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THE EFFECT OF FARTLEK TRAINING ON SPECIAL ENDURANCE AND DIGITAL ACHIEVEMENT OF EFFECTIVENESS 4 X 400 RELAY

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Abstract:
Science invests the energies of its intellectual and scientific scholars in a manner that serves the main aspects of their vital and health requirements, as well as economic, political and social aspects, and it is not excluded from these requirements as the sports aspect and some countries prepare the main demand for its effective role in the life of the individual in terms of health, economic or social because everyone knows Well, what is the role of sports and how it led to the progress of most peoples and has a prominent role in leading the world in terms of sporting and educational in universities. The study aimed to identify the effect of the use of Al -Fartlek exercises on some physical and physiological variables and performance in the hostile hostility 4 x 400 followers and thus improve the level of time performance and achievement in general. The researchers used the experimental curriculum on the research sample, which are hostile to the youth governorate of Basra, for the effectiveness of 4 x 400, and they are (8) runners and divided into two experimental groups and controlled by (4) runners for each group. Homogeneity and parity achieved between the two groups, and the procedures of the research included the composition of the diverse miracles Performance of the effectiveness of 4 x meters 400 relay and that applies to the experimental group.

Keywords: Fartlek Training; Special Endurance; effectiveness of 4 × 400 relay

1 -1 INTRODUCTION AND IMPORTANCE OF RESEARCH:

Athletics from sports activities that are considered significantly at the local and international levels, which are sports activities with many and vast attitudes and complexity and competition conditions. It is important that the performance of hostility is rapid and accurate with the ability to retain speed the length of the race and to achieve the highest level of performance during the race." In response to the nervous musculoskeletal and specialties as well as the rapid force" (Mohammad Hassan &Abu Al-Ola Ahmed: 1993). Since sports excellence depends on the upgrading of the "physical, psychological and movable elements" group, as well as the ability to develop and continue these elements through training and competition, adding the level of health and physiological properties of hostility. " With great performance with the quality of performance in the effectiveness of 4 x 400 relay, which is fast, endurance, bearing strength, speed and struggle for a long time during the race with a great deal of fitness and technical until the last meter.

Hence the importance of research through the statement of the role of self-confidence in the performance of the smash serve and smash Spiking skills, as well as the delivery of scientific information for trainers and workers in building basic baseball from small age groups on the role of these exercises and how to reduce fear and anxiety. And alternating the term Suede Fartlek and literally means playing quickly and is running for different short, medium and long lengths and variable speeds of walking (antenna) until the maximum intensity (no antenna) without any prior planning of the change that occurs in the distance of running is often done The outdoor is characterized by changing in nature (sand-green - high - low - plains - greater) (Brian: 2002). "Training of empty is used by trainers with a view to improving the general endurance and all of the speed and bears strength, and thanks to that way, the figures jumped in the middle and long distances, especially after modifying the time and specific spaces fell. (Ab-Ula Ahmed &Ahmed Nasr El Din: 1993). "The Holmer Method is particularly useful and private at the rapid enemy". The lateral belt and abdomen and back to the program through the performance of known "exercises (bending and extending the arms - bending and extending the trunk - tensile on the mind - the jump up) and that the exercises between groups or repetitions" (Hary & Simon: 1999)

Jose Manuel recalls that the total distance of running 10-12 kg includes in its first part in the first part of easy steps and run an average voltage 200-600 m and run the speed of 150-300 m and rapid 50-100 m and rising and falling slopes for 100-200 m to include this type of exercise Contents to increase influence. From antenna and ambient training, and perpendicular training in constant quality and frequency of training methods that depend primarily on the track, which affects the players bored, and thus perform training petroleum and here shows the importance of ferrate which "characterized by changing places and disparity speeds of performance to encourage, excitement, seriousness and performance activity" (Essam Abdel Khalek: 2005).

1-2 Research Problem

Through the work of researchers in the field of training and academically trained and academically. The limits required under the ingredients of the concepts of modern training approaches and these data are possible to include the following:

1. The lack of use of fertile exercises in physical preparation programs for short distances and relying on rapid power and resident training.
2. The need for training programs using fertile exercises and knowledge of their impact on some physical, physiological and skilled variables in hostile short distances 4 × 400 relay

1 -3 Research Objective

The study aims to identify the impact of a proposed training program for fertility exercises on some physical and physical variables in hosting short distances 4 × 400 relay.

1-4 hypotheses Research:

There are statistical differences between the trial and backward measurement of the experimental group and in some physical, physiological and qualified variables at an efficiency of an efficient 4 × 400 relay.

1-5 Research areas:

1-5-1 The human field: the youth runners team for short-distant of Basra, sports season 2020/2021
1-5-2 Time domain: represented by the time period from 4 / 11 / 2021 TO 3 / 1 /2022.
1-5-3 The spatial domain:. Track Faculty of Physical Education and Sports Sciences / University of Basra.

2- RESEARCH METHODOLOGY:

The researchers used the pilot curriculum in a way of experimental and control groups to suit the nature of the study

2 -1 Society and sample of research:

The research community included the opponent of Basra Governorate in the effectiveness of 4 × 400 sequence relay, 18-18 years old (18-19 years), accounting for 50% of the original research community and was divided into two groups in a lot. As shown in tables.

Table (1)
Average arithmetic and standard deviation and torsion coefficients of the experimental group In some basic variables before the experiment

variables	Measurement Unit	Average arithmetic	deviation standard	mediator	coefficient
Age	year	18.11	0.997	18	0.301
length	Cm	179.07	6.16	173	0.121
Wight	Kg	69	5.26	69.1	0.259
Training age	year	4.784	0.942	4.712	0.300

It is clear from schedule (1) values of twisting transactions for the experimental group members (0.259, 0.301) and all of which are limited between ± 3, indicating group members of the group in the variables required to study

Table (2)
The arithmetic medium, standard deviation and lesion coefficients of the experimental group In some physical variables before the experiment procedure

Tests	Measurement Unit	Average arithmetic	deviation standard	mediator	coefficient
Long jump test of stability	m	3.97	0.49	3.891	0.894
30 m speed test	Sec	4.271	08.79	4.1	0.715
Test 4×400	Min	3.86	0.55	84.3	0.218

It is clear from schedule (2) evaluations of twisting transactions to the experimental group members (2-218 - 0.815) and all of which are limited between ± 3, indicating group members of the group in those variables before the experiment

Table (3)
The arithmetic medium, standard deviation and lesion coefficients of the experimental group In some physiological variables

variables	Measurement Unit	Average arithmetic	deviation standard	mediator	coefficient
Percentage of glucose before the effort	m/desl	87.25	6.11	86	0.959-
Percentage of glucose after the effort	m/desl	91.75	7.83	96	0.872-
HR measurement before the effort	Hr/min	73.25	4.17	74	0.439-
HR measurement after the effort	Hr/min	197.12	11.72	199	1.267-
Rover test for physical efficiency	L / min	139.06	1.56	136.43	0.768-
Test the maximum for oxygen consumption	L/mil	3.33	4.31	3.426	0.702

It is clear from schedule (3) evaluations of lucky transactions for the experimental group members (1,267, 0.872) and all of which are limited between ± 3, indicating the homogeneity of members of the group in those variables before the experiment.

2-4 Constitutional study:

The researchers conducted a survey until the optimal method can be identified on 10/11/2021 at 4:00 pm at the Faculty of Physical Education, Sports Sciences / University of Basra for the purpose of identifying:

1. Suitable and suitable for the training of the efficiency.
2. Application of parts of the training program the subject to estimate its validity and study objectives.

This study has resulted in:

1 - Understanding the sample for the required measurements and the role of each of them while working in the program.

2. The validity of the training program to achieve the objectives of the study.

2-5 Main Test:

From 12 November 2021 to 11/12022 and in the reality of three training units per week, the program is applied for eight weeks divided into 24 training units and according to the proposed training platform (1)

3- VIEW, ANALYZE AND DISCUSS RESULTS:

3-1 Analysis and discussion of the significance of differences between tribal and diminishing measurements of the experimental group and value (T) calculated in some physiological variables and physical tests

Table (4)
Significance of differences between tribal and diminishing measurements of the experimental group and value (T) Calculated in some physiological variables and physical tests

Tests	pre-test		post-tests		T value	Level of significance
	M	S	M	S		
Long jump test of stability	218.75	6.75	242.527	9.01	3.632	moral
30 m speed test	4.01	0.38	3.605	0.143	2.806	moral
Test 4×400	3.86	0.551	3.81	0.217	2.669	moral
Percentage of glucose before the effort	86.25	6.11	81.87	2.847	3.553	moral

Percentage of glucose after the effort	**92.95**	**7.83**	**72.87**	**3.23**	**2.420**	moral
HR measurement before the effort	**74.25**	**4.17**	**69.75**	**3.56**	**2.460**	moral
HR measurement after the effort	**195.12**	**11.72**	**180.25**	**85.174**	**2.669**	moral
Rover test for physical efficiency	**1139.06**	**139.56**	**1270.69**	**0.89**	**3.553**	moral
Test the maximum for oxygen consumption	**3.33**	**4.31**	**3.48**	**0.116**	**2.420**	moral
lactic before the effort	**2**	**0.187**	**1.412**	**0.613**	**3.632**	moral
lactic after the effort	**11.4**	**3.7**	**3.475**	**3.11**	**2.806**	moral

It is clear from schedule (4) statistical differences at the level of (0.05) in all physiological and physical variables.

"The sports training based on scientific grounds leads to important physiological changes in different body organs" and physical activity also accompanied by physiological changes, which are integrated and organized in an integrated and organized manner through the role The nervous system is performed through neuroscience and endocrine by secretion of a range of hormones and enzymes carried by blood to all parts of the body to achieve this functionality. "Physical preparation has a clear impact on the development of physical and mobility, such as muscle strength, endurance, speed, fitness, flexibility and compounds, such as the speedy power and tolerance" (Lambert: 1994).

And (Abu al-Ela Ahmed & Ahmed Nasr El Din: 1993): "Aerobic exercises for the development of continuous and low-intensity pregnancies lead to improving the digital achievement of the streaming player and swimming," "Aerobic and maximum oxygen consumption: (Magazine of Sport : 2014) The researchers believe that the clear improvement in change rates is due to the program applied to the experimental group, which has contained weapons, threat, and the basic part of the development of public physical characteristics, especially and developing some physical drugs. There is a clear improvement in variables that there is a clear improvement in variables The physiological and researchers returned this improvement in the regularity of the pilot group at work within a training program containing fertility training and harmony between work, anti-laboratory and ambient, which led to the development of speed and greater researchers in tribal and vanity testing to increase the efficiency of the respiratory period in the delivery of oxygen to tissue As a result of the increase in the number of red blood balls and increased hemoglobin in" the blood as well as muscle efficiency in oxygen consumption and energy production " (Dik: 2006), as well as the availability of the pressure agent resulting from training in circumstances of non-availability of oxygen as a result of reducing interfaces and antenna and ambient training leads to an increase in mitochondria in addition to "increasing glucose immunity in muscle and improving the work of active enzymes ATP (ATP) and ATP phosphate" (Jose Matthew: 2002). The physiological hostility and the researchers believe that the high rate of change in physiological aspects to enjoy the exercises of fertility and the possibility of adjusting in accordance with the needs of hostilities without adhering to certain or certain space and is dependent on the change in speed during the time of performance and those who referred to That the use of empty exercises works "to increase the efficiency of "the respiratory period and raise antenna and anterior In addition to improving physiological aspects "(Welsman: 1996). Where these studies were gathered "to raise the functional efficiency of the respiratory period and "low pulse rates during healing periods as a result of the use of the method of fertarel" (Mr. Abdul Maqsoud K 1994) as well as different physical loads.

4- CONCLUSIONS AND RECOMMENDATIONS:

4-1 CONCLUSIONS:

1- The experimental group achieved a remarkable improvement in the physiological research variables (the blood glucose ratio before and after the effort- the pulse before and after the effort- physical efficiency- the maximum limit for consumption of oxygen- lactic before the effort and after the effort), as a result of regularity in a training program in the manner of fartlek where the results showed Statistically significant differences between the tribal and post -dimensional measurements and for the benefit of the post -measurement.

2- The experimental group achieved a remarkable improvement in the physical research variables (power- carrying force- maximum speed- carrying speed) due to the use of the Fartlek style, as the results showed statistically indicative differences between tribal and dimensional measurements and in favor of the postal measurement.

3- The experimental group achieved a remarkable improvement in the research variables of the effectiveness of 4 x 400, following the result of the experimental variable, Fartlek exercises, as the results showed statistically indicative differences between tribal and dimensional tests and in favor of the remote test.

4- Fartlek exercises have an effective effect on the development of air and anaerobic endurance, which thus affected the levels of performance, whether in the development of speeds and the development of physical and physiological aspects

4-2 RECOMMENDATIONS:

1- Apply the proposed program for its implications and positive impact on hostile short-distances in general in the overall setup phase.

2. Focus on the exercises of empty when developing experimental programs for their impact on antenna and ambiguity and blends between them during performance as well as their impact on physiological and physical aspects of hosting short and effective distances 4 × 400 relay

REFERENCES:

1. Abu El-Ela Ahmed ,A, F, & Ahmed ,N, D,(19930, Physiology Fitness, Dar Al Fakr Arab, Cairo,.p 56.
2. Abdel Maqsoud ,(1994), Theories of Sports Training, Training and Physiology, Al Hasnaa Library, Cairo, P154.
3. Bastouesse, A ,(1999) , The foundations and theories of sports training, Dar Al Fakr Arab, Cairo, P 78..
4. Jose M,, B,(2002) , Translation of Osman Hussein Refaat and Mahmoud Fathi Mahmoud: Foundations of education and training, International Federation of Structural Games, London, P 83.
5. Essam, A, K,(2005(, Sports training, theories and applications, Dar Al Ma'arif, Alexandria, P 234.
6. Mohamed ,H, A, &Abu, Al-A, A,(1984), Physiology Sports Training, I 1 Dar Al Fakr Arab, Cairo, P 93.
7. Mohamed, H, A,&Mohamed, N, D, R ,(2001) , Motor Performance Tests - Dar Al Fakr Arab P 64..
8. Mohamed, H, A,(1984) ,Sports Training, Dar Al Maarif, Cairo, P 82.
9. Brandon, L.J.(1995), Physiological factors asso ciated with middle distance running performance, sport medicine, vol., 19, No., 8 p. 34: 46,.
10. Brian, M, (2002) ,Fartlek Training alternation between various running speed,p98.
11. Magazine of sport, (2014), Training for running- fartlek, part 2, http://www.suite
12. Dick, M, (2006) ,Tricks of the trade for middle distance, distance & country running, physical.p 53.
13. Harry, G, & Simon ,M,(1993), Intensive 10 week training program for ultimate GB, Captain, p 183.
14. Lambert, M. Ietal (1994) , Heart Rate During training and competition for long distance running, journal of sports, special Lssue, vol (16) London, P. 685- 690,.
15. Welsman, J &, Armstrong, R,(1996) ,Aerobic Training in 10 year old and adul t,P 44.

APPINDEXE (1)
A model of proposed training units
First week

No	Practice	Performance Time	Pulse	HR	Duplication	Time Comfort between duplicates
1	**Exercise and elasticity Light**	5 mint	50%	110-120	3 time	3 mint
		5 mint	50%			
2	**Fast run 40 meters**	30 mint	30%	155-160	5 time	45 Sec
3	**Side duck walk**					
4	**Running between three constructs**					
5	**Exercise of abdominal muscles**					
6	**Throw the weight of walking**					
7	**Zig –Zag run**				20 time	
8	**Exercises calming**	5 mint				