

Training strongly the speed of the competition and its impact on the size of the heart muscle and the completion of the run 800 meters under 20 years

¹Asst.Prof. Dr. WISAL SABEEH KAREEM

Abstract

Every physical effort of a sports competition has its own adaptations on different body systems, the 800-meter running competition has different functional responses and adjustments than other athletics competition and records from time to time, which indicates that there have been efforts of scientists and trainers to reach the best ways and means and methods to achieve the achievements of the new gym to conduct studies and research scientifically studied and therefore we find that systematic and continuous training and hold the knowledge of physiological adaptations that occur from which lead to the upgrading of sports and access to a higher level, which is the main purpose of the athlete in local and international competitions, adoption researchers experimental approach equal groups and identify the research society youth ran 800 meters The reality (20) hostility toward the reconstruction of under 20 years, and the application of competition and its impact speed strongly exercises in the size of the heart muscle and ran 800 meters under 20 years on the Pilot Group for eight weeks, three units per week training in the use of SPSS statistical bag data processing and the results, including the researchers reached to the most important conclusions that strongly training competition speed have a positive impact in the adaptation of the printed volume of the heart muscle and the achievement of the players, demonstrating the effectiveness of the exercise during the duration of the preparation of the Pilot Group. The researchers recommends the introduction of physiological tests and measurements through the use of the latest equipment and tools in the evaluation of the conduct of the training process.

Keywords: *training the speed competition, the size of the heart muscle, and achievement contest ran 800 meters under 20 years..*

1- Introduction

Sports training methods are the keys to the development of the level of sports performance to achieve high levels of achievement in different sports games. The diversity of these modalities and different effects stimulate interested and in the field of sports training to choose the means most influential in contributing to the development of achievement. The effectiveness of strong games is one of the sports events that received much attention in the field of research and studies, which helped many developments in training techniques and methods, and to improve the numbers recorded in these competitions on various international and global

¹ Faculty of Arts , University of Baghdad; wesalsabeeh2020@gmail.com

levels. A contest ran (800 meters) of competitions, which has become a fertile ground for researchers in the field of the physiology of sports training for research and studies that could contribute to the development and improvement of performance in this contest, as the evolution in the techniques of modern medical equipment, sports and one of the important factors in the measurement and determine the nature of the adaptations physical, physiological responses to the players by giving us a description of the careful analysis of responses to the immediate and cumulative effects of the adjustments and changes that occur as a result of the implementation of the various body cells physical loads every physical effort sports contest have characteristics imposed on various body organs sports competition, which features the physical capacities of high voltage inevitably will impose different responses to the physiological adjustments, that is why we find that sports training Continuous lead to the upgrading of sports and access to a higher level, which is the main purpose of the athlete in the competition since knowledge of these measurements and changes that occur within the body to produce energy for the performance of the important matters resulting from increased activity in the energy and materials involved in food processes to achieve the adaptations in the vital organs of the body and its members to face the fatigue resulting from physical training, sports, accordingly, the importance of the search lies in the correct scientific bases for training and competition speed and its impact on the size of the heart muscle and ran 800 meters under the 20 years that this research will contribute to a serious contribution in overcoming many of the dilemmas in the field as a result of the low numbers in this effectiveness in Particular.

1.2 The Research problem: -

Despite the progress in the field of sports training in the world, but most of the sports in the country still suffers from some of the obstacles that impede the path, especially the athletics competitions, especially the competition of 800 meters as youth researchers being academic specialists and technicians Availability in local and international championships in the presence of a decline in the physical and physiological adaptations during training and competition, the majority of players showed fatigue before reaching the end of the race, leading to a decline in the level of performance and good achievement, the researchers called for the preparation of training and competition, which is strongly speed functional adjustments in the organs of the body for athletes.

1-3 Aims of the Study:

- Preparation of strongly exercise and its impact on the size of the competition speed heart muscle and ran 800 meters under 20 years
- To identify the impact of the training and its impact in competition strongly speed of the size of the heart muscle and ran 800 meters under 20 years .

1.4 hypotheses of the Study:

- There is a positive impact strongly exercise and its impact on the size of the competition speed heart muscle and ran 800 meters under 20 years

1.5 Areas of research

1.5.1 The human scope : young players ran 800 meters in the clubs of Babylon governorate sports season 2019.

1.5.2 temporal area : the period from 1/3 /2019 until 12/ 5/2019.

1.5.3 spatial area : Golf Club Mahawil in Babil province.

3. methodology and its procedures:

3.1 Research Methodology:

variable	unit of measurement	Pilot Group		Control Group		value of the isle of Whitney		Significance
		Mediator	Deviation of spring	Mediator	Deviation of spring	Calculated	Tabular form	
Weight	Kg	68	1	70	1.24	11	0.423	Insignificant
time age	Years	18.8	0.4	19	0.44	9	0.354	Insignificant
Training Life	Years	6	0.5	5	0.6	11	0.234	Insignificant

The researchers used the experimental research method and the design of the two equal control and experimental groups.

3.2 The Research Community and its Sample

The researchers identified the research community of players of the Babil youth clubs for the 800-meter running competition and the number (four clubs) who participated officially in the championships held by the Central Federation of Athletics (20 runners), and divided into two groups of experimental group (N=10) and the control group number (n = 10), and divided in the manner of individual and marital numbers according to the sequence of their achievements.

In order to determine the starting point, the researchers found parity between the two research groups by finding differences between them in the research variables that would affect the results of the research as in table (1) if the researchers used Man-Whitney test and the calculated values of Man-Whitney were all greater than the value of Man-Whitney, and this means no moral differences between the members of the experimental groups and the control in tribal tests, i.e. the two groups are equal.

Shows the median values, the calculated and tinny-calculated Man-Whitney spring deviation, and statistical indication in the anthropometric measurements of the two research groups (1)

* Man-Whitney scheduling value at sample size n = and indication level (0.05)

Shows the values of the median, spring deviation, the calculated and scheduled man-whitney value, and the statistical indication of the research variables before and after the effort for the two research groups table (2)

3.3 The means, devices and tools used in the search:

1. The note.
2. Personal interviews.
3. The tests and measurements.
4. Video-camera number (1 180 r/d.
5. Different measurement tools (hours timing, measuring tape, a beep).
6. A Laptop HP Currie , calculator ebooks grenade type (casio).
7. The area of legal ran 400M.
8. Plastic funnels different sizes of a number (40).
9. The flags of a number.10 white and red colors.

10. laboratory equipment for use in functional tests.

- Several measurements to detect the enzyme hexokinase (katat).
- Medical materials and tools.
- Syringes to withdraw blood volume (5) cc.
- Plastic Pipes peacekeeping operations contain antifreeze blood coagulation.
- Tubing preservation (tube) containing ice.
- Sterilization materials.
- Medical cotton.

3-4 Search procedures in the field :

Heart size measurements and physiological variables: (**Qusay Muhammad Ali, 2004, p. 30**)

Through lying on the terrace in the state of rest as well as after the effort performed by the laboratory directly where the sensor tool connected to the screen and also connected to the calculator is placed on the site of the heart and then start the measurements of the specialist doctor to determine the heart measurements of the laboratory before and after the effort and record the data in a form prepared in advance for each laboratory.

Where the measurement of:

-Left ventricular diameter at the end of the constriction LVSD

this variable is measured directly by echocardiogram and the natural value OF LVSD is (27-37 mm

- left ventricular diameter at the end of the LVDD diastolic this variable is measured in a Directly through Echocardiogram and the natural value LVSD is (37-54 mm

- the size of the left ventricle at the end of the OSSLV DV this variable is measured directly by echocardiogram and the natural value LVDV is (120 mm

- the size of the left ventricle At the end of lvsV constriction, this variable is measured directly by echocardiogram and the natural value of LSV is 30 mm.

- H.R heart rate

This variable is measured directly by echocardiogram and the h.R natural value is (70-80 g/d

The completion ran 800 meters.

The goal of the test: the completion of the Contest ran 800 meters

Tools used: Strong games track , the timing of the possibility of measuring the hours more than the time during the test, and aides, the registration form.

Performance Specifications :

The test was conducted in accordance with the terms and controls of the IAAF, where each two runners were tested together for the purpose of competing, and each runner in the field of ad hoc running, and then begins the test by instructing the runners to go behind the starting line to take the starting position of standing, and when hearing the starting signal the runners start running two courses on the track to distance sprint.

Registration:

The registrar records the completion time in the form prepared for this purpose in the minute and second for the nearest fraction of a second (1) Matthew Fraser Moat: Athletics Coach., 2010. p 23.

3-4-5 reconnaissance experience:

The researchers conducted reconnaissance experience on Sunday, 3/3/2019 on four of the players ran 800meters from the research community, the application of the tests on them, and the training of the staff assistant on the implementation of the tests and the application of the pilot program a sample search.

1. Identify the difficulties and obstacles that will appear during the implementation of the tests are in place and functioning.
2. Identify the appropriate time to perform the tests How this procedure takes.
3. The compensability of the sample members on the implementation of the tests and their appropriateness for them
4. Identify devices and tools necessary for the implementation of the experiment and testing.
5. See the lactic physical effort training program.
6. The identification of training intensity through the implementation of the pilot tests on the totals.

3-4-6 Tribal tests:

The tests were conducted in Mahawil, tribal club hall on the day on Friday, 8/3/2019 On Saturday, 9/3/2019.

3-4-7 The experience of the Chairperson:

- The researcher prepared special training in real time achieved in 400m race tribal tests and the intensity of the sample members the race distance.
- The training was given by three training units per week days (Saturday, Monday and Wednesday).
- The experiment was launched on Saturday, 10/3/2019 ended on Thursday, 9/5/2019.
- The duration of the exercises within the setting of a part of the duration of the competitions and 8 weeks, thus the application of 24 Training Unit.
- The researcher followed the method of training high intensity periods recursive training to develop the speed and delivery 400meters because the development of the anaerobic capacity is only high intensity strongly available in high intensity periods recursive training not only work with the sample during the time allocated to the section of the module, but researcher was taking the remaining time of the training unit in coordination with the coach of the team there to be the province of the work of the researcher or the balance and regulate the training loads, according to the researcher training to ensure that the training process

3-4-8 A Posteriori tests :

The researchers conducted a Posteriori Tests Club Hall in Mahawil, for two days on Saturday, 11/5/2019 until Sunday, 12/5/2019 (after completion of the proposed exercises and the steps themselves and the circumstances of the tests.

3-5 Statistical tools :

The researcher used the SPSS statistical bag and the following statistical laws.

4. View results analyzed and debated

4- 1 Presentation of the results of the size of the heart and achievement and analysis and discussion:

Table (3)

Shows the median values and spring deviation of tribal and dimensional measurements of the size of the heart muscle and achievement, the calculated and scheduled Wilcoxon values and the statistical significance of the experimental group.

Shows the median values and spring deviation of measurements before tribal and dimensional voltage of the

variable	Unit of measurement	Before the effort				value of Wilcoxon		Significance
		Before measurement		After measurement		Calculated	Tabular form	
		Mediator	Deviation of spring	Mediator	Deviation of spring			
left ventricle at the end of the contraction LVSD mm	Mm	34.3	0.82	30	0.37	0	Significant	
left ventricle at the end of the consecration LVDD mm	Mm	50	1	53.4	0.65	0	Significant	
volume of the left ventricle at the end of the contraction LVSD mm	Mm	127.5	0.62	130.4	\$0.62	0	Significant	
volume of the left ventricle at the end of the consecration LVDD mm	Mm	42.3	1.35	44.2	37.1	0	Significant	
Heart Rate advisable that one can test the z/d	Z/d	70	1.25	65	0.75	0	Significant	
Achievement ran 800meters	Minutes (Mbps)	1.58	1	1.57	0.6	0	Significant	

heart muscle size and achievement and the value of Wilcoxon and the scheduled and statistical indication of the experimental group Indicates the intermediate qm and spring deviation of the dimensional measurements after the effort for the size of the heart muscle and the achievement of the experimental research groups.

Discussion:

Through what was exposed and analyzed in the table about the results of the size of the heart muscle for the dimensional measurements immediately after the effort for the experimental and control research groups where the results are:

- The diameter of the left ventricle at the end of the constriction the researchers see the differences moral because of the adjustment that occurred in the left ventricle as a result of the use of anaerobic training by the trainer in the training units where the anaerobic training leads to the decrease of the diameter of the left ventricle end of the contraction as a result of the large play that falls on the left ventricle by pushing blood all over the body and overcoming the high resistance, the heart expands to a greater degree when an additional amount of blood is carried out and causes in turn the contraction of his muscles more severely because the threads of the shoulders are greater because the shoulders are greater because the shoulder The Mayos are getting closer to the optimal degree of interlock and to generate a more severe contraction. (Gayton, Hall:1997, 135).

- The diameter of the left ventricle at the end of the diastolic researchers believe that the differences are moral due to the adjustment that occurred in the left ventricle as a result of the use of intense training competition leads to increased diameter of the left ventricle, as a result of the large play that falls on the left ventricle by pushing blood throughout the body and overcoming the high resistance resulting from arterial hypertension, i.e. that one of the factors that determine the function of the heart as a pump is the pre-load stage that sees the increased diastolic filling in the left lining Final diastolic size.

- The size of the left ventricle at the end of the diastolic researchers believe that the differences moral as a result of the increase in the volume of venous blood returning from high physical loads helps to increase the length of the muscle fiber of the left ventricle muscle as a result of cumulative responses resulting from

training loads that lead to an increase in the size of the left ventricle at the end of the diastolic, that the role of the left ventricle in sports activities through a cavity in the importance of the productivity of the periodic organ in athletes for physical activity (**Fathi Saleh And Hassan Ali Al-Ali: 2006, p. 159**).

- The size of the left ventricle at the end of the constriction the researchers see that the differences moral i.e. that the size of the left ventricle at the end of the diastolic affects significantly the strength and speed of the contraction of the heart muscle and this is affected by factors including blood volume and the amount of blood return and portability of the dilation of the ventricle to gain sufficient tension during the period of constriction to push blood to the aorta, that changes that occur in the heart muscle as a result of training lead to increase of the left ventric and a slight enlargement in the wall of the heart muscle to other changes at the cell level such as increased blood to the aorta, The size and number of mytotodondria or energy houses in the muscle cell. (**Muhannad Hussein and Ahmed Mahmoud:2009, p. 739**).

- Heart rate researchers believe that the differences are moral due to intense exercises competition adopted by the group in performance and this gives a good impression in the experimental group in increasing the heart rate adapts the heart muscle in resistance to high voltage not long possible a high level of fitness and sports science and not the appearance of fatigue cases quickly on the experimental group because the high heart rate during the effort is normal in reaction to the effort of external pregnancy focused on the body and this gets as a result of muscle work and the necessity To meet the requirements of the muscles that are stressed and energy, which the heart and circulatory system works to provide by increasing the heart rate, that high intensity exercises lead to increased systolic blood pressure while diastolic increases slightly while muscular work increases both systolic and diastolic blood pressure and reduces blood pressure in the recovery period after the performance of the effort and return to normal (**IAAF:1995, P.23**).

- Achievement 800 meters and that the training straining strongly competition used in training contributed to the increase of the physical and physiological susceptibility of the players in a significant and noticeable since the group of exercises and directed physical efforts that lead to adjustment or functional change in the internal organs of the body to achieve a high level of athletic achievement (**Resan Kharibat: 1988, p. 226**).

The trainings were regulated gradually to the degree of pregnancy in order to push the organs and organs of the body towards achieving more requirements and thus the possibility of increasing the level of abilities of the players than before, taking into account the degree of pregnancy included in the method of high-intensity and repetitive training and the method of training by the orderly change in the main components of pregnancy (strength, size and comfort) taking into account the gradual rise of the degree of pregnancy does not mean that the pregnancy increases from one day to another, but is intended to continue the level of pregnancy in a certain period of one week to two weeks, for example, and then increase the level of pregnancy in a certain week to two weeks, and then increase. Gradually (**Saleh Shafi Al-Aydi:2011, p. 303**).

5. Conclusions and recommendations :

5-1 Conclusions:

The researchers concluded from the results reached a consensus as follows:

- 1- The exercise intensity of competition and the positive impact in the Pilot Group compared to the control group.
- 2- The intensity of competition in the exercise of achievement 800 meters to the members of the research sample led to extinction in the tests and expost assessments

5 - 2 recommendations:

1. The use of modern devices that measure the chemical and functional indicators on the ground, in the codification of pregnancy training program, as it gives a true indication of the reflection of the training in pregnancy.
2. Interest in the development of the physiological and chemical variables that have a direct impact on the development of achievement in athletics competitions medium and long distance .
3. conduct similar studies on other age groups in the sport of strong games.

The sources

- Iave: Crystal Training, Athletics Bulletin, Issue/25 year 1999.
- Rafie Saleh al-Kubaisi, Hussein Ali Al-ali :17 research papers published or accepted theories and applications, Baghdad, 2006.
- Risan Khoreibet : sports training, Mosul, the Directorate of printing and publishing books, Mosul University,1988.
- Saleh Shafi Al-Aathi : sports training his ideas and applications, Baghdad, Arab House Publishing and Translation Studies, 2011.
- Gayton , Hall : Reference in Medical Physiology, University Medical Book,i1, 1997.
- Qusay Mohammed Ali: The impact of prolonged training in some functional variables for long-distance runners for young people, Master's Thesis, Basra University College of Sports Education, 2004.
- Muhannad Hussein and Ahmed Mahmoud :The physiology of physical training, i1, Amman, 2006.
- Matthew Fraser Moat: Athletics Coach, Scientific journal issued by the British Union for the Athletics. 2010

The model training units

Trainin g Unit	Filed under: Lab	intens ity 1	Redu ndan cy	The totals.	Comfort		time redunda ncy	time of the Lab	observ ations
					Duplicat es	The totals.			
1	Ran 300meters from the stand - Jump to 8 doubles the barriers up 90cm	90	3	2	2 d	4	40U Tha	24d	
		90	4	2	45 tha	2d	10U Tha	9d	
	The total							23d	
	Ran 500 meters of park	90	3	2	3d	5d	44U Tha	36d	

2	The side jumped on the Terrace distance 10m 10jumps up 30cm	90	3	2	1d	2d	13U Tha	13d	
	The total							45.18d	
3	Ran 1000meters of park	90	5	1	4d	-----	2.52d	39.35d	
	Ran jumping 200meters		4	1	2d	-----	38U Tha	- 08.00d	
	The total						5	50.05d	