International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 02, 2020
ISSN: 1475-7192

The Effect of Various Training Methods Exercises in Developing the Muscular Strengths of the Agonist Muscles for Swordsmanship Skills

[1]Assist. Prof .Dr. Firas Talib Hamadi ; [2]Assist. Prof .Dr.Mushtaq Hameed Abdullah[1]

Abstract:

According to the witnessed worlds' developments, especially in sport field, there are many methods in developing the capabilities of players, whether these capabilities are skill specific to sports practice or physical and there are many methods and theories of training from which the coach can create an effective training curriculum that can improve performance and hence the **research importance** lies through the use of exercises with various training methods and get benefit from it as a means to develop the level of Diyala Sports Club in a fencing game, while the **research problem** lies in the experience of The Researcher being one of the games' specialists, he noticed that there is a weakness in the exercises of the muscular strengths of the dueling players due to lack of familiarity with the appropriate training methods to develop The level of the players, especially the character of the strengths of the muscles of the hands and feet. The researcher used the experimental approach for its suitability to the nature and problem of the research, he conducted the exploratory experiment and pre- tests and applied his exercises according to the main experience of the research and then the post- tests in the same conditions for the pre- tests. The researcher used the statistical bag Spss to extract the results and by which the researcher concluded that the training methods that used and including Plyometric training in developing the muscular strengths of the agonist muscles for swordsmanship skills for Diyala Sports Club players in a fencing game.

Keywords: Various Training Methods, Developing the Muscular Strengths, Swordsmanship Skills

1- Introduction

According to the developments that the world is witnessing, especially in the sports field, there are many methods for developing the capabilities of players, whether these capabilities are special skills in sport or physical exercise such as the characteristics (strength, speed, strength characterized by speed, and length of strength .... etc.) that all players need according to their professional sport. The sport of fencing is one of these sports that require skillful capabilities and special physical characteristics. One of the most important of these requirements is the muscular strength on which the swordsman relies directly on performing most of his movements, as the ability of muscles, especially the legs muscles, arms, shoulder and torso, is important for the swordsman not for the sake of moving the weapon only, rather, in providing a very large amount of speed in moving the swordsman's trunk, which rushes forward strongly and then bounces back, as the swordsman performs one of the offensive movements to record a touch on the competitor or return to ready position or . There are many methods and theories of training from which (Al-Ramly, 1981, p. 111)back to avoid the opponent's touch

[1]Kirkuk University / College of Physical Education and Sports Science
Altaaefiras@gmail.com
[2]Basra University / College of Physical Education and Sports Science
mushtaq1969hameed@gmail.com

the trainer can create an effective training curriculum that enables the athletes to improve his performance. Weightlifting and plump training curricula are the most used methods for developing muscle ability, and the challenge of challenging a fencing game that needs special strength for its success is one of the basic skills The task is to achieve touches and win, hence **the importance of research** : the use of exercises with various training methods and get benefit from it as a way to develop the level of the Diyala Sports Club in a fencing, while the **research problem** lies through the researcher's experience as he is one of the specialists in the game, note that there is a weakness in training facets the muscular strength of fencing players due to lack of familiarity with appropriate training methods to develop the level of athletes , especially the characteristic aspects of strength of the muscles of hands and legs. If exercises exist in training curricula, it is not possible to know the training method or the best method to develop that characteristic, so the researcher considered studying this problem and knowing the extent of the impact of the methods used the research and the extent of its reflection in the development of the challenge skill for the fencing players, and the research aims to be exposed on the influence of the method of developing the muscle strength aspects of the agonist muscles for swordsmanship skills in fencing , as for the **research hypotheses**, there are significant differences between the pre-test and the posttest tests and for the favor of the posttest tests of the control and experimental groups to develop the facet of the muscle strength of the muscles involved in the swordsmanship skill, and the presence of significant differences in the posttests between the two control groups experimental and for favor of the experimental group in the current study tests'.

2- Research methodology and field procedures :-

2-1 Research methodology :-

The experimental approach is one of the most used scientific research methods in the sport field "because it is based on direct and realistic interaction with different phenomena, and is based on two main pillars, namely observation and experience of all kinds" (Abdel-Mo'ti Muhammad Assaf: 80,2002), and that the choice of the method depends on the nature of problem to solve. Therefore, the researcher used the experimental method using the experimental design of the experimental and control groups

2-2 Research sample :-

The research sample was represented by the players of the Diyala Sports Club team, of fencing game, and they were chosen intentionally, which is (10) players, and they were randomly divided into two groups, each group includes (5) players for the experimental group and (5) players for the control group, and the researcher made a homogeneity and equality between groups.

Table (1)
Shows the homogeneity and equivalence of groups in the search variables

No.	Variable	Control group			Experimental group			Calculated T value
				Difference Coefficient			Difference Coefficient	

1	Age (year)	20.3	0.65	4.34	20.3	0.34	1.72	0.4
2	Weight (kg)	74.32	2.17	1.412	72.32	2.85	3.88	0.63
3	Length (cm)	187.5	3.55	1.97	186.6	3.54	1.88	0.36
4	The arms strengths / d	61	2.22	3.69	62	2.26	3.69	0.70
5	The legs strengths / d	262.2	1.23	0.47	270.1	1.24	0.48	0.13
6	Swordsmanship Skills	2.14	0.36	16.45	2.4	0.44	18.66	0.49

Tabular (t) value at df (10) and at significance level (0.05) = 2.23

3-2 collecting information, tools and devices used:-

Research tools are the means by which the researcher can collect data to achieve the goals of the research and solve the problem. The researcher used the following:

* Arabic and foreign sources (books , research, magazines, the Internet)
* Tests and measurements
* Observation and experimentation
* Interviews
* Experience
*Work Team
* (2) Stopwatches
* Metal tape measure
* Sticky tape
* Chalk for marking
* Dueling weapons
* Medical balls with 6 different weights (1 kg, 2 kg, 3 kg, 4 kg)
* A fencing figure of a test

* Wooden boxes jumped as follows:
  - (3) Boxes with a height of 35 cm.
  - (3) Boxes with a height of 45 cm.
  - (2) Boxes with a height of 50 cm.

* A special chair for throwing a medical ball

4-2 Research Procedures:

4-2-1 Exploratory experience:

The researcher conducted the exploratory experiment on Monday 5/8/2019 for (3) players from Shahrban Sports Club of fencing, and the aim was:

* Knowing the suitability of the tests for the level of the sample and their understanding of their use
* To ensure the appropriate time and place to perform the tests
* Exclude errors that may occur through performing the test
* Know the time taken during the implementation of the test
* Learn about the most important difficulties and problems that the researcher may face during carrying out the tests
* Know the adequacy of the work team and their understanding of the tests established.
* Learn about the organization and sequence of performance of tests and measurements.

4-2 Specifications of the tests used :

p. 115),(Bastouisy, 1999* **Testing the distinctive velocity of arms (10s)**

- **Test's goal:** to measure arms' speed-specific power

- Tools: Stopwatch

- Performance specifications: Burpee (Squat Thrust) (Bending and stretching the arms in 10 seconds)

.Recording method: Calculates the number of folds and arms extended within 10 seconds

Test aim: to measure the muscular capacity of the arms

Tools: a chair with a straight back, with a belt or safety belt attached from the shoulder area after what was attached from the waist or belt, as shown in Figure (10), a medical ball with a weight (4 kg, 5 kg, or 6 kg) The weight is determined by the type of sample, as the ball weight (4 kg) is determined by the fact that the sample is of the youth.

Method of performance: The athletes sits on the chair and fastens by belt from the chest area, then the ball placed in front of the chest and then collects the largest possible energy to throw the ball.

Recording method: the distance between the edges of the front seat is calculated to the point of the ball falling, and the throwing distance is between (3 - 3.5 m). If the athletes threw the ball less than this distance, the attempt is weak, but it is .counted

Partridge test for a distance of 10 seconds:

Test name: Cartridge for a distance of (10 seconds)

Test purpose: To measure the characteristic force at the speed of the two legs

Tools: specific area, stopwatch, whistle, and tape measure

Performance description: The athletes stands behind the starting line, and when you hear the beep, he rushes on one leg to travel as long as possible within (10 seconds).
-Two attempts are given to each player and the best attempts are made.
-Ensure that the other leg does not touch the ground during the test.
-The distance covered is measured by the measuring instrument of meter and its parts.

Challenge Speed Test (Bastouisy: 428,1999) :

Test aim: to measure the speed of the challenge frequency.

The tools: a Foil - a person to draw 6 circles with a diameter of 10 cm with dimensions of 5 cm on the wall, the height of the circle (1) commensurate with the height of the player. Sticky tape to measure the challenges distance.

Performance description: Upon hearing the signal, the athletes challenge the figure placed in front of him.

Recording method: calculates the number of correct challenges that can be performed in 15 seconds.

2-5 Pre-test:

The researcher conducted the pre- tests on Monday 12/8/2019 for the main sample of research, all conditions are recorded.

2-6 The Main experience:

The researcher developed his exercises according to the scientific foundations of the curricula used, as the exercises were given during the main section of the training unit in the training curriculum of the team coach. The exercises were applied in the two methods, the plasma and the interval training, and the intensity ranged between 65-75%, and the frequency of 8-10. The groups ranged from 3-4 groups, and the pulse was used as an indicator of intermission between exercises and groups, as the rest period reached between (1-1.30) minutes and between the groups (2) minutes, and the researcher used two training units per week on Sunday and Wednesday for the purpose of recovering the adequate recovery period (that the loads cycle that mainly depends on the anaerobic energy system requires functional devices to a period of (48-72) hours after anaerobic work of high intensity to reach the stage of excess compensation to repeat the same work). The curriculum included three months and 12 weeks. The training units reached 24 units. The training unit time is 120 minutes. This experiment was carried out on Wednesday 14/8/2019 and completed on Wednesday 6 / 11/2019.

2-7 posttests

The researcher conducted these tests on Monday 11/11/2019, with the same pre-test conditions.

2-8 Statistical means

The researcher used the SPSS statistic to process the data and extract the results.

3- Results : Presentation and discussion

3-1 presenting and discussing test results for the control and experimental groups of research variables:

Table (2)
Shows pre and posttest results' for the control and experimental groups of research variables

No.	Tests	Control group				Experimental group			
		pre	post	probability of a error	Calculated T value	pre	post	probability of a error	Calculated T value
1	The arms strengths / d	61	71	2.4	4.33	62	76	3.5	4.12
2	The legs strengths / d	261.2	269.5	3.02	3.09	261.1	272.2	3.6	3.18
3	Swordsmanship Skills	2.14	3.47	0.19	7	2.3	7	0.23	17.28

By Table (2), it became clear to us that all the research variables and the two groups have had an evolution through the significant differences between the calculated (T) and tabular values between the pre and post tests, as the calculated T values were their largest tabular evaluator at a degree of freedom (5) And the probability of a error (0.05). which indicates that there are significant differences in favor of posttests, that is to say, that the exercises used work on developing the strengths of the muscles of the hands and legs in the body and have an effect in developing the challenge of the fencing players. The reason for the development of the two groups is also due to their continuing and regular training in this, and this certainly helps to develop physical and skill traits at the same time because it is one of the peculiarities and indicated that (Al-Awamri, 1983, p. 301) and (Allawi, 1986, p. 17)principles of the science of training. In addition, "Athletic training improves both physical attributes and level of skill performance'.

In addition, the development of the two groups indicates the correct planning and organization of the chosen "The proper planning and selection of appropriate exercises (Al-Mukhtar , 1998, p. 96)exercises, and this is confirmed by enables the trainer to develop physical characteristics and at the same time works on the player's mastery of the basic skills".

The researcher attributes the development of the experimental group to the method of training used and contains the exercises used in training and scientifically chosen and applied by the research group, which worked to achieve the objective of the training subject, since the characteristic aspects of strength of the muscles of the hands and feet are not developed spontaneously, but through regular training and using the method of palladium training, as such training plays to develop strengths of the muscles of the hands and feet (Muhammad Hassan Allawi: 117,1998), and Muhammad Othman emphasizes that "the process of raising the level of strength requires working with weights and using body weight" (Othman, 1990, p. 113), As for the reason for the evolution of the challenge skill of the experimental group due to the development of the characteristic strengths of the muscles of the hands and feet as players cannot master the basic skills that characterize each activity in the event they lack the necessary physical characteristics and specific to sports activity, so we find a close link between the skill level and special requirements in every activity (Al-Besaty & Ahmed, 1998, p. 9)

3-2 Presenting and discussing the results of the post- tests between the experimental and control groups in the research variables

Table (3)
Shows the results of the post- tests between the experimental and control groups in the research variables

No.	Tests	Control group		Experimental group		Calculated T value
1	**The arms strengths / d**	71	1.5	76	1.4	5.86
2	**The legs strengths / d**	269.6	0.5	272.3	0.33	8.68
3	**Swordsmanship Skill**	3.47	0.65	7	0.67	10.59

(T) value at df (10) and the significance level (0.05) = 2.228

It was clear by the observation of Table (3) that the experimental group is better than the control group in the strength training exercises for the muscles of the working hands and legs as well as in developing the Swordsmanship skills by having significant differences in the posttests between the two groups and in favor of the experimental group in the research variables, and the researcher attributes the reason for that ,That palladium training method contained the exercises with different body weight and different weights, which directly affected the necessary muscles that the game needed and thus affected Swordsmanship skill.

It is known that every sport activity depends on specific muscle groups that differ from one game to another according to specialized sport and the fact that the fencing game is one of the games that characterized its players by the strength of the muscles of the arms and legs greatly. Therefore, these groups must be get attention to through the systematic repetition of exercises and the gradual increase in repetitions as the training method has proven its success in developing the strengths of the muscles of the hands and feet by returning physical exercises during the training unit and several times to developing this physical characteristic (Hussain & Al Anbaki, 1988). As for the relationship of strengths of the muscles of the hands and legs and the skill of Swordsmanship of fencing, the development of the former reflects its

importance is in the development of the second because it enables the player to perform this skill and thus reach the higher levels, as this characteristic is the basic pillar and foundation stone without which there is a defect in the training process (Hara, 1988, p. and also, the development of this characteristic contributes to raising the technical level which indicated by " that the development of strength gives a possibility Raising the technical level with the same degree " 126)

4- Conclusion:

It was clear that each of the exercises used in the method of palladium training contribute effectively to the development of hands and feet strengths of the muscles, which affected the Swordsmanship skill of fencing players, as it was found that the use of weights is better than the traditional methods of the control group in achieving the results of hands and legs muscles strengths and Swordsmanship skill of the fencing players. The researcher recommends the necessity of palladium training and the use of additional weights to develop the strengths of the muscles of the hands, feet and Swordsmanship skill for fencing players, and the need to pay attention to the strengths of the muscles of the hands and feet because of their great impact in improving and developing the Swordsmanship skill of fencing players.

Bibliography

Al-Awamri, N. A. (1983). *The effect of the exciting universe on the reaction.* Helwan University: Journal of Studies and Research.

Al-Besaty, A. A., & Ahmed. (1998). *Principles and Rules for Athletic Training.* cairo: Dar Al-Maaref.

Allawi, M. H. (1986). *Athletic Training Science.* Egypt: Dar Al-Maarif.

Al-Mukhtar , H. m. (1998). *Football Technical Director.* Cairo: Alkytab publishing center.

Al-Ramly, A. (1981). *International Law for Competition Fencing.* cairo: Dar Al-Fikr Al-Arabi.

Bastouisy, A. (1999). *The foundations and theories of sports training.* Cairo: Dar Al-Fikr Al-Arab.

Hara. (1988). *Fundamentals of Training: Translated by Abd Ali Nassif.* Mosul: Higher Education Press.

Hussain, Q. H., & Al Anbaki, M. J. (1988). *Physical fitness and ways to achieve it.* Baghdad: Higher Education Press.

Othman, M. (1990). *Encyclopedia of Athletics.* Kuwait: Dar Al-Qalam.

Muhammad Hassan Allawi and Muhammad Nasr al-Din Radwan: Kinetic Performance Tests, Dar al-Fikr al-Arabi, Cairo, 1982.

.