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The impact of honey consumption on cardiorespiratory fitness and some physical abilities of Al-Shatra Sports Club footballer

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ABSTRACT

The healthy nutrition and how to give it has become one of the important aspects that must be focused on and given correctly along with training programs, especially since most athletes are always looking for what may enable them to compete and help them achieve the best they can and it is obvious that the best and most effective ways to develop sports capabilities through good training and ideal nutrition with that in order to achieve the best results from the training program may be worth thinking about proper nutrition that contains Natural foodstuffs Therefore, the interest in supplying players with food that suits the type of trait to be developed, as it can contribute, along with good training methods based on scientific foundations, to the development of the player's physical and physiological potential, as honey is a food rich in natural sugars, and that the importance of research lies in the need for players, in particular, to obtain energy-rich food in order to obtain the best levels or better performance, and for that the researchers prepared a diet consisting of honey And to identify its impact on the level of cardiorespiratory and physical fitness of the players of Al-Shatra Football Club in Applicants, and the problem of research arises in the lack of data of an accurate scientific nature for nutrition needed by coaches in order to contribute to the development of their training programs so that he can with knowledge of the changes that occur to the players through the application of the vocabulary of the training unit, and that the efficiency of preparing athletes depends heavily positively on functional, chemical and physical changes in the face of fatigue and this can only be achieved by regulating the relationship between the rationing of the training load for effectiveness with the organization of the nutritional aspect, either The most important objectives of the research were to identify the effect of eating honey on the level of cardiorespiratory fitness and some physical abilities of football players, either the most important hypotheses there are statistically significant differences between the two groups (experimental - control) and in favor of the experimental group in the level of cardiorespiratory fitness and physical capabilities of football players, either the most important conclusions were eating honey before physical exertion has a positive effect in delaying fatigue in football players.

Keywords: *Honey, cardiorespiratory fitness*

INTRODUCTION

The athletes always search for enabling them to increase their physical and functional abilities and raise their achievement level in competitions. It is self-evident among the best and most effective ways to legally develop their abilities is to increase organization between good training and use of an appropriate nutritional program accompanied with a training program. To achieve this organization or keep up with it, must know the correct path and determine the appropriate means and content according to the requirements of international competitions. As a result of the increased training burdens in recent decades and the competition intensity which has made relying on regular food incompatible with the size of functional needs. It must not overlook the impact of healthy nutrition and how to provide it as it has become one of the important aspects that must be focused on and provided correctly alongside training programs, especially since most athletes always searches what might enable them to compete and achieve their best. It is self-evident that the best and most effective ways to develop athletic abilities are through good training and ideal nutrition. However, the best results achieve from a training program. It may be worth considering proper nutrition that contains natural nutrients. Therefore, it is important to provide athletes with nutrients is compatible with the type of trait that is to be developed. It is possible to contribute along with good training methods based on scientific foundations, to developing the player's physical and physiological capabilities, as honey is some food rich in natural sugars.

(Monosaccharides such as fructose 38.2%, glucose 31%, and disaccharides, which constitute about 9%, including sucrose, maltose, isomaltose, etc.) These are the elements that contain the necessary nutrients. Sometimes, it is necessary to take essential foods as a nutritional supplement such as vitamins, including thiamine, to ensure the availability of the optimal amount in the body. Thiamine is one of these products that has become widely spread in the sports products market in the last ten years. As is known, vitamins have a close relationship with the fatigue factor. they are antioxidants, nutrients found in the blood that work to disarm unstable reactive molecules and render them harmless. They are one of the key elements for successful athletic performance in general and in games that require high speed.

In particular, (1). [1]As many athletes try to increase the percentage of sugar and vitamins before important competitions by loading these compounds through taking standardized doses according to the player's need for nutritional supplements as well as the type of supplement he needs. It positively affects the development of cardiorespiratory fitness and some body components and physical abilities. Therefore, it may be better to provide nutritional programs in addition to standardized training. Hence, the importance of the research lies in the necessity for players, especially, to obtain energy-rich food to obtain the best levels or perform better. For this reason, the researcher prepared a diet consisting of honey and identified its impact on the level of cardiorespiratory fitness for advanced category players of Al-Shatra Football Club.

1.2 Research Problem:

Through the researchers' knowledge of thefootball game in previous years. They noticed a lack of interest by most coaches of advanced-level teams in clubs in the impact of nutritional supplements on improving cardiorespiratory fitness and physical abilities. There is a lack of sufficient knowledge about taking appropriate doses of nutritional supplements, including fructose, glucose, sucrose, maltose, isomaltose, vitamins, etc. Due to their impact on building and restoring energy stores. Many coaches are unaware of whether these foods contribute to the development of cardiorespiratory fitness in football players. Therefore, the research problem arises from the lack of accurate scientific data on nutrition which coaches need to contribute for developing their training programs so that they can understand the changes occurring in players through the application of training unit components. The effectiveness of preparing athletes depends largely on the positive functional, chemical, and physical changes in the face of fatigue. This can only be achieved by regulating the relationship between regulating the training load , regulating the nutritional aspect, and providing the athlete with all the necessary requirements. Strengthening energy systems and their sources through the consumption of certain foods, including nutritional supplements (honey). The researcher noted that most of the players in the research community suffer from a decline in physical performance especially in the second half. This is confirmed by many coaches, observers, and specialists. Given that proper nutrition and nutritional supplements have been among the most important methods used in recent years to enhance players' physical and functional performance by enhancing rapid building processes increasing the effectiveness of the nervous system. The researcher sought to determine the extent to which honey consumption affects the development of cardiorespiratory fitness in soccer players. The researcher hopes this study will provide scientific progress and accurate information about the players which can be used to solve the research problem and provide what is best for performance or raise the level of soccer in international and local competitions.

Research objectives:

The research aims to identify:

The effect of honey consumption on the cardiorespiratory fitness level and some physical abilities of soccer players.

Research hypotheses:

1. There are statistically significant differences between the two groups (experimental and control), in favor of the experimental group, in the level of cardiorespiratory fitness and physical abilities of soccer players.

Research areas:

-The human domain.

Al-Shatra Club football players, advanced category.

-Temporal domain.

From January 6, 2025 to February 8, 2025.

-Spatial domain.

Al-Shatra Sports Club Stadium.

Research Methodology

The researcher used the experimental method with a two-group approach (experimental - control).

Research community: The study population consists of Al-Shatra Football Club players.

)[1](Adel Helmy Sheata, Creatine Supplemention and the Dreams of Short- Distance Runners. (Regional Development Center, Athletics Bulletin, lssue 28, Cairo, 2000), P.15

Study Sample: The primary sample of the study included (14) players randomly selected from the study population.

Sample Homogeneity:

Table (1): shows the homogeneity of variables among the research sample members.

Sample Size	Coefficient of Skewness	Standard Deviation(+y)	Arithmetic (x)	Unit of Measurement	Variables	ت
14	0.30	8,34	31.87	years	Age	1
	0,28	6,26	164,12	centimeters	Height	2
	,85	13,35	85,87	kilograms	Weight	3

All values of the skewness coefficient were between (+3), indicating the homogeneity of the group members in the above variables.

-Methods and devices used in the research:

The study materials consisted of the following devices and tools:

1. Measuring tape.
2. Scale.
3. Anthropometric measurements kit.

-Dietary Program:

This program is based on the selection of the usual proportions of honey (10 grams) mixed with a quantity of water (250 ml). It is consumed 20 minutes before the start of the test, in a manner appropriate to the research sample. Its purpose is to return the subjects to normal levels, in a manner appropriate to the research sample and their physical condition.

Main experiment:

Tests were conducted for the variables under study on the sample on Sunday, January 9, 1,2025.

Statistical Methodology Used:

The researchers used the following statistical treatments (arithmetic mean, standard deviation, skewness coefficient, and t-test for independent samples)

using the Statistical Package for the Social Sciences (SPSS) version (23).

Presentation, Analysis, and Discussion of Results

This chapter includes an analytical presentation and discussion of the research results, which the researcher arrived at using the experimental approach. In order to achieve the research objectives and verify the validity of its hypotheses, the researchers

presented the results and statistical data for the research sample groups in the form of tables, "because they reduce the possibility of error in the subsequent stages of the research and strengthen the scientific evidence and give it strength" (2)

Table 2: Significance of the differences between the two groups (experimental and control) regarding the cardiorespiratory fitness variables and physical abilities of the research sample members

Morale	Significance of differences		Differences		Control		Experimental		Units of Measurement	Variables
	Sig	T	Standard deviation	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation	Arithmetic mean		
Moral	**0.00**	**12.53**	**1.18**	**4.15**	**3.75**	**32.47**	**2.57**	**28.32**	Minute	Cardiorespiratory fitness
Moral	**0.00**	**12.02**	**0.04**	**2.66**	**2.01**	**41.57**	**2.05**	**44.23**	Repeat	Strength endurance
Moral	**0.00**	**10.02**	**0.78**	**3.6**	**0.11**	**51.45**	**0.89**	**47.85**	Time	Speed endurance
Moral	**0.00**	**8.64**	**0.27**	**1.96**	**0.38**	**8.23**	**0.11**	**6.27**	Time	Maximum speed

Table 2 shows the arithmetic mean and standard deviation for both the experimental and control groups, as well as the results of the t-test and its significance level for both the cardiorespiratory fitness level and physical abilities. Table (2) shows that the t-value for all variables ranged between (5.41-12.5) at a significance level of (0.000), which is less than (0.05), indicating the presence of statistically significant differences between the experimental and control groups, in favor of the best mean, which is the mean of the experimental group for all variables. The order of improvement of these variables is from best improvement to least improvement, as in Table (2). The researcher attributes this significant improvement to honey consumption and the importance of the sugars it contains, which led to an increase in cardiorespiratory fitness and delayed fatigue. This is due to the sample's reliance on the amount of sugar consumed before the tests, to a large extent, and then reliance on glucose, which the liver prepares for the body's needs. As for the control group, it relied heavily on glucose, which the liver prepares for the body's needs. Consequently, this led to the appearance of fatigue in this group more quickly than in the experimental group.

Conclusions:

1. Consuming honey before physical exertion has a positive effect on delaying fatigue in soccer players.

2. The effect of the proposed program on the study variables varied according to the following order (body mass index - body weight - body circumferences), from highest to lowest.

Recommendations:

In light of the study's objectives and conclusions, the researchers reached a set of recommendations:

1. Soccer players should consume 10 grams of natural honey before any physical exercise.

2. The need to integrate nutritional and exercise programs aimed at improving cardiorespiratory fitness and physical abilities to ensure optimal results.

3.Conduct similar studies for youth and other sports activities.

(1) Rudy Stimler; Statistical Methods in Physical Education: (Translated by) Abdul Ali Naseef (Baghdad University Press, Bagdad, 1973), p. 35

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