

## Effect of exercises Insanity And deep breathing in a way QIGONG On some complex offensive skills and recovery rates for handball players

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### Summary

The research aims to design a training program using...Exercises Insanity And deep breathing QIGONG To identify its effect on some physical variables (cyclic endurance-Bearing speed-Bearing strength-Transitional speed-Fit-Speed of motor response), and some complex offensive skill variables (Dribbling test, then passing and receiving, then deceiving with the body, then shooting-Testing passing and receiving, then deception by shooting from below, then deception by shooting from above, then dribbling, then shooting-Testing passing and receiving, then dribbling, then deceiving with the body, then shooting), and some respiratory capabilities (vital capacity- Vo2Max -Heart rate) in the research sample, and the researcher used the experimental approach using an experimental design with two pre- and post-measurements for two groups, one experimental and the other control, on a sample chosen intentionally from the players of the Tanta Sports Club for Handball, registered with the Egyptian Federation, consisting of (20) players who were divided into two equal groups. One of them was experimental and the other was control. A number of (10) players were selected from within the research community and from outside the basic sample and divided into two groups, a distinguished group and the other an undistinguished group at Ghazl al-Mahalla Sports Club to conduct the exploratory study and scientific transactions. Among the most important results is that training Insanity And deep breathing QIGONG It had a positive impact in Improvement of some physical variables, complex offensive skills, and respiratory capabilities are under investigation.

### introduction And a problem search :

Sports bodies compete in developing various sports activities and programmes. One of the most important ways of development is the use of innovative innovations, methods and innovative training methods that rely on codified scientific foundations and principles in order to address any obstacle facing the development and improvement of the level of sports performance. Therefore, developed countries in sports seek to overcome

the obstacles in the sports field in order to Raising its flag in international and global forums, which reflects its progress and prosperity. Perhaps one of the most important modern methods and techniques is that which relies on the combination of more than one physical, skill and physiological element at the same time, as this helps to develop the player in an integrated manner athletically in the practiced activity.

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Each sport differs from the other according to its nature, and the coach strives to raise the level of performance and achieve the desired goals. Therefore, the coach is required to continuously follow up on everything new in the field of training to raise the level of performance of his players.

He mentions Samia Mahran (2021), Filmorgan **Velmorgan G.(2012 AD)** That drills **Insanity** It is one of the modern and innovative training methods in training and has spread in international training arenas. It is characterized by high intensity and simple and high gradual intensity. It aims to improve physical and respiratory fitness, which is reflected in the skill aspect through the athlete's performance reaching the maximum of his ability in the form of intense groups for short periods and short rest. (6:191), (39:43)

It is considered training **Insanity** It is the most appropriate way for players to gain physical fitness, as it depends on the exchange between exerting effort and rest in succession, which helps connect the mind with the body, accompanied by appropriate and harmonious adaptation. (2:236)

Both Muhammad Al-Jabri and Hamdi Al-Nawasrah (2022 AD) confirm that using humanistic training **Insanity** Positive effect using exercises **QIGONG** In improving respiratory functions, the most important of which are vital capacity, maximum oxygen consumption, and resting heart rate. They represent great importance in developing the level of athletic performance, and qi gong

exercises aim to maintain the regulation of energy flow and regulate breathing rate, which enables the player to be able to concentrate and relax, and thus Improving the player's functional condition, which is reflected in improved performance. (17:262)

Imad al-Din Abbas (2005 AD) states that the development of the sports training process has achieved a breakthrough in the sports field in general, in group sports, and in particular in handball. This is clearly evident in the significant increase in performance levels as a result of the development of training methods and means of measurement. It has achieved a qualitative leap in some sports games. . (14:23)

Muhammad Al-Walely (2009 AD) adds that the handball player must be prepared physically, psychologically, and physiologically to face the requirements of the game because handball depends on high intensity in a short time, interspersed with relatively short rest periods. Therefore, the player must be prepared to advance the training situation and reach international levels in light of the progress of countries to achieve International championships and achievements. (18:225)

Mohamed Khaled Hamouda, Jalal Salem (2008AD), and Mohamed Kamel (2004AD) point out that the nature of play during matches requires players to use different complex skills, which represent a form of construction consisting of integrated skills that are performed successively and sequentially. Therefore, players must be equipped and prepared to face these

situations. Attacking with a mutual effect by raising the level of complex skill performance according to the circumstances of the match. This requires the player to master complex skills and perform them accurately. (21:77), (16:95)

Effat Rashad (2015 AD) and Muhammad Al-Walely (2009 AD) mention that a handball player's possession of complex offensive skills is considered a skill wealth that enables him to be an effective member of the team because the player's performance varies in the match according to the requirements and changing playing situations in performing the duties he is assigned to perform and for each player. Collective tactical planning for the team, where the team's condition and ability to succeed depend on the extent to which the team members possess the ability to perform complex skills. (12:240), (18:92)

In this regard, everyone confirms: **Peter Kavacs (2002 AD)**, **Mounir Girgis (2004 AD)**, **Yasser Dabour (2015 AD)**, The offensive skills combined with the ball are the main focus of the handball athlete and are the most sensitive because they take the time, effort, and thought of the coach throughout the training season, whether for the purpose of education or raising the level and mastery. Mastering these skills gives a great opportunity for the player to be distinguished and highly effective in handball competition. (35:31), (26:240), (29:92)

Everyone on Al-Baik, Imad Al-Din Abbas (2009 AD) agrees that the player cannot optimally perform the

complex skills of the activity being practiced unless he has the necessary physical variables required to implement the skill, and exercises that are similar in their motor composition to the movements performed during the match must be used, and this is considered tantamount to Direct preparation of the player and one of the means of developing the player's training condition, and repeating the performance in situations similar to competition plays a major role in developing special physical variables and motor skills. (13:219)

Essam El-Din Abdel-Khaleq (2003 AD) also confirms that developing the physical qualities specific to sporting activity contributes significantly to the player's reaching the best levels of complex offensive skill performances in the specialized activity. (11:63)

From the previous presentation, the researcher sees that training exercises *InsanityIt* is one of the modern training methods and can be employed for any sporting activity in general, and in handball in particular. When applied in handball, the basic aspects of these exercises must be employed within the framework of the specialty of the nature of performance in handball, and it also plays an effective role in improving the physical and physiological level of the handball player. It helps him perform the complex offensive skill duties effectively during the match, knowing that the handball player exerts a high-intensity effort during short periods that do not exceed (3 seconds), which affects the player's training status, and

there is no clear strategy for training the handball player to breathe in a way that helps him recover and return. To his natural state with clarity of mind and focus on the match, thus delaying the appearance of fatigue during performance, and by reviewing scientific references such as

Yasser Dabour (2001 AD) (29), Kamal Al-Din Abdel Rahman Darwish, Qadri Sayyed Morsi, Imad Al-Din Abbas Abu Zaid (2002 AD) (15), Essam El-Din Abdel Khaleq (2003 AD) (11), Mounir Girgis Ibrahim (2004 AD) (26), Imad El-Din Abbas Abu Zaid (2005 AD) (14), Muhammad Khaled Hamouda, Jalal Kamal Salem (2008 AD) (21), Ali Fahmy Al-Beik And others (2009AD) (13), Muhammad Tawfiq Al-Walely (2009AD) (18) And reference studies such as the study of Sayed Abu Zaid (2021AD) (7), the study of Muhammad Mahmoud Kazem (2015AD) (25), the study of Omnia Mansour (2015AD) (1), the study of Muhammad Abdel Aziz (2017AD) (23), and the study of Tai Yun. Kima, Jung Hoon Kim **Tea Yoon Kima, Jung Hyun Kim (2020 AD) (38), Shaima Muhammad Abu Zaid Abdel Fattah (2021 AD) (9)** All of which confirmed that qi gong exercises are of great importance in improving the speed of recovery, restoring the physical condition of athletes, the athlete's endurance to physical and skill effort, and the ability to continue performing effectively without feeling tired. It is clear that one of the most important deep breathing exercises is deep breathing exercises. **QIGONG** It aims to recover physically and mentally by deep

breathing and performing complex offensive skills with high energy and efficiency without feeling stressed and with focus and clarity of mind, which helps the player to excel in performance and focus on achieving the desired goals.

The handball player bears a physical, mental, and skill burden while performing complex offensive skills and continuing the performance over a period of (60 seconds), which consequently affects the efficiency of the player's performance and his continuation of the same effectiveness throughout the match period. Therefore, it was necessary to research training directions that are appropriate to the nature of performance in handball. It is a competitive game that requires the player to have a high degree of physical fitness and skill, with the ability to think properly during periods and stages of the match, and the ability to endure and continue while performing complex skill duties imposed by the playing situations within the competition in a time not exceeding (3 seconds). The distinguished player is the one who can Performing skills with agility and agility, with speed of completion and effectiveness that clearly appears in complex offensive skills.

By watching handball matches and conducting a survey on handball players under 18 years of age, the research sample-Attachment (1)-The researcher found that the player was unable to continue until the end of the match time (60 seconds) with the same effectiveness and a low rate of performance in the second half

compared to the first half, and this affects the form of performance in general and the performance of complex offensive skills in a clear and evident way during the match, knowing that in the sport of handball the player makes an effort Aerobic or aerobic, he continues to perform at high intensities of the player's maximum ability during periods of time that do not exceed a few seconds. Throughout the match there is a disparity between work and rest at high intensities and short rest, and the coaches focus on the individual aspect of offensive skills and neglect the complex offensive skills despite the fact that mastering the skills Combined attacking is the cornerstone of building and preparing a distinguished player who can confront the opponent with strength and motivation to achieve goals and achieve victory, as the nature of skill performance within competitions takes place through contact to a large extent according to specific rules. The two teams exchange different attacking positions, so the offensive skills must be shed light on. Compound: As the unique player in handball is the one who can fulfill the duties assigned to him according to what is imposed by the changing and fast-paced playing situations, the success of the team depends on the extent to which its members possess complex offensive skill performances. Hence, we must prepare the player well during the three-stage preparation period (general preparation-Special preparation-Preparation before matches. Training programs must contain aerobic endurance to maintain

good performance throughout the match without feeling tired, speed recovery, and increase motivation. This is achieved through training. QIGONG Training is done before entering the special preparation period, and the researcher used humanistic training. Due to the positive results achieved in reference studies and its effectiveness in raising general and specific physical fitness and complex offensive skills, taking into account the use of training with the nature of performance in handball, humanistic training plays an important and positive role in building a physical, skill and functional base for the player, which helps to carry out training duties effectively during Halftime of the match, so the researcher resorted to using human training in the deep breathing training method because it suits the nature of performance in handball and its effective role in improving the breathing rate and heart rate to the maximum correctly at high intensities ranging between (70-90%) of the player's maximum intensity and for long training periods. Relatively, interspersed with short rest periods that may last a few seconds. Hence, the researcher designed a humane training program using qi gong exercises and their effect on some complex offensive skills and recovery rates for handball players.

#### **research aims :**

The research aims to design a training program using...ExercisesAnd deep breathingQIGONGto identify :

- 1- The effect of the proposed training program on some physical

variables (cyclic endurance-Bearing speed-Bearing strength-Transitional speed-Fit-Movement speed of the research sample.

2- The effect of the proposed training program on some complex offensive skill variables (Dribbling test, then passing and receiving, then deceiving with the body, then shooting-Testing passing and receiving, then deception by shooting from below, then deception by shooting from above, then dribbling, then shooting-Testing passing and receiving, then dribbling, then deceiving with the body, then shooting) in the research sample.

3- The effect of the proposed training program on some respiratory capabilities (vital capacity).- Vo2Max - Heart rate) in the research sample.

#### **Research hypotheses :**

1- There are statistically significant differences between the pre- and post-measurements of the experimental group in the level of some (physical variables - complex offensive skill variables - respiratory abilities) under research in favor of the post-measurement.

2- There are statistically significant differences between the pre- and post-measurements of the control group in the level of some (physical variables - complex offensive skill variables - respiratory abilities) under research in favor of the post-measurement.

3- There are statistically significant differences between the post-measurements of the experimental and control groups in the level of some (physical variables - complex offensive skill variables - respiratory abilities) under investigation in favor of the experimental group.

#### **Search terms:**

#### **Humanity trainingInsanity:**

It is one of the modern training methods that relies on high-intensity training with very short rest periods and works to develop speed, anaerobic endurance, muscular ability, and speed endurance in a very short time. (41)

#### **Qi gong trainingQIGONG:**

It is one of the exercises that depends on mental clarity, deep breathing, and combining movement with stillness. It is concerned with the health of the mind and body, and aims to recover and gain energy through exercises.

Pneumatic. (40:41)

#### **Search procedures :**

#### **Research Methodology :**

The researcher used the experimental method using an experimental design with pre- and post-measurements for two groups, one experimental and the other control, as it suits the nature of the research.

#### **Research population and sample:**

The research population consists of handball players under 18 years of age, born in 2004, for the sports season (2021/2022) in the central Delta region, consisting of (96) players registered with the Egyptian Handball Federation. The research sample was chosen intentionally from players of the Tanta Sports Club for Handball who are registered with the Federation. The Egyptian team, consisting of (20) players, was divided into two equal groups, one experimental and the other control. A number of (10) players were also selected from within the research community and from outside the basic sample and divided into two distinct groups, as they achieve better results in conducting the physical and skill tests under study. The other is not assigned to Ghazl El Mahalla Sports Club to conduct exploratory studies and scientific transactions.

**Table (1)**  
**Research population and sample**

Exploratory sample		Basic sample		research community	
%	the number	%	the number	%	the number
10.41%	10	20.83%	20	100%	96

Homogeneity of the two research groups (experimental).-Controller):

Homogeneity was conducted between the two research groups (experimental-Control) for the basic variables (age-the weight-height-

Training age), the physical variables, the complex offensive skills, and the respiratory capabilities under investigation, and Tables (2), (3), and (4) show this.

**Schedule (2)**

**Statistical significanceFor moderationThe sample as a whole in the variables Research is underway to demonstrate the normality of the probability distribution of data using the Klumgorov-Simmernov test.Kolmogorov-Smirnov n=20**

M	Variables	lonliness Measurement	Average Arithmetic	Mediator	standard deviation	skewness	a test Kolmogorov-Smirnov	
1-	Basic variables	Age	year	17.68	17.90	0.45	-0.44	0.08
2-		the weight	kg	71.55	71.00	1.75	0.53	0.10
3-		height	poison	171.05	171.00	1.23	0.08	0.20
4-		Training age	year	10.18	10.35	0.55	-0.86	0.19
5-	VariablesPhysical	22m running test in a curve	(w)	4.51	4.50	0.04	-0.77	0.11
6-		Front and back running test for a distance of 252 metres	(w)	84.59	84.60	0.02	0.11	0.16
7-		Bend arm flexion test	(degree)	29.39	29.39	0.04	0.10	0.17
8-		Nelson motor response test	(time)	2.13	2.13	0.00	0.61	0.08
9-		800g medicine ball throw test of stability	(meter)	11.49	11.50	0.05	0.20	0.12
10-		Vertical jump test from stability	(poison)	36.47	36.46	0.05	1.09	0.20
11-		600 meter running test	(s)	3.48	3.49	0.03	-0.56	0.20
12-	Complex offensive skill	Dribbling test, then passing and receiving, then deceiving with the body, then shooting	time	8.70	8.70	0.02	0.03	0.13

### Follow Schedule (2)

Statistical significance For moderation The sample as a whole in the variables Research is underway to demonstrate the normality of the probability distribution of data using the Klumgorov-Simmernov test. Kolmogorov-Smirnov n=20

M	Variables	lonliness Measurement	Average Arithmetic	Mediator	standard deviation	skewness	a test Kolmogorov-Smirnov	
13-	Testing passing and receiving, then deception by shooting from below, then deception by shooting from above, then dribbling, then shooting	time	8.84	8.84	0.01	-0.06	0.20	
14-	Testing passing and receiving, then dribbling, then deceiving with the body, then shooting	time	8.15	8.16	0.00	0.31	0.19	
15-	Respiratory capabilities	Vital capacity	(Liter)	4.37	4.37	0.03	-0.72	0.15
16-		Maximum oxygen consumption VO <sub>2</sub> max	(degree)	72.92	72.91	0.03	2.04	0.20
17-		Resting heart rate	(n/s)	65.22	65.20	0.17	2.53	0.20

Shows a table (2) The arithmetic mean, median, standard deviation, skewness coefficient, and Klumgorov-Simmernov test Kolmogorov-Smirnov to determine whether the data is normally distributed or not in the

variables under study. It becomes clear that the data follows a normal distribution as Sig > 0.05, and the values of the skewness coefficient ranged between ( $\pm 3$ ).

### Schedule (3)

Statistical significance For moderation a sample Experimental group In variables Research is underway to demonstrate the normality of the probability distribution of data using the Klumgorov-Simmernov test. Kolmogorov-Smirnov n=10

M	Variables	lonliness Measurement	Average Arithmetic	Mediator	standard deviation	skewness	a test Kolmogorov-Smirnov	
1-	Basic	Age	year	17.80	17.90	0.38	-1.39	0.20
2-		the weight	kg	71.74	71.50	2.07	0.61	0.20
3-		height	poison	170.80	171.00	1.32	0.09	0.20
4-		Training age	year	10.20	10.25	0.49	-0.88	0.11
5-	Variables Physical	22m running test in a curve	(w)	4.52	4.52	0.02	0.00	0.10
6-		Front and back running test for a distance of 252 metres	(w)	84.60	84.60	0.03	-0.23	0.16
7-		Bend arm flexion test	(degree)	29.38	29.38	0.02	-0.11	0.17



### Follow Schedule (3)

**Statistical significance For moderation a sample Experimental group In variables  
Research is underway to demonstrate the normality of the probability distribution of  
data using the Klumgorov-Simmernov test. Kolmogorov-Smirnov n=10**

M		Variables	lonliness Measurement	Average Arithmetic	Mediator	standard deviation	skewness	a test Kolmogorov-Smirnov
8-		Nelson motor response test	(time)	2.13	2.14	0.00	0.11	0.06
9-		800g medicine ball throw test of stability	(meter)	11.49	11.50	0.06	0.28	0.20
10-		Vertical jump test from stability	(poison)	36.45	36.46	0.04	-0.19	0.20
11-		600 meter running test	(s)	3.50	3.50	0.03	0.22	0.16
12-	Complex offensive skill variables	Dribbling test, then passing and receiving, then deceiving with the body, then shooting	time	8.70	8.70	0.01	0.64	0.10
13-		Testing passing and receiving, then deception by shooting from below, then deception by shooting from above, then dribbling, then shooting	time	8.84	8.84	0.02	-0.02	0.20
14-		Testing passing and receiving, then dribbling, then deceiving with the body, then shooting	time	8.16	8.16	0.00	0.00	0.20
15-		Vital capacity	(Liter)	4.38	4.38	0.02	-0.68	0.15
16-	Respiratory	Maximum oxygen consumption VO2 max	(degree)	72.91	72.90	0.03	3.03	0.13
17-		Resting heart rate	(n/s)	65.23	65.11	0.25	1.76	0.08

The table shows (3) The arithmetic mean, median, standard deviation, skewness coefficient, and Klumgorov-Simmernov test Kolmogorov-Smirnov to determine whether the data is normally

distributed or not in the variables under study. It becomes clear that the data follows a normal distribution as Sig > 0.05, and the values of the skewness coefficient ranged between ( $\pm 3$ ).

**Schedule (4)**  
**Statistical significance For moderation a sample Control group In variables**  
**Research is underway to demonstrate the normality of the probability distribution of**  
**data using the Klumgorov-Simmernov test. Kolmogorov-Smirnov n=10**

M		Variables	lonliness Measurement	Average Arithmetic	Mediator	standard deviation	skewness	a test Kolmogorov-Smirnov
1-	Basic	Age	year	17.55	17.46	0.49	0.25	0.07
2-		the weight	kg	71.36	71.00	1.43	-0.09	0.19
3-		height	poison	171.30	171.00	1.16	0.34	0.20
4-		Training age	year	10.16	10.40	0.63	-0.90	0.08
5-	Physical variables	22m running test in a curve	(w)	4.51	4.50	0.05	-0.24	0.20
6-		Front and back running test for a distance of 252 metres	(w)	84.59	84.59	0.02	0.21	0.20
7-		Bend arm flexion test	(degree)	29.40	29.40	0.05	-0.60	0.11
8-		Nelson motor response test	(time)	2.13	2.13	0.00	-0.17	0.09
9-		800g medicine ball throw test of stability	(meter)	11.50	11.50	0.05	0.50	0.20
10-		Vertical jump test from stability	(poison)	36.48	36.45	0.06	0.89	0.20
11-		600 meter running test	(s)	3.47	3.47	0.03	-0.99	0.11
12-	Complex offensive skill variables	Dribbling test, then passing and receiving, then deceiving with the body, then shooting	time	8.70	8.70	0.02	0.00	0.16
13-		Testing passing and receiving, then deception by shooting from below, then deception by shooting from above, then dribbling, then shooting	time	8.84	8.84	0.00	-0.36	0.11
14-		Testing passing and receiving, then dribbling, then deceiving with the body, then shooting	time	8.15	8.15	0.00	0.82	0.20
15-	Respiratory	Vital capacity	(Liter)	4.35	4.35	0.03	0.00	0.10
16-		Maximum oxygen consumption VO2 max	(degree)	72.92	72.92	0.02	0.16	0.08
17-		Resting heart rate	(n/s)	65.20	65.20	0.01	0.60	0.20

The table shows (4) The arithmetic mean, median, standard deviation, skewness coefficient, and Kolmogorov-Smirnov test to determine whether the data is normally distributed or not in the variables under study. It becomes clear that the data follows a normal distribution as Sig > 0.05, and the values of the skewness coefficient ranged between ( $\pm 3$ ).

#### **Equivalence of the two research groups (experimental)-Controller:**

Equivalence was conducted between the two research groups (experimental-Control) for the basic variables (age-the weight-height-Training age), the physical variables, the complex offensive skills, and the respiratory capabilities under investigation, and Tables (5), (6), (7), and (8) illustrate this.

#### **Schedule (5)**

**It shows the t-statistics and the significance of the differences between the average scores Sample of the experimental and control groups in Tribal measurements of variable the basic under consideration n=10**

Variables	the group	Average	standard deviation	the difference Between averages	Levene`s Test	value (v)
Age	Experimental	17.80	0.38	0.249	0.069	1.268
	Female officer	17.55	0.49			
the weight	Experimental	71.74	2.07	0.379	0.285	0.476
	Female officer	71.36	1.43			
height	Experimental	170.80	1.32	-0.500	0.787	-0.901
	Female officer	171.30	1.16			
Training age	Experimental	10.20	0.49	0.041	0.352	0.163
	Female officer	10.16	0.63			

\*The tabular t-value is at a significance level of 0.05 = 2.10

The table shows (5) The value of the larger variance over the smaller variance in all variables is less than the tabular (F) value At a significance level of 0.05, It indicates the homogeneity of the two research groups (experimental and control), and it is also clear that there are no

statistically significant differences between the pre-measurements of the two groups (experimental and control) in the basic variables under research, which gives a direct indication of the equality of the two groups in those variables.

**Schedule (6)**

**It shows the t-statistics and the significance of the differences between the average scores Sample of the experimental and control groups in Pre-measurements of physical variables under consideration n=10**

Variables	the group	Average	standard deviation	the difference Between	Levene`s Test	value (v)
22m running test in a curve	Experimental	4.52	0.02	0.015	0.237	0.906
	Female officer	4.51	0.05			
Front and back running test for a distance of 252	Experimental	84.60	0.03	0.007	0.376	0.703
	Female officer	84.59	0.02			
Bend arm flexion test	Experimental	29.38	0.02	-0.023	0.202	-1.407
	Female officer	29.40	0.05			
Nelson motor response test	Experimental	2.13	0.00	0.000	0.060	0.738
	Female officer	2.13	0.00			
800g medicine ball throw test of stability	Experimental	11.49	0.06	-0.014	0.236	-0.564
	Female officer	11.50	0.05			
Vertical jump test from stability	Experimental	36.45	0.04	-0.028	0.062	-1.210
	Female officer	36.48	0.06			
600 meter running test	Experimental	3.50	0.03	0.032	0.449	2.090
	Female officer	3.47	0.03			

\*The tabular t-value is at a significance level of  $0.05 = 2.10$

The table shows (6) The value of the larger variance over the smaller variance in all variables is less than the tabular (F) value At a significance level of 0.05, It indicates the homogeneity of the two research groups (experimental and control), and it is also clear that there are no

statistically significant differences between the pre-measurements of the two groups (experimental and control) in Physical variables Under investigation, which gives a direct indication of the equality of the two groups in these variables.

### Schedule (7)

It shows the t-statistics and the significance of the differences between the average scores Sample of the experimental and control groups in Tribal measurements of mCombined offensive skill changes n=10

Variables	the group	Average	standard deviation	the difference Between	Levene`s Test	value (v)
Dribbling test, then passing and receiving, then deceiving with the body, then shooting	Experimental	8.70	0.01	0.000	0.475	0.061
	Female officer	8.70	0.02			
Testing passing and receiving, then deception by shooting from below, then deception by shooting from above, then dribbling, then shooting	Experimental	8.84	0.02	-0.000	0.217	-
	Female officer	8.84	0.00			
Testing passing and receiving, then dribbling, then deceiving with the body, then shooting	Experimental	8.16	0.00	0.000	0.350	0.447
	Female officer	8.15	0.00			

\*The tabular t-value is at a significance level of  $0.05 = 2.10$

The table shows (7) The value of the larger variance over the smaller variance in all variables is less than the tabular (F) value At a significance level of 0.05, It indicates the homogeneity of the two research groups (Experimental and control), as it is clear that there are no statistically

significant differences between the pre-measurements of the two groups (experimental and control) in the complex offensive skill variables. Which gives a direct indication of the equality of the two groups in these variables.

### Schedule (8)

It shows the t-statistics and the significance of the differences between the average scores Sample of the experimental and control groups in Premeasurements of respiratory capacity under consideration n=10

Variables	the group	Average	standard deviation	the difference Between averages	Levene`s Test	value (v)
Vital capacity	Experimental	4.38	0.02	0.030	0.394	2.096
	Female officer	4.35	0.03			
Maximum oxygen consumption VO <sub>2</sub> max	Experimental	72.91	0.03	-0.013	0.516	-1.145
	Female officer	72.92	0.02			
Resting heart rate	Experimental	65.23	0.25	0.029	0.001	0.370
	Female officer	65.20	0.01			

\*The tabular t-value is at a significance level of  $0.05 = 2.10$

The table shows (8) The value of the larger variance over the smaller variance in all variables is less than the tabular (F) value At a significance level of 0.05, It indicates the homogeneity of the two research groups (experimental and control), and it is also clear that there are no statistically significant differences between the pre-measurements of the two groups (experimental and control) in Respiratory capabilities Under investigation, which gives a direct indication of the equality of the two groups in these variables.

#### **Data collection tools and methods:**

##### **First: Tools used:**

- Medical scale-Measuring tape-hourturning off -Seating-Medicine balls-Handball court-weights-Divided boxes-Cones-Dry spirometer-Heart rate measuring device.

##### **Second: Data collection methods:**

###### **1-Personal interviews:**

The researcher explained the idea of the research and its importance to the handball specialist professionally and practically, and approval was obtained from the Tanta Sports Club to implement the research, as well as an agreement with the coach of the team born in (2004 AD) for the sports season (2021/2022 AD) on how the proposed training program would proceed according to the research sample.

###### **2-The forms used-Attachment (2):**

- Designing a form for registering data for the research sample.
- Designing a form to record the results of measurements of the physical variables under study.

- Designing a form to record the results of measurements of the complex offensive skills under study.

- Designing a form to record the results of respiratory capacity measurements.

#### **3-The tests used in the research under study-Attachment (3):**

##### **1- Physical tests:**

Through the researcher's review of reference studies and scientific references, the most appropriate physical tests under study were determined, which are:

- A 22 m sprint test in a curve to measure the translational speed (s).

- Front and back running test for a distance of 252 meters to measure speed endurance (s).

- Arm bending test from prone position to measure force endurance (degree).

- Nelson motor response test to measure motor response speed (time).

- Test of throwing an 800 g medicine ball from stability to measure the muscular ability of the arms (meters).

- Vertical jump test from a standstill to measure the muscular capacity of the legs (cm).

- 600-meter running test to measure cyclic respiratory endurance (S).

##### **2- Combined offensive skill tests:**

- Dribbling test, then passing and receiving, then deceiving with the body, then shooting (time).

- Test of passing and receiving, then deception by shooting from

below, then deception by shooting from above, then dribbling, then shooting (time).

– Test of passing and receiving, then dribbling, then deceiving with the body, then shooting (time).

3- **Respiratory capacity tests:** Harvard test to measure maximum oxygen consumption  $Vo_{2max}$ .

#### Survey study:

The exploratory study was conducted on a sample of (10) players in the Ghazl El Mahalla Club from the same research community and from outside the basic sample and registered with the Egyptian Handball Federation for the sports season (2021-2022 AD), on Saturday, 6/11/2022 AD, until Wednesday, 15/2022 AD. 6/2022 AD, with the aim of conducting scientific

procedures for the tests used and verifying the following points:

– Suitability of the proposed program to the research sample.

– Identifying difficulties and obstacles that you encounter the application and try to solve it.

– Suitability of the training unit time for the research sample.

#### -Scientific parameters for the tests under investigation:

##### First: Validity coefficient of tests:

To verify the validity of the physical, skill, and functional tests, the researcher used discriminant validity in two groups, one of which was distinguished in the level of technical performance and regularity in training, and the other was not distinguished and consisted of (10) players, and this is clear from Table (9).

#### Schedule (9)

Shows the results of the Mann-Whitney test Mann-Whitney Test, Z value between scores The upper and lower quartiles of the variables under investigation n=5

M	Variables	lonliness Measurement	Upper quartiles		Lower quartiles		Mann Whitney value Z	Sig (0.05) P.Value
			Average rank	Total ranks	Average rank	Total ranks		
1-	22m running test in a curve	(w)	3.00	15.00	8.00	40.00	-2.78	0.00
2-	Front and back running test for a distance of 252 metres	(w)	3.00	15.00	8.00	40.00	-2.62	0.00
3-	Bend arm flexion test	(degree)	8.00	40.00	3.00	15.00	-2.62	0.00
4-	Nelson motor response test	(time)	3.00	15.00	8.00	40.00	-2.67	0.00
5-	800g medicine ball throw test of stability	(meter)	8.00	40.00	3.00	15.00	-2.62	0.00
6-	Vertical jump test from stability	(poison)	8.00	40.00	3.00	15.00	-2.62	0.00

**Follow Schedule (9)**  
**Shows the results of the Mann-Whitney test Mann-Whitney Test, Z value**  
**between scores The upper and lower quartiles of the variables under**  
**investigation n=5**

M	Variables	lonliness Measurement	Upper quartiles		Lower quartiles		Mann Whitney value Z	Sig (0.05) P.Value
			Average rank	Total ranks	Average rank	Total ranks		
7-	600 meter running test	(s)	3.00	15.00	8.00	40.00	-2.66	0.00
8-	variables Dribbling test, then passing and receiving, then deceiving with the body, then shooting	time	3.00	15.00	8.00	40.00	-2.66	0.00
9-	skill Testing passing and receiving, then deception by shooting from below, then deception by shooting from above, then dribbling, then shooting	time	3.00	15.00	8.00	40.00	-2.66	0.00
10-	offensive Testing passing and receiving, then dribbling, then deceiving with the body, then shooting	time	3.00	15.00	8.00	40.00	-2.66	0.00
11-	Complex Vital capacity	(Liter)	8.00	40.00	3.00	15.00	-2.73	0.00
12-	Respiratory The maximum consumption limitaAs a prisonerVO2 max	(degree)	8.00	40.00	3.00	15.00	-2.65	0.00
13-	Resting heart rate	(n/s)	3.00	15.00	8.00	40.00	-2.65	0.00

It is clear from table (9) There are statistically significant differences at a significance level of 0.05 between the two means Upper quartiles and lower quartiles In the variables under study, where P.Value Sig >0.05.

**Second: Reliability coefficient of tests:**

The stability of the tests used was found using the application and re-application method on a sample of (10) players, and this is evident from Table (10).



**Schedule (10)**  
**Shows coefficient statistics Link Between the first and second applications of the variables under study n=20**

M	Variables	lonliness Measurement	First application		The second application		(R)	Sig (0.05) P.Value	
			s	A	s	A			
1-	Physical variables	22m running test in a curve	(w)	3.93	0.06	4.02	0.21	0.73	0.00
2-		Front and back running test for a distance of 252 metres	(w)	77.26	3.73	78.31	4.09	0.95	0.00
3-		Bend arm flexion test	(degree)	37.20	3.07	37.70	2.92	0.98	0.00
4-		Nelson motor response test	(time)	2.07	0.05	2.33	0.28	0.80	0.00
5-		800g medicine ball throw test of stability	(meter)	13.40	0.97	13.57	0.97	0.97	0.00
6-		Vertical jump test from stability	(poison)	37.96	1.46	38.21	1.63	0.98	0.00
7-		600 meter running test	(s)	2.91	0.53	3.00	0.52	0.96	0.00
8-	Complex offensive skill variables	Dribbling test, then passing and receiving, then deceiving with the body, then shooting	time	7.22	0.64	7.29	0.59	0.98	0.00
9-		Testing passing and receiving, then deception by shooting from below, then deception by shooting from above, then dribbling, then shooting	time	7.54	0.51	7.88	0.67	0.76	0.00
10-		Testing passing and receiving, then dribbling, then deceiving with the body, then shooting	time	6.82	0.23	7.05	0.50	0.72	0.00
11-	Respiratory capabilities	Vital capacity	(Liter)	5.10	0.52	5.26	0.57	0.95	0.00
12-		Maximum oxygen consumption VO2 max	(degree )	86.41	6.67	88.31	8.17	0.92	0.00
13-		Resting heart rate	(n/s)	62.82	1.64	63.67	1.80	0.74	0.00

The tabulated R value is  $0.05 = 0.553$

It is clear from table (10) There is a high correlation with statistical significance between the first application and the second application at a significance level of 0.05.  $Sig > 0.05$ , which indicates the reliability of the tests.

#### **Proposed training program:**

Through a reference survey of scientific references and related studies within the researcher's knowledge, a training program was designed using exercises *Insanity* and deep breathing to improve some physical and skill variables and recovery rates for handball players-Attachment (4).

#### **Objective of the training program:**

The training program aims to develop some physical variables, complex offensive skills, and recovery rates for handball players by designing a training program using exercises *Insanity* and deep breathing exercises *QIGONG* to identify :

- The effect of the proposed training program on some of the physical variables under investigation for handball players.
- The effect of the proposed training program on some complex offensive skills under investigation for handball players.
- The effect of the proposed training program on some of the hospitalization rates under investigation for handball players.

#### **Fundamentals of developing the training program:**

- Achieving the goal for which the training program was developed.
- The training program should be flexible.
- Gradual training loads and diversity.
- Ensure that sample members do not suffer from breathing or joint problems.
- Make sure that the training is performed correctly to avoid injuries.

#### **Scientific foundations that must be taken into account for training *Insanity*:**

- Taking into account the player's individual response during the implementation of the training program.
- Taking into account the specified time of (3 seconds) for each exercise, accompanied by (1 minute) of rest between sets.
- Gradual degree of pregnancy.
- Taking into account the principle of adaptation to training requirements.
- Consider continuity in training without interruption.
- The intensity should range between 70%-90% of the player's maximum ability.

#### **Time distribution of the proposed training program:**

After reviewing the scientific references and previous studies related to the research topic, the researcher developed a time plan for the program, represented as follows:

**Table (11)**  
**Time distribution of the proposed training program**

<b>Content of the training program</b>	<b>Target number</b>	<b>The intensity used</b>	<b>degree of pregnancy</b>
The total time of the program	8 weeks	-	-
Distribution of weeks of the training program	The first and second week	Ranging between 70-75%	Simple load
	The third and fourth week	75-80%	Medium intensity load
	Week five and six	80-85%	High intensity load
	Seventh and eighth weeks	85-90%	Load less than maximum
		From the player's maximum ability	
Number of training units	3 weekly units, and the total number of units is 24 training units	According to the exercises used and the training status of the player, taking into account the progression of proportions with the duration of the exercise as training adaptation occurs.	
Training unit time	90 BC	-	-
Total program time in minutes	2160 BC	-	-

**Table (12)**  
**Distribution of the total time over the different preparation stages**

The preparation stage during the training program period																								
Weeks Training the week	General preparation stage						Special physical preparation stage						Preparation stage before matches											
	the first	the second	the third	the fourth	Fifth	VI	Seventh	VIII																
%	50%	50%	25%	25%	25%	25%	50%	50%																
Q	270 BC	270 BC	270 BC	270 BC	270 BC	270 BC	270 BC	270 BC																
Daily unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Time of loneliness	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Warm up	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Physical preparation (40 minutes)	%	60	60	60	65	65	65	70	70	70	70	70	70	75	75	75	75	75	45	40	40	35	35	35
	Q	42	42	42	45	45	45	49	49	49	49	49	49	52	52	52	52	52	31	28	28	25	25	25
Composite offensive skill numbers	%	40	40	40	35	35	35	30	30	30	30	30	30	25	25	25	25	25	55	60	60	65	65	65
	Q	28	28	28	25	25	25	21	21	21	21	21	21	17	17	17	17	17	38	42	42	45	45	45
Conclusion	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

**Contents of the training unit:**

**Table (13)**  
**Contents of the training unit**

Parts of the training unit	Part time	Training time					Content	Its purpose	
		the performance	Comforts	K	Mg	Rest between sets			
Warm up	10 BC	30-60s	15-30s	2	1	10s	Aerobic training using drills QIGONG stretches for all muscles of the body	Preparing all body muscles and aerobic conditioning during the training unit	
The main part	Physical preparation	40 BC	30s-1s	15-30s	2	2	15s	Implementing the training program using humanistic exercises and deep breathing to prepare the joint muscles	Improving and developing the physical variables under research
	Skilled preparation	30 BC	45s-80s	15s-30s	2	2	15s	Apply the section on complex offensive skills	Improving complex offensive skill performances
The concluding part	10 BC	30-45s	15s	2	1	10s	Qi Gong exercises with light stretches	Preparing the body's muscles and returning the player to recovery	

**Table (14)****Formation of training load degrees during the weeks of the training program**

Program-weeks	1	2	3	4	5	6	7	8
Degrees of pregnancy								
Maximum load								
High load								
Average load								
Simple load								

**Duration of implementation of the proposed training program:**

The training program was implemented using exercises *Insanity* Using drills QIGONG For (8) weeks, (3) units per week.

**Basic study:****Pre-measurement:**

Scientific tests of the research

variables were conducted from Saturday, 6/18/2022 AD, to Wednesday, 6/22/2022 AD.

**Program application:**

The training program was applied to the experimental group from Saturday, 6/25/2022 AD to

Wednesday, 8/31/2022 AD.

**Dimensional measurement:**

The post-measurement was conducted in the same manner as the pre-measurement in the period from Saturday, September 3, 2022 AD to Wednesday, September 7, 2022 AD.

**Statistical treatments:**

In order to achieve the objectives of the study, the researcher used the statistical program (Spss):

- Arithmetic mean .
- standard deviation .
- Mediator .

- Torsion coefficient.
- Klumgorov-Simmernov test
- Kolmogorov-Smirnov
- Correlation coefficient (Pearson).
- Mann-Whitney test
- Mann-Whitney Test
- Levene's test
- Levene`s Test.
- Graphs

**Presentation and discussion of results:**

**First: Display the results:**

**Schedule (15)**

It shows (t) statistics and the significance of the differences between the average scores of the experimental group in the pre- and post-application Physical variables

Variables	Measurment	Average	standard deviation	Degrees of freedom	value (v)	Sig P.Value (0.05)	Improve ment rate %
22m running test in a curve	Tribal	4.52	0.016	9	133.47	0.00	-14.15
	after me	3.88	0.003				
Front and back running test for a distance of 252	Tribal	84.60	0.028	9	990.48	0.00	-12.97
	after me	73.62	0.014				
Bend arm flexion test	Tribal	29.38	0.021	9	-1122.86	0.00	36.82
	after me	40.20	0.016				
Nelson motor response test	Tribal	2.13	0.003	9	104.14	0.00	-5.63
	after me	2.01	0.001				
800g medicine ball throw test of stability	Tribal	11.49	0.063	9	-29.66	0.00	24.28
	after me	14.28	0.300				
Vertical jump test from stability	Tribal	36.45	0.036	9	-165.45	0.00	7.29
	after me	39.11	0.024				
600 meter running test	Tribal	3.50	0.026	9	74.48	0.00	-31.42
	after me	2.40	0.031				

\*The tabular (t) value is at a significance level of 0.05 = 2.26

It is clear from Table No.15) There are differences between the pre- and post-application of the experimental group in the physical

variables under research in favor of the post-measurements, as we find that the value of (calculated T) with the level of significance P.Value Sig < 0.05.

### Schedule (16)

It shows the t-statistics and the significance of the differences between the average scores of the experimental group in the pre- and post-application of the complex offensive skill variables.

Variables	Measurement	Average	standard deviation	Degrees of freedom	value (v)	Sig P.Value (0.05)	Improvement rate %
Dribbling test, then passing and receiving, then deceiving with the body, then shooting	Tribal	8.70	0.011	9	215.22	0.00	-24.13
	after me	6.60	0.033				
Testing passing and receiving, then deception by shooting from below, then deception by shooting from above, then	Tribal	8.84	0.019	9	300.78	0.00	-20.36
	after me	7.04	0.001				
Testing passing and receiving, then dribbling, then deceiving with the body, then shooting	Tribal	8.16	0.003	9	889.89	0.00	-19.22
	after me	6.59	0.005				

\*The tabular (t) value is at a significance level of 0.05 = 2.26

It is clear from Table No.16) There are differences between the pre- and post-application of the experimental group in the complex offensive skill variables under research

in favor of the post-measurements, where we find that the value of (calculated T) is with the level of significance. P.Value Sig < 0.05.

### Schedule (17)

It shows the t-statistics and the significance of the differences between the average scores of the experimental group in the pre- and post-application of respiratory abilities.

Variables	Measurement	Average	standard deviation	Degrees of freedom	value (v)	Sig P.Value (0.05)	Improve ment rate %
Vital capacity	Tribal	4.38	0.018	9	-	0.00	27.85
	after me	5.60	0.024				
Maximum oxygen consumption VO2	Tribal	72.91	0.032	9	-	0.00	27.41
	after me	92.90	0.053				
Resting heart rate	Tribal	65.23	0.248	9	37.10	0.00	-6.00
	after me	61.31	0.322				

\*The tabular (t) value is at a significance level of 0.05 = 2.26

It is clear from Table No.17) There are differences between the pre- and post-application of the experimental group in the respiratory

abilities under study in favor of the post-measurements, as we find that the value of (calculated T) with the level of significance P.Value Sig < 0.05.

#### Schedule (18)

**It shows the t-statistics and the significance of the differences between the group average scores Female officer In the pre- and post-application of physical variables**

Variables	Measurement	Average	standard deviation	Degrees of	value (v)	Sig P.Value	Improvement
22m running test in a curve	Tribal	4.51	0.050	9	19.20	0.00	-
	after me	4.00	0.047				
Front and back running test for a distance of 252	Tribal	84.59	0.015	9	341.70	0.00	-4.36
	after me	80.90	0.031				
Bend arm flexion test	Tribal	29.40	0.047	9	-	0.00	16.29
	after me	34.19	0.048				
Nelson motor response test	Tribal	2.13	0.001	9	16.11	0.00	-0.46
	after me	2.12	0.003				
800g medicine ball throw test of stability	Tribal	11.50	0.047	9	-14.31	0.00	7.39
	after me	12.35	0.201				
Vertical jump test from stability	Tribal	36.48	0.064	9	0.26	0.00	-0.29
	after me	36.40	0.959				
600 meter running test	Tribal	3.47	0.031	9	1.49	0.00	-1.72
	after me	3.41	0.110				

\*The tabular (t) value is at a significance level of 0.05 = 2.26

It is clear from Table No.18) There are differences between the group's pre- and post-application Female officer In the physical variables under investigation, in favor of dimensional measurements,

we find that the value of (calculated T) corresponds to the level of significance P.Value Sig < 0.05, except for the test Vertical jump from standstill, 600 meter running test There are no significant differences.

## Schedule (19)

It shows the t-statistics and the significance of the differences between the group average scores Female officer In the pre- and post-application of complex offensive skill variables

Variables	Measurement	Average	standard deviation	Degrees of freedom	value (v)	Sig P.Value (0.05)	Improvement rate %
Dribbling test, then passing and receiving, then deceiving with the body, then shooting	Tribal	8.70	0.024	9	116.92	0.00	-9.88
	after me	7.84	0.006				
Testing passing and receiving, then deception by shooting from below, then deception by shooting from above, then dribbling, then shooting	Tribal	8.84	0.003	9	1100.31	0.00	-9.04
	after me	8.04	0.002				
Testing passing and receiving, then dribbling, then deceiving with the body, then shooting	Tribal	8.15	0.002	9	775.05	0.00	-13.66
	after me	7.04	0.005				

\*The tabular (t) value is at a significance level of 0.05 = 2.26

It is clear from Table No.19) There are differences between the pre- and post-application of the control group in the complex offensive skill

variables under research in favor of the post-measurements, as we find that the value of (calculated T) is with the level of significance. P.Value Sig < 0.05.



### Schedule (20)

It shows the t-statistics and the significance of the differences between the group average scores Female officer In the pre- and post-application of respiratory abilities

Variables	Measurement	Average	standard deviation	Degrees of freedom	value (v)	Sig P.Value (0.05)	Improvement rate %
Vital capacity	Tribal	4.35	0.033	9	-11.31	0.00	5.74
	after me	4.60	0.050				
Maximum oxygen consumption VO <sub>2</sub> max	Tribal	72.92	0.016	9	-619.65	0.00	9.57
	after me	79.90	0.033				
Resting heart rate	Tribal	65.20	0.009	9	158.79	0.00	-1.22
	after me	64.40	0.015				

\*The tabular (t) value is at a significance level of 0.05 = 2.26

It is clear from Table No.20) There are differences between the group's pre- and post-application Female officer In the respiratory capabilities under

investigation in favor of dimensional measurements, we find that the value of (calculated T) corresponds to the level of significance P.Value Sig < 0.05.

### Schedule (21)

Explains the significance of the differences between the average scores Sample of the experimental and control groups in Dimensional measurements of variables Physical under consideration n: 10

Variables	the group	Average	standard deviation	the difference Between averages	value (v)	Sig P.Value (0.05)
22m running test in a curve	Experimental	3.88	0.00	-0.12	-8.07	0.00
	Female officer	4.00	0.05			
Front and back running test for a distance of 252 metres	Experimental	73.62	0.01	-7.28	-687.46	0.00
	Female officer	80.90	0.03			
Bend arm flexion test	Experimental	40.20	0.02	6.01	378.30	0.00
	Female officer	34.19	0.05			
Nelson motor response test	Experimental	2.01	0.00	-0.11	-96.80	0.00
	Female officer	2.12	0.00			
800g medicine ball throw test of stability	Experimental	14.28	0.30	1.93	16.91	0.03
	Female officer	12.35	0.20			
Vertical jump test from stability	Experimental	39.11	0.02	2.71	8.93	0.00
	Female officer	36.40	0.96			
600 meter running test	Experimental	2.40	0.03	-1.01	-27.98	0.01
	Female officer	3.41	0.11			

\*The tabular t-value is at a significance level of 0.05 = 2.10

The table shows (21) There are statistically significant differences between the post-measurements of the two groups (experimental and control) in the physical variables under study in

favor of the experimental group, as the calculated t-value is greater than the tabulated t-value at a significance level of 0.05.

#### Schedule (22)

**Explains the significance of the differences between the average scores Sample of the experimental and control groups in Dimensional measurements For complex offensive skill variables n: 10**

Variables	the group	Average	standard deviation	the difference Between averages	value (v)	Sig P.Value (0.05)
Dribbling test, then passing and receiving, then deceiving with the body, then shooting	Experimental	6.60	0.03	-1.24	-115.76	0.00
	Female officer	7.84	0.01			
Testing passing and receiving, then deception by shooting from below, then deception by shooting from above, then dribbling, then shooting	Experimental	7.04	0.00	-1.00	-1254.36	0.00
	Female officer	8.04	0.00			
Testing passing and receiving, then dribbling, then deceiving with the body, then shooting	Experimental	6.59	0.00	-0.45	-204.96	0.00
	Female officer	7.04	0.01			

\*The tabular (t) value is at a significance level of 0.05 = 2.10

The table shows (22) There are statistically significant differences between the post-measurements of the two groups (experimental and control) in the complex offensive skill variables

under study in favor of the experimental group, as the calculated t-value is greater than the tabulated t-value at a significance level of 0.05.

#### Schedule (23)

**Explains the significance of the differences between the average scores Sample of the experimental and control groups in Dimensional measurements of respiratory capacity under consideration n: 10**

Variables	the group	Average	standard deviation	the difference Between averages	value (v)	Sig P.Value (0.05)
Vital capacity	Experimental	5.60	0.02	1.01	57.55	0.00
	Female officer	4.60	0.05			
Maximum oxygen consumption VO <sub>2</sub>	Experimental	92.90	0.05	13.00	659.22	0.00
	Female officer	79.90	0.03			
Resting heart rate	Experimental	61.31	0.32	-3.09	-30.35	0.00
	Female officer	64.40	0.02			

\*The tabular (t) value is at a significance level of 0.05 = 2.10

The table shows (23) There are statistically significant differences between the post-measurements of the two groups (experimental and control) in the respiratory capabilities under study in favor of the experimental group, as the calculated T-value is greater than the tabulated T-value at a significance level of 0.05. .

### **Second: Discussing the results:**

#### **Discussing the results of the first hypothesis:**

Which states (There are statistically significant differences between the pre- and post-measurements of the experimental group in the level of some physical variables, complex offensive skills, and respiratory abilities under investigation in favor of the post-measurement.).

It is clear from Schedule (15) Concerning the significance of the differences between the pre- and post-measurements of the experimental group in favor of the post-measurements in the physical variables under investigation, as the calculated (t) value was limited to (-1122.86: 990.48), which is statistically significant in all physical tests because it is greater than the tabulated (t) value at The level of significance was 0.05 and equal to 2.26, which reached the highest percentage of improvement in the test Bend the arms from prone position A percentage improvement rate of (36.82%).

It is clear from Schedule (16) Concerning the significance of the differences between the pre- and post-measurements of the experimental group in favor of the post-measurements in the composite offensive skill variables under investigation, as the calculated (t) value was limited to (215.22: 889.89), which is statistically significant in all composite offensive skill tests because it is greater than the (t) value. ) tabulation at a significance level of 0.05 and equal to 2.26, as the highest percentage of improvement was achieved in the test Dribbling, then passing, receiving, then deceiving with the body, then shooting A percentage improvement of (-19.22%).

The researcher attributes that the humanistic training It led to a positive impact on the experimental group's physical tests and offensive skills and the sample members' regularity in training during the period of the proposed training program.

Ayman Al-Suwaify (2017) (4) states that the humanistic training program affects in a positive way the improvement of physical variables (endurance, strength, speed, muscular ability of the arms and legs, and speed of reaction) and that humanistic training has a clear role in developing the physical variables, which in turn is reflected in improving skill performance.

Walid Hassan (2020 AD) (28) also indicates that human training has a positive effect on the development of skill performance, which also leads to a clear improvement in the level of physical variables, which increases the rates of improvement in skill performance, and deep breathing training also plays an important role in the speed of the player's recovery and his ability to recover. Trying to struggle and continue within the match to achieve the desired goal and persevere in exerting effort throughout 60 seconds so that he can overcome the difficulties he faces during the match, which helped adapt the performance of the experimental group.

In this regard, Abdul Hamid Muhammad (2021 AD) confirms: **Peter Kavacs (2002 AD)** The main factor associated with achieving high and distinguished levels, raising the level of players, depends on the player's ability to endure the performance, as it is the greatest common factor for the player to reach the sporting form and optimal skill performance for the longest possible period during the match without a decrease in the level of performance. (10:73), (35:136)

This is consistent with the results of the study of Sayed Abu Zaid (2021AD) (7), Shaima Faraj (2019AD) (8), and Walid Hassan (2020AD) (28) that insanti training includes many benefits such as increasing muscular

ability, performance endurance, speed, etc., and also It increases the capacity of the respiratory and cardiac systems and increases the ability to adapt performance. It has a positive effect on physical and skill variables.

It is clear from Schedule (17) Concerning the significance of the differences between the pre- and post-measurements of the experimental group in favor of the post-measurements in the respiratory capacity under investigation, as the calculated (t) value was limited to (-1716.94: 37.10), which is statistically significant in all respiratory capacities because it is greater than the tabulated (t) value at The level of significance was 0.05 and equal to 2.26, which reached the highest percentage of improvement in the test **Vital capacity** A percentage improvement rate of (27.85%).

The researcher attributes the results of statistically significant differences for the experimental group in the respiratory function variable to the positive effect of using exercises **Insanity** On the components of the structural structure of the variables under research and the suitability of the proposed training program for the research sample according to the abilities and capabilities of the sample members, taking into account the diversity of the exercises used.

Samia Mahran (2021 AD) mentions that humanistic training is one of its most important features: high efficiency and gradual intensity between simple and high, as it contributes greatly to improving the training condition of the players. (6:191)

And everyone agrees **Jensen and Fisher (1985 AD), Muhammad Allawi (1994 AD), Essam Abdel Khaleq (2003 AD)** The exercises included in the training program must be compatible with the nature of the sporting activity practiced in order to make the practice more positive and achieve the desired results in competition, as it is the basis for reaching high levels and thus is reflected in the training situation.

(33:139), (20:68), (11:97)

These results are consistent with the results of the study of Samia Mahran (2019AD) (6), Shaima Faraj (2019AD) (8), Hamdi Al-Sayed Abdel Hamid (2022AD) (5), Kanang et al. **Kanang et al. (2014) (34), Fernandez et al. Fernandez et al. (2006AD) (30)** That drills **Insanity** It has a positive effect in improving the technical performance of players, whether physically or skillfully, and has many benefits, including increasing the player's ability to endure performance and cyclic respiratory endurance, which in turn is reflected in improving the ability of the

respiratory system and heart and increasing the ability to adapt to performance, and this is what the researcher confirmed that during the use of training exercises **InsanityCare** was taken to select the most specialized exercises and employ them in a way that was appropriate for the experimental sample.

The researcher also confirms that the development of the experimental group in physical and skill performance is not limited to intense deep breathing exercises. **QIGONG** It also plays an important role in supporting the handball player's rapid recovery and resistance to fatigue by developing aerobic endurance and pumping large amounts of oxygen. This contributed greatly to storing energy for the members of the main sample. The researcher also relied on deep breathing exercises. **QIGONG** During the warm-up periods, the rest period between sets, and the cool-down with motor performance to bring the players to a normal state and speed up recovery from the impact of the training unit.

It confirms both **Study by Sayed Abu Zaid (2021 AD) (7), and study by Tae-Yun Kima, Jung Hoon Kim Tea Yoon Kima, Jung Hyun Kim (2020AD) (38)** On the importance of exercises **QIGONG** In recovery and mobilizing the energies of the players through deep breathing exercises and

contemplating the goal to be achieved in bearing the burden of training to improve the level through what is called (the life card) (breathing).

Therefore, the researcher believes that building an aerobic base and saving a reserve of aerobic energy for the handball player while building training units with high-intensity intensity plays an important role in improving and developing the player's training condition, and this is reflected in the player's ability to continue during the two halves of the match (60 seconds) with the same effectiveness and efficiency at which it begins. The match progresses with the training level away from traditional methods.

Therefore, the researcher confirms that training associated with high performance and little rest, it constitutes a burden on the circulatory and respiratory system, and this appears during the application period (8) weeks, which contributes to the occurrence of functional adaptation and improvement of respiratory capabilities, as the heart rate may reach the maximum limit of the player's ability, and here it shows us the effectiveness of the exercises. QIGONG which is performed during rest periods between sets during training. Also, during the warm-up and closing period, we find that it clearly contributes to the expansion of

the lungs and the absorption of a greater amount of oxygen and its transfer to the blood and from there to the working muscles, which increases the player's oxygen consumption capacity and improves functional capabilities.

Through the previous presentation and discussion of the first hypothesis of the research, we find that it has been achieved procedurally. Discussing the results of the second hypothesis:

Which states (There are statistically significant differences between the pre- and post-measurements of the control group in the level of some physical variables, complex offensive skills, and respiratory abilities under investigation in favor of the post-measurement.).

It is clear from Schedule (18) Concerning the significance of the differences between the pre- and post-measurements of the control group in favor of the post-measurements in the physical variables under study, as the calculated (t) value was limited to (-182.70: 341.70), which is statistically significant in all physical variables because it is greater than the tabulated (t) value at The level of significance was 0.05 and equal to 2.26, which reached the highest percentage of improvement in the test Bend the arms from prone position A percentage improvement of (16.29%).

It is clear from Schedule (19) Concerning the significance of the differences between the pre- and post-measurements of the control group in favor of the post-measurements in the composite offensive skill variables under investigation, as the calculated (t) value was limited to between (116.92: 1100.31), which is statistically significant in all the composite offensive skill variables because it is greater than the (t) value. ) tabulation at a significance level of 0.05 and equal to 2.26, as the highest percentage of improvement was in the test Pass and receive then cheat pal Shoot from below, then trick by shooting from above, then dribble Then straighten A percentage improvement rate of (9.04%).

It is clear from Schedule (20) Concerning the significance of the differences between the pre- and post-measurements of the control group in favor of the post-measurements in the respiratory abilities under investigation, as the calculated (t) value was limited to (-619.65: 158.79), which is statistically significant in all respiratory abilities because it is greater than the tabulated (t) value at The level of significance was 0.05 and equal to 2.26, which reached the highest percentage of improvement in the test Maximum oxygen consumption VO<sub>2</sub> max A percentage improvement rate of (9.57%).

The researcher attributes the results of the post-measurements of the control group to being a logical result for the sample members during the period of implementation of the training program followed by the team coach. The researcher attributes this slight improvement to the regularity of the control group members in training, as the coaches neglect to pay attention to deep breathing exercises and the necessity of taking into account and monitoring respiratory abilities. For the players, they rely on traditional exercises within the unit, such as stretching and flexibility only, periodic respiratory endurance during the warm-up period, general physical preparation only, and no development in aerobic and respiratory exercises, despite the necessity of monitoring the functional status of the player in order not to create a physiological burden on the player's respiratory and circulatory systems, so there is improvement in the group members. The control group, but to a small extent, and also the continuation of the control group in training is considered one of the important principles of training within the framework of continuity of training, and it is one of the reasons for the improvement of the control group in the variables under study.

Mounir Girgis (2004 AD) states that the requirements of the handball player are important factors for

achieving complex skill performance in handball. It requires physical elements that are appropriate to the nature of the skill performance. Therefore, developing physical fitness elements helps the player to protect the offensive position throughout the match and thus behave well and achieve the best performance. Results . (26:57)

Kamal Darwish, Qadri Morsi, and Imad al-Din Abu Zaid (2002 AD) confirm that the skill requirements are the player's ability to score the largest number of goals and that this can only be achieved by mastering performance without a decline in physical and functional level. (15:47)

This is consistent with the results of each study Muhammad Ashraf (2004 AD)(16), Shaima Faraj (2019AD) (8), Samia Mahran (2019AD) (6), child Hassan (2020 AD) (28), Muhammad Kazem (2015 AD) (25).

Through the previous presentation and discussion of the second hypothesis of the research, we find that it has been achieved procedurally.

### **Discussing the results of the third hypothesis:**

Which states (There are statistically significant differences between the post-measurements of the experimental and control groups at the level of some (physical variables,

complex offensive skills, and respiratory abilities under investigation in favor of the experimental group)).

It is clear from Schedule (21) Figure (1) of the significance of the differences between the post-measurements of the experimental and control groups in favor of the experimental group in the physical variables under study, as the calculated (t) value was limited to (-687.46: 378.30), which is statistically significant in all physical variables because it is greater than the value (T) The tabulation is at a significance level of 0.05 and equal to 2.10, as it reached the highest statistical significance in the test Throw an 800g medicine ball from stability It reached (0.03).

It is clear from Schedule (22) And Figure (2) of the significance of the differences between the post-measurements of the experimental and control groups in favor of the experimental group in For complex offensive skill variables Under investigation, as the calculated (T) value was limited to (-1254.36: -115.76), which is statistically significant in all cases. For complex offensive skill variables Because it is greater than the tabulated (t) value at a significance level of 0.05, which is equal to 2.10.

It is clear from Schedule (23) And Figure (3) of the significance of the differences between the post-



measurements of the experimental and control groups in favor of the experimental group **Respiratory capabilities** Under investigation, as the calculated (T) value was limited to (-30.35: 659.22), which is statistically significant in all cases. **Respiratory capabilities** Because it is greater than the tabulated (t) value at a significance level of 0.05, which is equal to 2.10.

The researcher attributes this clear improvement through presenting the results to the application of the training program using humanistic exercises. In the physical variables, complex offensive skills, and respiratory capabilities under investigation for the benefit of the experimental group, this depends primarily on following scientific principles and foundations in training in order to achieve the desired goal.

The researcher attributes the results reached by the control group to the regularity of the group members in the usual daily training and following scientific rules, and the clear improvement in the physical and skill tests of the experimental group is due to the proposed program in addition to the continuous competition among the sample members to achieve the best technical level. We should also not forget that good planning For the humanist program using Qi Gong exercises. QIGONG It led to a clear improvement in the respiratory

capabilities of the experimental group during the training program period (8) weeks. The experimental group achieved positive results in improving respiratory efficiency and lung expansion compared to the control group. Results showed less improvement in favor of the experimental group.

This is confirmed by Aya Farid (2019), that the ultimate goal of those working in the sports field is to improve and develop performance and achieve sports achievement based on scientific research to improve sports performance and achieve achievements. (3:1)

Cheng adds Sheng (2015AD) (37), James Reifer James Driver (2012AD) (32) Qi gong training helps burn fat and improve the breathing process, which helps enhance health and allows the player to withstand the effort expended during the match without dropping in level. Humanistic training also achieves a high level of time compared to other forms of training and thus improves athletic performance.

Hilki Jackson confirms this **Hailey Jackson (2019AD) (31)** Aerobic and anaerobic training contribute greatly to burning fat and gaining a good level of fitness, as any human training plays a role in improving the player's physical fitness, in addition to deep breathing training,

which helps effectively and clearly in improving the level of the player's respiratory efficiency, and this is reflected in achieving high athletic levels.

This is consistent with the study of Walid Hassan (2020AD) (28), Sayed Abu Zaid (2021AD) (7), Shaima Faraj (2019AD) (8), Hamdi Al-Sayyid Abdel Hamid (2012AD) (5), and Ayman Al-Suwaifi (2017AD). (4) Human training using qi gong exercises has led to building an aerobic base for the player and increasing the ability to continue in the match throughout a period of 60 minutes without feeling tired and stressed. Rather, his performance appears well, which is reflected in the combined physical and skill performance of the experimental group, so he has an effective role in positive The technical level of the player and he can perform his physical, skill and tactical duties in a fairly integrated manner and demonstrates his proficiency in the art of the game and carrying out his required duties on the field with quality and effectiveness.

Through the previous presentation and discussion of the third hypothesis of the research, we find that it has been achieved procedurally.

Conclusions and recommendations:

Conclusions:

In light of the objectives and hypotheses of the research and the

presentation and discussion of the results, the following conclusions can be drawn:

- 1- Impact exercises Insanity And deep breathing QIGONG Positive effectin Improvement of some respiratory variables under investigation.
- 2- Impact exercises Insanity And deep breathing QIGONG Positive effectin Some physical variables are under investigation.
- 3- Impact exercises Insanity And deep breathing QIGONG Positive effectin Some complex offensive skill variables under investigation.

**Recommendations:**

**In light of the research findings, the researcher recommends the following:**

- 1- Educating trainers about the importance of training Insanity To increase functional and respiratory efficiency.
- 2- The need to shed light on the application of training Insanity And deep breathing QIGONG In various sports activities and various age stages.
- 3- Trainers' interest in using exercises Insanity While training special teams to help them raise their physical and skill levels.
- 4- Conduct more similar scientific studies in the field of training Insanity And deep breathing.
- 5- It is necessary to educate trainers about the importance of deep

breathing exercises QIGONG In recovery and meditation in training modules and developing respiratory abilities.

6- It is necessary to pay attention to monitoring, evaluating and developing training programs and good planning for rest periods.

**the reviewer**

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