

# WATER TRAINING AND ITS EFFECT ON THE CONSTANT BALANCE AND THE ACHIEVEMENT OF SHOOTING PISTOL TO THE TEAM OF STUDENTS OF THE PHYSICAL OF PHYSICAL EDUCATION AND SPORTS SCIENCE FOR GIRLS

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## ABSTRACT:

*The study aimed to prepare water exercises and to identify the impact of these water exercises in the fixed balance and the achievement of air gun shooting for the team of students of the Faculty of Physical Education and Sports Science for girls, and the researchers adopted an experimental research methodology designed experimental and control groups on the players from the middle and advanced levels in the effectiveness of the air gun for the launch distance (10) meters for the team of the University of Baghdad / College of Physical Education and Sports Science / ministerial for the sports season (2017/2018) of (4) stages of study in the college, the number (52) players, (12) of them were chosen deliberately to represent the research sample by (23). After the identification of tests and the application of water exercises, the researchers concluded that the water exercises help to improve the stability of the equilibrium ability of the students who train them and outperform the female students. Water training helps to improve the achievement of pistol shooting in students who train them and outperform those without training in improving this achievement.*

## INTRODUCTION

The balance of both types is not limited to the information transmitted by the vestibular system of the cerebral cortex, which regulates the cerebral instructions for the control of the muscles responsible for the output. The natural sciences of this development.

" It is useful to divide strength training according to the methods of maximizing muscle tension, depending on the type of exercise used," says Adel and Ehab.

Ahmed Fouad states that "good performance depends mainly on information derived from our visual

sensations, which complements our internal sensations to help us balance and determine the moderate vertical position. Great in maintaining the balance of the body. " Through the above, the continuous pursuit of scientific research depends on what the training methods, methods and methods offer.

TalhaHossam El-Din and others point out that "the ability to regulate the tension or tension in any muscle of the body is the basic rule in the development of performance efficiency of any type of movement."

And one of the methods that seek to develop muscle strength is water training and through the observation of the researcher to train the team of students of the

University of Baghdad shooting noticed the need to use these training methods to be specialized exercises for the target sample to overcome the problem of study.

: Researchers to answer the following question

Do water exercises affect the constant balance and the achievement of pistol shooting for the team of students of the Faculty of Physical Education and Sports Science for girls.

The researchers aimed to:

- Preparation of water exercises for the team of students of the Physical of Physical Education and Sports Science for girls shooting.

- to identify the impact of water exercises in the constant balance and the achievement of archery pneumatic pistol among the team of students of the Physical of Physical Education and Sports Science for girls.

The researchers assumed the following:

- There are statistically significant differences between the results of the pre- and post-tests of the two groups in the fixed balance and the achievement of the pistol shooting.

- There are statistically significant differences between the results of the post tests of the two research groups in the fixed balance and the achievement of pistol shooting.

The limits of the study in the human field were: - Elected University of Baghdad / College of Physical Education and Sports Science / Ministerial for the sports season (2017/2018), and the time domain: - Duration from 20/3/2018 to 18/6/2018, and spatial field: - Swimming pool College of Physical Education and Sports Science / Jadiriya, and shooting hall in the Faculty of Physical Education and Sports Sciences for girls.

## **MATERIALS AND METHODS:**

### **Research Methodology:**

The researchers used the experimental approach, which is defined as "deliberate and exact change of the specific conditions of the phenomenon and observation of the outcomes of the change in the phenomenon under study.

The researchers adopted the experimental design of the experimental and control groups with a tight control before and after the tests.

### **Search community and sample:**

In order to achieve the objectives of the study and in accordance with the specificity of the problem studied and its frame of reference, the research community determined players from the middle and advanced levels in the effectiveness of the air gun for the launch distance (10) meters for the team of the University of Baghdad / College of Physical Education and Sports Science / ministerial for the sports season (2017/2018) of ( 4) Stages of study in the college, which number (52) players, (12) of them were chosen deliberately to represent the research sample by (23.08%) of the original community was randomly divided into two groups of equal number, and choose one randomly to be the experimental group and the other control. And (5) players for the elongation experiment procedures Yeh, as the reasons for the adoption of this community to study the different procedures of the fact that his players represent the observed society in which the problem of the study itself.

## **MEANS OF GATHERING INFORMATION, TOOLS AND DEVICES USED IN RESEARCH:**

The researcher used the following:

Arab and foreign sources.

Different forms for data collection test results.-

.Test of balance and achievement -

Electronic stopwatch type (ELO) Chinese-made .-

Portable calculator (Laptop) type (Lenovo) Chinese-made . -

- A wood stick is 12 inches long (30.48 cm) wide and one inch wide and one inch high.

.Adhesive tape width (5) cm -

.Pneumatic pistol -

.Pneumatic pistol releases -

.Shooting precision shooting plate -

## **FIELD RESEARCH PROCEDURES:**

Study variables and tests:

According to the problem of the study, the independent variable is represented by water training and the two dependent variables are both the fixed balance and the completion of the pistol shooting. The fixed balance test was adopted by standing on the instep and the international pistol shooting test.

**:Preparation of water exercises**

These included exercises that allow female players to develop the work of the parties involved in supporting the body when taking a shooting position, by applying them in combination with the method of holding and breathing in the pool to form water a kind of resistance on these extremes, which has an important factor in the continuation of the performance of these exercises that It is geared towards increasing the efficiency of muscular work, and was characterized by the adoption of the principle of exchange in the work of muscle groups to avoid the emergence of fatigue, and diversification to increase the thrill and continue to perform in the aquatic environment, which is not an achievement exercises in the distances of any type of swimming, but pass Yenat main objective is to invest water resistance.

- The number of repetitions has been determined to be inversely proportional to the time-calculated intensity in each exercise and the number has been determined.
- The number of groups was determined according to the duration of the exercise.
- Rest time between exercise, rest time between groups, and rest time between exercises were determined.
- The principles of gradient and ripple have been taken into account in increasing the intensity and volume of the training load within the training unit and between one unit and another and between the training week and another, according to the principles of known sports training.

**:EXPLORATION EXPERIENCE**

It was conducted with the assistance of the team assisting the survey sample of (5) female students

Identify the obstacles that will face the researchers when carrying out the survey in the application of the scale and tests, a systematic procedure for the sequence of procedures and the researcher did not face any obstacles.

**RESULT AND DISCUSSION:****:MAIN EXPERIENCE****Tribal tests:**

It was conducted, on the students of the main sample of (12) students in the shooting range in the Faculty of Physical Education and Sports Sciences for girls on 20/3/2018.

**Main Experience:**

- . Was implemented on the main sample of students (12) students
- The researcher only supervised the progress of the application of exercises in the training units and follow-up.
- The duration of the application of exercises amounted to (12) consecutive training weeks.
- .One week of training (small course) only seven days -
- The number of training units (training doses) in one training week (2) two training units on (Sunday, Wednesday) of the week.
- .The total number of training units totaled (24) training units -
- The time of the training unit (90) minutes, the researcher did not intervene experimentally in the details of the warm-up and closing sections, the exercises focused on both strategies under discussion at the time of the main section of the time of this training unit.

**:Dimensional tests**

The same conditions of the tribal tests were conducted on the students of the main sample of (12) students in the shooting hall in the Faculty of Physical Education and Sports Sciences for girls on 18/6/2018.

**:STATISTICAL MEANS**

SPSS version (V24), statistical package for social sciences

Percentage values, arithmetic mean, standard deviation, T-test for correlated samples and T-test for non-correlated samples were automatically calculated.

Table (1): Shows pre-test results between the two research groups

Significance	Degree (Sig)	(C) calculated	Control		Experimental		the test
			±ع	سن	±ع	سن	
Non moral	0.438	0.798	0.707	3.75	0.535	3.5	Balance
Non moral	0.858	0.182	5.63	460.63	7.906	461.25	Achievement

Degree of freedom (N + 1N) (2-2 = 12) Significance level (0.05) Unit of measure (sec)

Table (2): It shows the results of the pre- and post-vestibular vestibular efficiency tests of the two research groups

Significance	Degree (Sig)	(C) calculated	P	P	Post test		Pre-test		N	Variable and group	
					standar d deviat ion	Arithmet ic mean	standar d deviat ion	Arithmet ic mean			
moral	0.000	21	0.707	5.25	0.463	8.75	0.535	3.5	6	Balance	Exper iment al
moral	0.007	3.742	11.339	15	9.543	476.25	7.906	461.25	6	Achievem ent	
moral	0.000	9.979	0.744	2.625	0.744	6.38	0.707	3.75	6	Balance	Contr ol
moral	0.000	22.177	8.21	64.375	5.345	525	5.63	460.63	6	Achievem ent	

Degree of freedom (N - 1) per group Significance level (0.05) Units of measurement (sec)

Table (3): Shows the results of the post-test between the two research groups

Significance	Degree (Sig)	(C) calculated	Control			Experimental			the test
			stand ar deviat ion	Arithmeti c mean	N	standar d deviat ion	Arithmet ic mean	N	
moral	0.000	7.666	0.744	6.38	6	0.463	8.75	6	Balance
moral	0.000	12.606	5.345	525	6	9.543	476.25	6	Achievement

Degree of freedom (N + 1N) (2-2 = 12) Significance level (0.05) Unit of measure (sec)

The results of the pre- and post-test tests of the two research groups clearly evident in their students and that the superiority was in favor of the experimental group in the post-tests, and researchers attribute that these exercises increased the state of muscle feeling in the players shooters and this sense contributes significantly to help them to control the balance of the body during the process Correction in the technical skill performance shooting, because the balance is not responsible for the vestibular system, but the cerebral cortex is the issuance of appropriate instructions to the muscles based on the availability of information coming from the vestibular apparatus of the position of the body as shown This gives the meaning that the more efficient the vestibular system, the more control and tightening of the balance of the body, which

Ibrahim Salem and others stress that the continuous movement of muscles located in one side, whether on the right or left of the body, which bears more physical effort than the other side or in the case of sports training leads to a positive effect in the excitement and stimulation and training reduces excessive excitement in the nervous system Trainees are better able to increase performance in a relatively short period of time and "their movements are more accurate and perfect."

In the view of Arthur, "exercises must take into account the rules of balance of the player in both performance and stability and support the improvement of balance based on increasing the activation of the work of the muscular diffuse sensors, because the vestibular system does not develop training because it serves as a tomb that tells the brain of the body without issuing orders, This confirms that the vestibular system is informative and not as controlled as some people think. "

### CONCLUSIONS:

- The water exercises help to improve the ability of the constant balance of students who train them and outperform those students who train without them in improving this ability.
- The water exercises help to improve the achievement of pistol shooting for students who train them and

outperform those students who train without them in improving this achievement.

### ENDORSEMENT:

- It is necessary to pay attention to the principle of diversification and take into account individual differences and privacy when training pistol shooting.
- the need to match the training means with water exercises researched when training pistol shooting.
- It is necessary to ration the training load of the water training according to the capabilities of players throwers experimenting when training pistol shooting.

### REFERENCES:

- Ibrahim Salem Al-Kassar et al .; Encyclopedia of Physics of Track Competitions: Cairo, The Book Center for Publishing, 1998.
- Abul-Ela Ahmed Abdel-Fattah; Physical Training Physiological Foundations, I 1: Cairo, Dar Al-Fikr Al-Arabi, 1997.
- Ahmed Fouad Shazly; rules of equilibrium in the field of sports: Cairo, Dar Al-Maaref, 1995.
- Adel Abdel Basir and Ehab Adel; Muscle Strength Training, Integration between Theory and Training: Cairo, Egyptian Library, 2004.
- Talha Hussein Hussam al-Din and others; Scientific Encyclopedia of Training: Nasr City, Amoun Press, 1997.
- Mohammed Khalil Abbas et al.; Introduction to Research Methods in Education and Psychology: Amman, Dar Al-Masira, 2011.
- Mohammed Reda Ibrahim; Field application of theories and methods of sports training: Baghdad, Fadhli Office, 2008.
- Arthur T. Johnson, BIOMECHANICS AND EXERCISE PHYSIOLOGY: New York, Chic ester, Brisbane , Toronto , Singapore,2012.P:223.
- Chad Waterbury ;muscle Revolution : The high-Performance system for building a bigger , stronger, leaner body, 2005.p:66-68.