theLack of nutritional knowledge and nutritional misconceptions.19whereAthletes receive most of their nutritional knowledge from parents, coaches, and peers, yet many of athletes' knowledge bases are lackingIf it exists, it iscorrect .[20,21]This lack of accurate information may increase the chance that athletes will develop one or more aspects of the female athlete triad due to poor dietary choices and resulting nutritional deficiencies mentioned previously.

All females Sports practices at risk of developing part or parts of the female athlete triad, some female athletes present a higher risk for this disorder than others.22 Self-scored sports (gymnastics, figure skating), endurance sports with an emphasis on low body weight (distance running), sports that require tight-fitting clothing for competition (volleyball, swimming), use of weight categories for participation (wrestling, rowing), and emphasis on Prepubertal body for performance success (gymnastics and figure skating) all pose a high risk for developing the triad of female athletes.22 A survey of 182 college athletes found that 32% were affected by aspects of the female athlete triad, with 15.4% of swimmers and 62% of gymnasts affected.23.

The female athlete triad remains a source of concern for female athletes and those who work with them.

Many studies have shown that female athletes, including swimmers, do not have sufficient knowledge of nutrition.24This lack of knowledge suggests a need for education and education regarding proper dietary habits in this population. Currently, knowledge regarding nutritional deficiencies in female college swimmers is lacking. Therefore, specific sports-related nutritional deficiencies should be examined in order to aid in athlete education/injury prevention. Physiotherapists, as a member of the healthcare team, must have adequate knowledge of the female athlete triad, be able to recognize signs and symptoms of associated conditions and be armed with nutritional knowledge in order to provide optimal patient care and education for this population.

Roads

A form to measure the level of nutritional awareness among athletes

This form included 40 statements, the aim of which was to test the athlete's level of understanding of correct nutrition. It consisted of 3 questions to which female fitness players answered by choosing one of the suggested answers, including answering with the phrase "not sure."

- The first axis expresses the extent to which female fitness players know and understand the information and knowledge regarding the energy foods they need for physical effort. This axis consists of 14 phrases.

- The second axis expresses the extent to which female fitness players understand growth and building foods and their role in the athlete's body. The axis consists of 07 phrases.

- The third axis expresses the extent to which female fitness players understand the role of water and protective and maintenance foods in the athlete's body. The axis consists of 19 phrases.

The statements were distributed in the form according to the following ta

Table No. (01) shows the topics and phrases of the nutritional awareness questionnaire

For a distance	Number of phrases	Ferry number	
		Correct phrases	Wrong statements
Energy foods	14	01, 06, 11, 12, 17, 24	03,04,13, 23 , 25, 30, 32, 35
Building foods	7	09, 16, 18	02, 19, 20, 31
Foods protection	19	05,10,08,07,15, 21, 27,26, 33, 34, 36, 37, 38, 39, 40	14, 28,29,22

As is clear in the table above, the number of each of the 40 statements is either true or false, as the respondent answers them by choosing one of the answers (true), (false), (not sure) according to his opinion of the validity of the statement. The researcher included the phrase "not sure." "In the respondents' choices to obtain answers that actually represent their opinion of the statement and reduce the margin of guessing or providing a random answer, which will provide an interpretation that is not representative of the actual level of awareness of the athlete. Accordingly, the method for evaluating the answers was as follows:

- In case of a correct answer, two points are given
- In case of an incorrect answer, zero points are given.
- If the answer is "not sure," one point is given.

In order to analyze the results and reach a judgment about the level of awareness of the sample, there is a way to treat the questionnaire as a scale with a triple scale of answers, where we deal with it as we dealt with the food practices questionnaire, and since the rating scale here is also triple, arithmetic averages and percentages can be used. For each statement and the total score of nutritional awareness, the evaluation is as follows:

• Obtaining an average of less than (1.20) on the statement (ie less than 60%) is a result that expresses a low level of nutritional awareness.

- Obtaining an average from (1.20) to (1.59) on the statement (i.e. from 60% to 80%) is a result that expresses an average level of nutritional awareness.

- Obtaining an average of (1.60) or more on the statement (i.e. more than 80%) is a result that expresses a good level of nutritional awareness.

1-5. Statistical studies:

The goal of using statistical methods is to arrive at quantitative indicators that help us analyse, explain, interpret, and judge various problems depending on the type of problem and depending on the goal of the study. In order for us to comment and analyze the results of the questionnaire in a clear and easy way, we used the statistical analysis method.

1-6. Survey study:

To ensure the good conduct of any field research, the researcher must conduct a reconnaissance study to determine the suitability of the field of study for the field research procedures and to ensure the validity of the tool used and the difficulties that the researchers may encounter. Accordingly, we conducted a reconnaissance study on some fitness halls and halls for women.

-Scientific procedures: The two student researchers conducted some scientific procedures to investigate the validity of the questionnaire in the current study, which included:

-Validity of the tool: After the research tool (questionnaire) was judged by experts at the level of the Institute of Physical Education and Sports in Mostaganem.

Scientific foundations of the tests used:

- Reliability: The stability of a test means the extent of accuracy, consistency, or stability of its results if it was applied to a sample of individuals on two different occasions..[25]

As Van Valin says about the stability of the test, “A test is considered stable if it consistently gives the same results if it is repeated on the same subjects and under the same conditions.”[26]

One of the methods for calculating test reliability was used, which is the method of “applying and re-applying the test” (Test-Retest correlation coefficient) to ensure the accuracy and stability of the test results. On this basis, we conducted the test in two stages, with an interval of one week, holding all variables constant (same sample, same places, same time, same players).

- Honesty:

The validity of a test or scale refers to the degree to which it extends the measurement of what it was designed for. A valid test or scale is one that accurately measures all the phenomena it was designed to measure.[26](Hassanein M., 1995, page 193Using the following statistical methods, the reliability and validity of the test were calculated.

Pearson's r correlation coefficient

Calculating the stability factor:

-Reliability and validity coefficient of the questionnaire:

Table No. (02: represents the reliability and validity coefficient of the questionnaire.

Dimensions	Sample	Degree of	Significance level	Stability coefficie	Honesty coefficie	.R. Tabular
Energy foods	10	09	0.05	0,98	0,99	0.602
Building foods				0.97	0,98	
Prevention and maintenance foods				0.95	0.96	

The tabular “R” value is 0.602 at the significance level of 0.05, n=10

It is clear from this table that the correlation coefficient values for the questionnaire ranged between (0.96-0.99) for validity and (0.95-0.98) for reliability. Refer to Pearson’s simple correlation significance table to determine the reliability.And honesty The test is at the significance level of 0.05, and these values are statistically significant compared to the tabular “R”, which amounted to 0.602. Accordingly, it is clear that the

questionnaire that was used for the purpose of measuring the nutritional cultural level of female fitness players is characterized by a high degree of reliability and validity at the significance level of 0.05.

Materials

CompleteTwenty athletes who practice fitness, are eighteen years of age or olderAlgeriaVoluntarily completed all questionnairesWhich included40 phrases aimed at testing the athlete's level of understanding of correct nutrition. It consisted of 3 questions to which female fitness players answered by choosing one of the suggested answers, including answering with the phrase "not sure."

Procedures

Participants were recruited via contact withSports hall managers. AndInform coaches of the purpose of the study and ask them if they would be interested in having their athletes participate on a voluntary basis.AndAn informational message has been sentShowPurpose of the study, research methodology, importance of participation, personal requirements and team requirements. After reviewing the message and approvaltheParticipation, a visit date was scheduled for data collection.

During initial contact, emphasis was placed on reassurancetheTrained that participation in the study was voluntary, and that despite the researchers' desire to participateAll mathematics, except iftheyThey were able to decline participation at any time. They were given the option to refuse by not filling out the data collection forms (i.e., questionnaire) and were instructed to turn in blank data forms when all data were collected. This procedure allowed those who did not want to participate to maintain their privacy from other teammates, coaches, and researchers.

data analysis

Data analysis was descriptive and inferential in nature. The nutritional questionnaire produced nominal data in the form of true/incorrect answers and in the form of a total score. These data were analyzed using tests, analysis of variance, and Pearson correlation coefficient.

Results

Table No. (03): shows the percentage and arithmetic mean for the energy foods dimension

	SMA	percentage	standard deviation	the level
Prepares energy foods	1.01	50.53	0.09	low
Number of phrases	14	the sample	20	

Through the results shown in Table No. (03), the total percentage of responses to the prompt sample regarding phrases after energy foods reached 50.53%, and the value of the standard deviation reached 1.01, while the arithmetic mean reached 1.01, which is less than 1.20, which indicates that the level of nutritional culture among Female fitness athletes following low energy foods.

Which is what showed Many studies show that female athletes, including swimmers, do not have sufficient knowledge of nutrition.27This lack of knowledge suggests a need for education and education regarding proper dietary habits in this population. Currently, liters regarding nutritional and nutritional deficiencies

Figure No. (01): shows the arithmetic averages for the expressions after energy foods

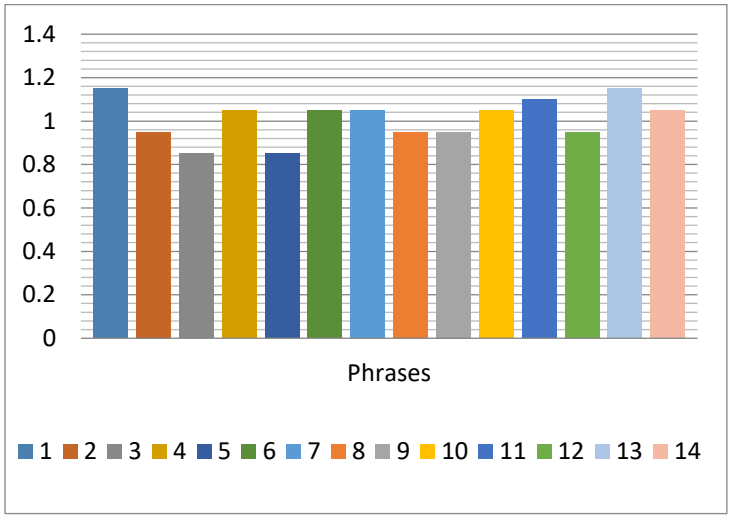

Table No. (04):

Shows the percentage and arithmetic average for a food dimension Building

	SMA	percentage	standard deviation	the level
Counting foods aBuilding	1.18	59.28	0.10	low
Number of phrases	07	the sample	20	

Through the results shown in Table No. (03), the total percentage of answers to the sample prompt on phrases after building foods was 59.28%, and the value of the standard deviation reached 0.10, while the arithmetic mean reached 1.18, which is less than 1.20, which indicates that the level of nutritional culture in Female fitness players in low-fat diet.

This is consistent with study Corley et al[28]on nutritional knowledge and eating practices among college coaches and found that coaches' poor knowledge and eating habits may significantly impact the eating habits of their athletes. In the previously mentioned study by Burns et al.27, misconceptions about nutrition among college athletes were also

thought to be related to poor information received from athletic training or coaching staff members.[29]

Figure No. (02): shows the arithmetic averages for the expressions after building foods

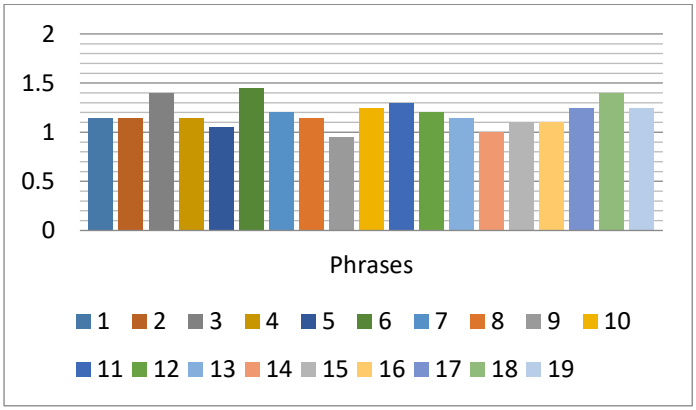

Table No. (05):

Shows the percentage and arithmetic average of the maintenance and prevention foods dimension

	SMA	percentage	standard deviation	the level
Maintenance and prevention foods	1.19	59.60	0.13	low
Number of phrases	19	the sample	20	

Through the results shown in Table No. (03), the total percentage of responses from the prompt sample regarding phrases after energy foods reached 59.60%, and the value of the standard deviation reached 0.13, while the arithmetic mean reached 1.19, which is less than 1.20, which indicates that the level of nutritional culture among Female fitness athletes have low maintenance and prevention foods.

Figure No. (03): shows the arithmetic averages for the expressions after prevention and maintenance foods

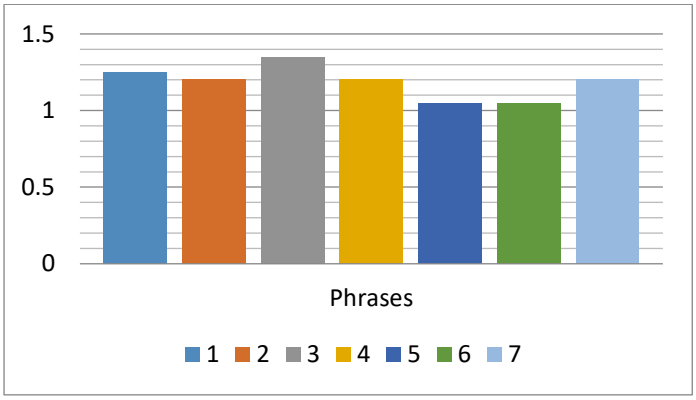

Table No. (06): Shows the arithmetic averages of the nutritional culture axes in the research sample

	SMA	**percentage**	**standard deviation**	**the level**
Energy foods	1.01	50.53	0.09	low
Building foods	1.18	59.28	0.10	low
Food maintenance prevention	1.19	59.60	0.13	low

Through the results shown in the table above, we notice that the statistical results and the arithmetic averages for the three axes of the nutritional awareness questionnaire (energy foods, construction, and prevention and maintenance) reached arithmetic

averages of 1.01, 1.18, and 1.29, respectively, and they are all less than 1.20, and the percentages reached 50.53. 59.28 and 59.60, and the highest percentage between them did not exceed 60%. This indicates that the nutritional culture of the research sample is low in all axes.

This is consistent with what I explainedA number of studies show that athletes lack sufficient knowledge crucial to preventing nutrition-related problems with performance and health.[30,31,32,33] Zuwaila et al. found.[30]That college cross-country runners lacked proper nutritional knowledge and were therefore more susceptible to health and performance problems

Vásquez-Espino et al found [34] Average scores are low among professional footballers in Spain (25.1), similar to high school students (19.5) and university philosophers (29.0). In contrast, athletic technical teams (58.5) and final-year human nutrition and dietetics students (74.6) scored significantly higher.

Conclusion

The study aimed to highlight the role of nutritional culture and its impact on the body mass index among those practicing fitness exercises, and the extent of their effectiveness in applying their nutritional knowledge to their daily eating habits. The hypothesis of the study was that the level of nutritional culture among female fitness players is low, and the descriptive approach was used to suit it. For the research topic, the researcher prepared a questionnaire consisting of 40 statements that were divided into 3 axes (energy foods, construction and maintenance) to measure the nutritional culture of the research sample consisting of 20 female fitness players. After statistical processing, the researcher concluded that the level of nutritional culture in... Energy foods, building foods, prevention and maintenance foods, and finally, the researcher recommended the need to be careful to spread nutritional culture in fitness centers and bodybuilding gyms for both sexes. Integrating nutrition specialists or training trainers for various sports activities in terms of nutritional culture and nutritional awareness.

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