THE EFFECT OF (CROSS FIT) TRAINING ON THE EXPLOSIVE POWER AND SPEED-DISTINGUISHING STRENGTH OF THE ARMS AMONG THE GYM GOERS (WOLF GYM)

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I. INTRODUCTION TO RESEARCH AND ITS IMPORTANCE:

Physical fitness training depends mainly on subjecting the individual athlete to various types of physical and psychological pressures, which lead according to a special planning that aims in the end for the athlete to adapt to it in a way that makes him able to perform and achieve achievement while participating in races and competitions.

Competitive fitness training (cross fit) is one of the modern training methods, as it is (permanently changing functional movements that are implemented with high intensity). So that they can face any emergency physical condition, and prepare them to face unknown things as it depends largely on high physical fitness as well as mastery of performance (technique), when you perform competitive fitness training (cross fit) you train your body on weightlifting skills And its exercises, running, rowing, rope skipping, rope climbing, pull-ups, gymnastics movements, throat, parallel bars, jumping horses...etc.

All these exercises require a comprehensive physical effort for all components of physical fitness. And the importance of the research appears in standing on the side of performance and the health side when practicing competitive fitness training and knowing everything that will be mentioned scientifically from the point of view of sports training for physical fitness.

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II. RESEARCH PROBLEM:

Work and research are continuing in various fields of life, especially the sports field, where specialists are constantly working on finding new and modern training methods and means, and the developed countries are in a constant race and competition in the development and innovation of new methods, different and multiple means and tools, and knowledge. Especially when this development coincides with special circumstances, as the countries of the world transfer these experiences and methods to benefit from them in light of the development taking place in the field of social communication, so the researchers wanted to use this type of cross fit exercises to identify its impact on the explosive power and the speed characteristic of the arms and Which in some sports events and games have special and basic capabilities according to the type of sport with the intention of benefiting and using this type in exercises at a stage of their own training, such as special physical preparation, and to motivate that, this research was conducted.

Research Objectives:

• The use of crossfit exercises by the pioneers of the wolf gym.

• Identify the impact of crossover exercises in Fayette and distinctive explosive force as soon as the force of the arms of the pioneers of fitness training hall wolfgem.

Imposition of search: -
• There are statistically significant differences between the results of the pre and post tests of the research sample in the explosive power of the two arms

• There are statistically significant differences between the results of the pre and post tests of the research sample in the speed characteristic of the two arms.

Areas of research: -
• -The human sphere: (8) of the pioneers hall fitness training wolf gym.

• Time range: 5/12/2020 - 13/2/2021.

• Spatial domain: wolf gym

The concept of training (cross fit): -
Or the so-called challenge exercises are a set of constantly changing functional movements that are implemented with tremendous intensity, and they are complex movements, that is, they require several joints during performance to implement them.

And the (Cross Fit) is a program to strengthen and prepare the core muscles. We designed it to achieve the widest possible adaptive responses. It is not considered a specialized program for physical fitness, but rather a deliberate attempt to improve physical efficiency in each of the areas of physical fitness.

(respiratory and cardiac, stamina, strength, flexibility, ability, speed, coordination, dexterity in changing direction, balance and accuracy).

III. RESEARCH METHODOLOGY AND FIELD PROCEDURES:

Research Methodology :-
The researchers used the experimental method with one experimental group with two tests, pre and post tests to suit the nature of the research.

The research sample :
(8) of the pioneers of the fitness training hall (WOLF GYM) who expressed their approval and cooperation to abide by and carry out the tests on them for the year 2020-2021.

Homogeneity of the research group:
The researcher conducted homogeneity tests indicators (Age - Age training - height - weight) using a statistical coefficient of torsion as an indication to measure homogeneity between the research sample

Means of gathering information and equipment and tools used: -
Devices and research tools:
1. A gym with all the necessities of equipment and tools.

2. Rowing device

Tests used in the research:
Physical tests:
It has been identified physical capacity for research based on tests on some of the owners of scientific expertise in the field of sports training for weightlifting and fitness

Test the explosive power of arms:
Test name: Pushing the medicine ball (3 kg) with both hands.
The purpose of the test: measuring the explosive power of arms and shoulder area.

**Used equipments:**
- flat space area-
- small rope (elastic rope)
- a chair-
- Medicine ball, weight (3) kg
- tape measure

**Doing the test:**
- The laboratory sits on the chair holding the medicine ball with both hands, with the ball in front of the chest and below the level of the chin.
- And the trunk must be adjacent to the chair.
- A rope is placed around the laboratory's chest, held from the back by a tight grip, in order to prevent the laboratory's movement forward while pushing the ball with both hands.

**Registration:** The score of each attempt is the distance between the front edge of the chair and the nearest point the ball places on the ground towards the chair, rounded to the nearest 15 cm. The best attempt of the three attempts is recorded.

- distinctive strength of the muscles in your arms as fast as:

**Test name:** Flex and extend the arms from the prone position (10) seconds

**The purpose of the test:** To measure the speed characteristic of the muscles of the arms.

**Tools used:**
- stopwatch, whistle, registration form, rectifier to calculate the number.

**Conducting tests:** The laboratory takes the position of the front support on the ground so that the body is in a straight position at the start signal. The laboratory bends and extends the arms completely, provided that it continues to repeat the performance for the largest possible number of repetitions and without stopping for a period of (10) seconds.

**Recording:** The laboratory score is the number of correct repetitions within a period of (10) seconds.

**Statistical means:**

The researchers used the SPSS statistical package and used the following statistical treatments:

1. Arithmetic mean
2. Standard deviation
3. Tests for differences (T-test) for symmetrical samples
4. The coefficient of torsion

**view and analyze the results and discussed:**
Presentation of the results of the pre and post tests of physical abilities tests (explosive ability - strength characteristic of speed) for the two arms:

Table No. (1)

<table>
<thead>
<tr>
<th>Physical exam variables</th>
<th>Measuring unit</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Teams standard deviation</th>
<th>Value (T) Calculated</th>
<th>The real sign</th>
<th>The result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical throw the ball 3 kg</td>
<td>cm</td>
<td>3.61</td>
<td>0.358</td>
<td>4.458</td>
<td>0.323</td>
<td>0.0524</td>
<td>-16.199</td>
</tr>
<tr>
<td>Forward lean 10 seconds</td>
<td>repetition</td>
<td>13.00</td>
<td>2.280</td>
<td>14.83</td>
<td>2.136</td>
<td>0.1666</td>
<td>-11.000</td>
</tr>
</tbody>
</table>

It shows the arithmetic mean and standard deviation before and after the test (throwing a medical ball 3 kg - the speed characteristic of the arms), the arithmetic mean of the differences between them and their deviation, the calculated (t) value, the real significance and the result for the members of the research sample.

When the moral value (sig) <(0.05) at the degree of freedom (5) and the level of significance (5%).

It is evident from Table (1) that the results of the differences between the pre and post tests and for both tests (the explosive power and the speed-distinguished force of the two arms) achieved significant results in favor of the post test, as the statistical significance of the explosive power test was at the degree of freedom (5) (0.000) and it is less than the significance level (0.05). This indicates the presence of a significant difference between the pre-test and posttest and for post-test, Statistical significance was also to test the distinctive force as quickly when the degree of freedom (5) (0.000) and is less than the significance level (0.05). This indicates the presence of a significant difference between the pre-test and post-test and for post-test.

IV. DISCUSSING THE RESULTS OF THE PRE AND POST TESTS FOR PHYSICAL ABILITIES TESTS (EXPLOSIVE ABILITY - SPEED CHARACTERISTIC OF THE TWO ARMS):

It is clear from Table No. (1) that the results of the differences between the pre and post tests and for both tests (explosive power and speed-distinguishing power of the two arms) achieved significant results in favor of the post test.

The researchers attributes the development in explosive power to the legalization of training intensity, as (Hussein Ali and Amer Fakher 2006) points out that “the process of legalizing training intensity in its different degrees and related to the type of sporting activity is extremely important for both the coach and the athlete when preparing the training curriculum in the different training methods.”

The researchers also attributes that the effectiveness of the exercises used correctly and scientifically is successful and influential in terms of the intensity and volume of sports training and comfort according to the intensity that matches the requirements of strength characteristic of speed, as it was associated with the development of the ability of nerve impulses, which is the main indicator in the occurrence of muscle contraction, which was affected by the relevant exercises in developing some physical abilities.

Inference:

Within the limits of the research problem and its importance, and in light of its objectives and hypotheses, the nature of the sample, and within the framework of statistical treatments, interpretation and discussion of the results, the researcher was able to reach the following conclusions:

1. Cross fit exercises had a positive effect on the explosive strength of the arms of the wolf gym pioneers.
2. Cross fit exercises positively affected the speed characteristic of the arms of the pioneers of the wolf gym.

Recommendations:
1. The necessity of legalizing the Cross Fit programs in a sound and scientific manner, taking into account the conditions and specifications necessary for sporting events and according to the characteristics of each age group.
2. Conducting more studies on Cross Fit exercises for different age groups to benefit from the uses of this type of exercise.
3. Using Cross Fit exercises during the special preparation period for all sporting events.
4. When using Cross Fit exercises, the anatomical conditions of the body must be taken into account while performing the exercises, especially weight training, to avoid injuries.