

# Effect of the Nutritional program according to (A) blood group on some physical variables for young footballers

<sup>1</sup>Saad Abdul-zehra Madab, <sup>2</sup>Abass Hussein Abid

**Abstract-** *The objectives of the research is to design nutritional program according to (A) blood group and identify the effect of this program on the physical variables for young footballers ,and the researcher used the experimental approach to design two equivalent groups ( control and experimental) for the research sample of (10) for the season 2018-2019, and the researcher designed the nutritional program and prepared the physical tests .The researcher used the tools and devices appropriate for the research, and the researcher conducted an exploratory experiment to ensure the safety of the devices and tools ,and the researcher made special exercises for young footballers in advance for a period (8) weeks, at the rate of ( 3) units per week ,then or the researcher conducted a meta-tests and data processing and presentation and statistical and concluded that the effectiveness of the nutrition program according to (A) blood group as well as the researcher recommends the use of the nutritional program for players to develop football physical variables.*

**Keywords:** *Nutritional, blood group and physical variables.*

## I. INTRODUCTION

The soccer game is considered one of the most athlete games importance according to Arab and foreign countries for all ages and for both genders. This made experts and coaches especially nutrition experts work to find the best ways to develop players gifts for reaching to high levels.

Nutritional programs are very important for experts ,because that the food is essential element to build the right body for athletes, cause the food is considered the essential resource to product the energy which is necessary to do daily activities. There are four blood groups (A,B,AB,O) carrying all generic characters for everybody. Then the experts have discovered that some of food kinds are harmony with one of these blood groups more than the others, so they designed food programs for each group blood.<sup>1</sup>

For that , the importance of the research leads to design the nutritional program according to (A) blood group and identify on the effectiveness of this program on the physical variables for young footballers. During some of training units of Babylon Club in soccer for young , noticed that the weakness in performance for players in competitions, so that need to study and search. The researcher see the essential cause is physical

---

<sup>1</sup> University of Babylon/College of Physical Education and Sport Science/ Iraq

<sup>2</sup> University of Babylon/College of Physical Education and Sport Science/ Iraq

weakness for the club players , and that maybe from bad food or the food is not suitable for the blood groups , so the researcher suggest to design nutritional program according to blood groups and notice the effectiveness of this program on the some of physical variables for young footballers.<sup>2</sup>

### **Research Objectives**

- 1.Design nutritional program according (A) blood group.
- 2.Identify on effect of the design nutritional program according to (A) blood group on the physical variables for young footballers.

### **Research Hypotheses**

- 1.There is a positive effect for nutritional program according (A) blood group on some physical variables for young footballers.
- 2.There are significant differences between the control and experimental group in developing physical variables for young footballers.

### **Research Fields**

- The human field : Club Babil Sports , ages ( 16-19)years, for 2018-2019 season.
- Temporal field :for the period from 1\10\2018 to 25\12\ 2019.
- Spatial field: Housing Youth Forum in Babil Governorate.

## **II. RESEARCH METHODOLOGY AND FIELD PROCEDURES**

### **Research Methodology**

The researcher used the experimental method using the two groups' equivalence method ,as it suits the nature of the problem and its objectives . As "experimental research is one of the types of scientific research through which the relationship between research variables can be measured".<sup>3</sup>

### **Research Community**

The researcher identified the research community in the Babil Sports Club in the Babil Governorate , for ages ( 16-19) years who numbered (30) players, representing a percentage of (33.3),of the original community , and he divided them into two groups ( experimental and control) , for sports season 2018-2019.

### **Means, Tools and Devices, Used in the Research**

- To survey the opinions of experts and specialists.
- Arab and foreign sources and references.
- personal interviews.
- Physical Tests in Soccer .
- Legal soccer field.
- Physical Tests in Soccer .
- (20) legal footballs.
- (3) stopwatch.

- (25) suppressing.
- Treadmill device.
- (40 M) linen tape measure.
- Sony camera.
- Computer type (*hp*).
- A medical scale for measuring weight.

### Field Research Procedures

The researcher determined the variables of the research , identify of the blood groups, and design the nutritional program according to (A) blood group.

### Determine the Tests Used in the Research

In the field of defining tests and measuring and for the purpose of identifying the right tests , the researcher used the scientific sources and references as well as presenting them on the experts – Tests for physical variable for young footballers . and some special exercises to develop the physical variables.

**Table 1.** Show the nutritional Program According to (A) Blood Group:

Blood Group	Breakfast Meal	Weight	Calories	Notes
(A)	• Honey	100 g	320	The suitable food  for this blood  group is the food  full of sugar and  poor of fat
	• Eggs	200 g	320	
	• White bread	250 g	435	
	• Yoghourt	150 g	105	
	• Garlic	50 g	66	
	• Cheese	100 g	95	
	• Tea	100 g	20	
	Total	950 g	1361	
	Lunch Meal	Weight	Calories	
	• Cooked rice	500 g	594	
	• Lentil broth	150 g	159	
	• Fish	200 g	576	
	• One apple	200 g	112	
	• Date			

	<ul style="list-style-type: none"> <li>Pecan</li> <li>Lemon juice</li> </ul>	100 g	211	(vegetarian Blood Group)
		50 g	325	
		100 g	24	
	Total	1300 g	2001	
	Dinner Meal	Weight	Calories	
	<ul style="list-style-type: none"> <li>Cooked bean</li> <li>Brown bread</li> <li>Yoghourt full of fat</li> <li>Fresh fig</li> <li>Fried potatoes</li> <li>Fresh cucumber</li> <li>Chocolate cake</li> </ul>	200 g	52	
		150 g	366	
		200 g	140	
		50 g	40	
		100 g	341	
		150 g	27	
		50 g	185	
	Total	900 g	1151	

The researcher has designed the Nutritional Program with exercises and explain it to the sample as a lectures, (4) lectures , (25) minute per lecture , he started in (7\ 7\ 2019) to (7 \ 9 \ 2019), one lecture per day and there are (15) minute for questions , and gave copies to the players (sample).

### Field Research Procedures

The researcher determined the variables of the research ,(3) Tests about physical variables in soccer game , after presenting them to the experts.

### Determine the Tests in the Research

In the field of defining tests measuring and for the purpose of identifying the best tests , the researcher used the scientific sources and references as well as presenting them to the experts for the most appropriate physical variables tests in soccer for young footballers.

### Physical Tests for soccer players:

#### 1- Speeding Test ( 30 M)<sup>4</sup>

**The objective of the test:** To measure the remove speeding for players.

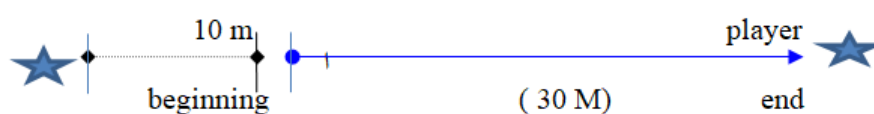
**Tools used :** Determine the zone by three lines ,the first to the beginning which about (10 m) from Test Zone , and the other which about (30 m) from end line.

**Performance specifications:**

- Recorder calls the player's names and write the test time.
- Timer count the time during ( 30 m).

**Test Instruction:** The player speeds from the beginning line which about (10 m) until he reaches the limited zone for test , then the timer begins to count the time until he reaches the end line.

- One attempt for each player.



**Figure 1.** Show speeding test

**Long jump Test<sup>5</sup>**

**The objective of the Test:** To measure the burst power for legs.

**Performance specifications:**

The testers stop behind the beginning line and the feet separated , high arms, flex the knees , push the land by the feet and jump to the longest distance,

**Test Instruction :**

- Count the distance from the beginning line to last land for the tester.
- If the tester touches the land with any part of his body except feet , consider failed attempt .
- There are two attempts for each tester.

**Speed Endurance Test ( 5 x 20 M )<sup>6</sup>**

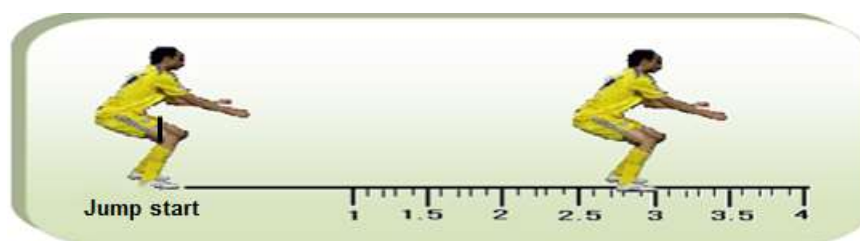
**The objective of the Test**

- To measure the speed endurance.

**Performance specifications**

• From the beginning , the testers stop and with the sign of speed, they run quickly(20 m) to the end line and back again five times.

- One attempt for each tester.



**Figure 2.** Show long jump test

## Survey Experiment

The researcher made the survey experiment in 12 \ 10 \ 2018 at four O'clock in the evening , and on the sample of (5) players from Babil club who are ( 16-19) years to see the suitability and validity of the tools for the test.

## Scientific Foundations of the Tests <sup>7</sup>

A scientific evaluation of the tests was carried out before starting the process of implementing the main experiment in order to determine its sincerity , consistency and its position according to its application to the survey sample, and below details of these tests.

### Sincerity of the Tests

In order to confirm the veracity of the tests , the researcher used the content honestly through a questionnaire and distributed it to a group of experts and specialists in the field of physical education and soccer to solicit their opinions .

### Stability of the Tests

In order to confirm the validity of the tests , the researcher used the mid-split method.

### The Objectivity

The researcher computed the tests objectivity by finding the correlation coefficient of Spearman Brown for three arbitrators, after statistically treating them.

**Table 2.** Shows the Scientific Foundation of the Tests

Tests	Validity	Coefficient of stability	Objective coefficient
Speeding Test	86	90 %	89 %
Long jump Test	85	91 %	93 %
Speeding Endurance	87	90 %	91 %

## Pre Tests

The researcher made the pre Tests on Sunday 2 \ 1\ 2018, at ten in the morning , for the tests for youth footballers.

## III. Results and Discussions

Table (3): Shows the Median and the Quartile of the Pre- and Post- Tests, the calculated Value Wilcoxon , and their Statistical Significance for the Results of the Tests in Question( control group) are Below the significance level of ( 0.05).

**Table 3.** Shows Median and the Quartile Deviation of the Pre- and Post-Tests and Value of Wilcoxon for control group

Statistical Parameters		Pre-Tests		Post-Tests		Value of Wilcoxon	Table (2) Statistical significance
Tests	Units	Median	SD	Median	SD		
Speeding Test	S.	4.83	0.38	4.40	0.94	Zero	Sig.
Long jump Test	M.	2.43	0.15	2.55	0.30	Zero	Sig.
Speeding Endurance	S.	43.70	0.52	40.24	0.16	Zero	Sig.

For the Pre- tests , Median is (4.83), Spring Deviation is (0.38), and for Post-Tests, the Median is (4.40) and Spring Deviation is (0,94), this is for first test (Speeding Test). The second Test: Median is ( 2.43) and SD. Is (0.15) for Pre-Test, and Median was (2.55) and SD. Was (0.30) for the Post- Test, and for the third Test : Median was (43.70), SD. (0.52) for Pre-Test, and Median was(40.24), SD. Was (0.16) , below the significance level(0.05) and degree of freedom (9).

**Table 4.** Shows Median and the Quartile Deviation of the Pre- and Post-tests and Value of Wilcoxon for Experimental Group

Statistical Parameters		Pre-Tests		Post-Tests		Value of Wilcoxon	Statistical significance
Tests	Units	Median	SD	Median	SD		
Speeding Test	S.	4.80	0.63	4.35	0.69	Zero	Sig.
Long jump Test	M.	2.50	0.14	2.70	0.20	Zero	Sig.

Speeding Endurance	S.	46.40	0.35	35.33	0.22	Zero	Sig.
-----------------------	----	-------	------	-------	------	------	------

For the Pre- Tests to Experimental group , Median is (4.80), Spring Deviation is (0.63), and for Post-Tests, the Median is (4.35) and Spring Deviation is (0.69), this is for first test (Speeding Test). The second Test: Median is ( 2.50) and SD. Is (0.14) for Pre-Test, and Median was (2.70) and SD. Was (0.20) for the Post-Test, and for the third Test : Median was (46.40), SD. (0.35) for Pre-Test, and Median was(35.33),SD. Was (0.22) , and Wilcoxon was( zero), below the significance level(0.05) and degree of freedom (9).

Through what was presented in Table (3and4), which shows the significance differences with statistical significance for the experimental group, the researcher attributes the reason for this to the commitment of the players to the exercises with the Nutritional Program according (A) blood group , which help to develop the level of players in physical variables .

The post tests of the group which took Nutritional program with exercises at the same time shows the significance differences because that the players have eaten the right food according to (A) blood group, so the food program made good results for the Experimental group for all tests.

This development in Post-Tests happened to the players in these tests ( speeding , long jump and speeding endurance ), because the right food according to (A) blood group made the body get more energies which they are important for every footballer to do his duty by the best way. As we showed in this research ,<sup>8</sup> group (A) blood should eat food without meat and we prefer to eat vegetal food which is suitable to their bodies and make them better without problems. So the researcher see that the Nutritional Program according to (A) blood group gives good results and as showed in Tables ( 3 and 4).

The Experimental group for the first test ( speeding), there is significance differences with statistical significance for the post test , and the same thing to other tests, that refers to the importance of the Nutritional Program , because if we notice the development in the control group ,<sup>9</sup> we find it less than the experimental group ,because it depend on the exercises without nutritional program, they ate usual food , so the exercises with right food gives good results in all tests for young footballers in this research . The researcher see that is a big relation between exercises and right food for blood group, so the coaches of soccer should give importance to this case because that affect in physical variables and get big positive results .<sup>10</sup>

#### IV. Conclusions

- 1.The Nutritional Program according (A) blood group has positive effect in developing physical variables to youth footballers.
- 2.There is positive relationship between food type and blood groups.
- 3.The simple development which happened for control group because the special exercises without Nutritional Program.



## References

- [1] Ahmed Fahim Nugamish: limit slandered levels to the important physical and skill variables as a sign to choose footballers, Master degree, physical education, Al-Qadisia university, 2009. P.68.
- [2] Peter D'Adamo, Kathrin Whitney; 4 blood groups, 4 food systems, Dar El- Farasha, 2004.
- [3] Genetet.B, aide memoire de transfusion; paris; Flammarion; 2 emeedi; 1991.
- [4] Corey Whelan ( August 10, 2018) , " what is the A Positive Blood Type Diet.
- [5] Lori Smith (2017-9-8), "The O positive ( and O negative) blood type diet".
- [6] Mcardle W.D. Katch F.I, Katch V.I, Blood Lactic acid Levels. Exercise physiology energy, Nutrition and human performance. Lea and febiges, U.S.A .
- [7] Lea and febiges, U.S.A . Bowers, Richard W. & fox, Edward L : Sport physiology, third Ed. U. S. A. . 2001.
- [8] Kamal Abdul-Hameed, Abo Al- Ola Ahmed Abdul-Fatah, Nutrition to Sports, P.254.
- [9] Mohamed Jasim Al-Yasiry; Doctrinarian Substrate for physical education Tests, Babylon university, college of physical education, 2010.
- [10] Mohamed Subhi Hasanain ; Measurement and Valuation in physical education, (Cairo, Dar Al- Fikr Al-Arabi for print and publish ) 1995, P.381.
- [11] Alsayigh, H. A., & Athab, N. A. (2016). The Study of Rectus Femoris Activity after Knee Joint Rehabilitation. International Journal of Pharm Tech Research, 9(9), 360-365.
- [12] Athab, N. A., Hussein, W. R., & Ali, A. A. M. (2019). A Comparative Study for Movement of Sword Fencing Stabbed According to the Technical Programming in the Game of Fencing Wheelchairs Class B. Indian Journal of Public Health Research & Development, 10(5), 1344-1347.
- [13] Athab, N. A. (2019). An Analytical Study of Cervical Spine Pain According to the Mechanical Indicators of the Administrative Work Staff. Indian Journal of Public Health Research & Development, 10(5), 1348-1354.
- [14] Alsayigh, H. A., Athab, N. A., & Firas, M. (2017). The Study of Electrical Activity of the Triceps Brachia Muscle according to the Chemical Changes of Water Loss during Spike in Volleyball. Journal of Global Pharma Technology, 57-62.
- [15] Athab, N. A. K., & Hassan, A. A. Analysis Study To The Joint Pain Of Knee With Indication Of Loading Mechanics For Players The researchers.