**Scholar's Digest- Journal of Multidisciplinary Studies**
Volume 3, Issue 5, May - 2024
ISSN (E): 2949-8856
Scholarsdigest.org

# OXYGEN EXERCISES AND THEIR IMPACT ON THE LEVEL OF IMMUNOGLOBIN AND SOME FUNCTIONAL INDICATORS AND PERFORMANCE TOLERANCE OF WRESTLERS

Ahmed Razzaq Zghair
Basra University for Oil and Gas College of Industrial Administration for Oil and Gas
ahmedrz994@gmail.com

Prof. Dr. Ammar Jasim Muslm
University of Basra

**Abstract**
The exercise of sports activities, especially the organization, aims to develop the special physiological abilities required to perform the sporting activity of the individual. The exercise of these activities undoubtedly leads to numerous adaptations in the functional organs of the body. These biological adaptations that occur in the internal organs of the individual's body increase their functional abilities. Hence the importance of our study dealing with some of the chemical functional indicators (heart rate, respiratory rate, systolic blood pressure, diastolic blood pressure, IgG,), performance tolerance and the extent to which they are affected by oxygen exercises. The research problem is identified in the statement of the role of oxygen exercises on the heart, blood vessels, immune proteins "globes" and performance tolerance in individuals of the research sample. The research aims to prepare proposed oxygen exercises for advanced wrestlers. The two researchers drew on the pilot curriculum on a sample of 6 applicant-class wrestling players representing Basra Oil Sports Club for the season (2022 - 2023) in Basra Governorate. Physical effort was represented by performance tolerance testing. Through the results of the research, the most important conclusions emerged.
1- The exercises prepared by the two researchers have had a positive impact on the chemical functional indicators and the performance tolerance of the wrestlers applying to the Basra Oil Sports Club.
2- Oxygen exercises have advanced both the functions of the heart muscle and the periodic and respiratory system

**Keywords**: oxygenic exercises: globin: circulatory and respiratory system.

## Introduction

Choosing the exercises, the way they are prepared, and verifying their content, at what stage of the preparation stage they are performed, or in which section of the training unit, is a matter of utmost importance for improving the level of the wrestlers. Although the game of wrestling depends on the anaerobic system, this does not mean that there is no need for oxygen exercises that It makes the wrestler have the ability to continue to bear the burdens

of the matches, their high intensity and the energy they deplete by using special strength while performing the grabs (Abdelkader, 2023) or getting rid of them. Giving the opportunity to return the internal center of the working muscles to its normal position gives the opportunity to continue the competition performance despite the violent effort, which is It depends on the capacity of the heart muscle and the integrity of the blood vessels.

In addition to the effect of increased oxygen capacity, it increases immune activity to confront wastes produced by metabolic processes during performance of training units and competitions. Hence, the researchers decided to choose to prepare a group of oxygen exercises and implement them at the end of the special preparation stage and in the competition stage to improve cardiac efficiency and blood vessel safety, improve the wrestlers' immune aspect and raise their performance endurance. (ZGHAIR & MUSLM, 2023)

Despite the fact that the larger area in the training circle is due to the anaerobic energy system of wrestling players, as the match continues, especially in the last round, the opposite happens. Many wrestlers lose the ability to score points and take the initiative in attacking the opponent and executing grabs. This is despite the fact that he possesses all kinds of strength.

Perhaps speed and speed of response, but the fatigue that occurred due to the accumulation of metabolic products, energy exhaustion, the ineffectiveness of the circulatory system represented by the heart muscle, the integrity of the blood vessels, the increase in cardiac output and blood flow, and the change in the path of blood to the working areas of the muscles, will accumulate the products that cause fatigue and a change in the fluid surrounding the muscles out of proportion. And its natural components, and this is reflected in their low level, and they may lose the fight. Hence, the two researchers decided to choose the problem of their research in the extent of the wrestlers' ability to bear the burden of the competition until the last minutes of the fight by knowing the improvement in the level of performance endurance and the development of the immune system represented by globin, as well as the increased efficiency of the functional indicators of the circulatory system.

**The objective of the study**

1- Preparing suggested oxygen exercises for wrestlers applying to the Basra Oil Club in Basra

2- Identifying the differences between measurements and tests before and after physical effort for some functional indicators, globin protein, and performance endurance among the research sample before implementing the experimental variable.

3- Identifying the differences between measurements and tests after physical effort for some functional indicators, globin protein, and performance endurance among the research sample before and after implementing the experimental variable.

**Methods and structure of the study**

**Experimental approach to the problem**

The nature of the research issue to be studied determines the nature of the approach chosen by the researchers to solve the problem, so the experimental approach was chosen for its

suitability to solve the research problem and achieve its objectives. (Nuri Ibrahim Al-Shouk and Rafi Saleh Fathi: 2004)

**Participants**

The research community was determined by the wrestlers of the Basra Oil Sports Club, which numbered (12) wrestlers. A sample of the research community was chosen intentionally and amounted to (6) wrestlers, i.e. (50%).

**Procedure**

Arab and foreign sources, International Information Network (Internet), tests and measurement

Tests and measurements used in the research:

The measurements and tests used in the research were conducted before and after the physical effort by the researchers, as follows:

First: Functional indicators: The functional indicators were measured before and after exertion and from sitting

1- Heart rate and blood pressure were measured using a cardboard device designated for this purpose. (Osama Riyad: 2001)

2- Respiratory rate was based on observation of the mechanical movement of the respiratory system. (Ammar Jassim Muslim and Aqeel Muslim Abdul Hussein: 2010)

Second: Measuring globin protein: 5 cc of venous blood was drawn to measure globin protein (IgG) through the diagnostic kit and the ELISA device.

Third: Performance Endurance Test (Ahmed Abdel Hamid Amara and Hossam El Din Mustafa Hamed: 2009)

**Measures**

**Pretests:**

On February 6, 2023, the researchers conducted a resting cardiac test before implementing the experimental variable. Tests and measurements were performed according to the following mechanism:

1- Measuring functional indicators (measuring heart rate - arterial blood pressure - and respiratory rate)

2- Blood drawn to measure immunoglobin (IgG) by a specialized medical team

3- Performance endurance test: After performing a similar warm-up for all the samples, the test is performed for each individual, and the number of times the required grabs are performed in the test is calculated for a period of 3 minutes. The researchers considered it a physical effort as well as a performance endurance test, then repeating the same functional measurements and measuring immunoglobin after the effort.

**Experimental variable:**

The experimental variable was prepared after reviewing the scientific sources and through the experience of the researchers, and the variable was implemented on 2/7/2023 for a period of 6 weeks at the rate of three training units per week, meaning the number of units included

in the experimental variable reached 18 training units, and it included oxygen exercises on running on a treadmill. Moving walk and holds that are performed repeatedly and over time within the oxygen system. The experimental variable was implemented in the main section of the training unit, and the experimental variable ended on 5/1/2023.

Posttests:

On May 2, 2023, the researchers conducted the post-tests using the same mechanism as the pre-tests, as follows:

1- Measuring functional indicators (measuring heart rate - arterial blood pressure - and respiratory rate)

2- Blood drawn to measure immunoglobin (IgG) by a specialized medical team

3- Performance endurance test: After performing a similar warm-up for all the samples, the test is performed for each individual, and the number of times the required grabs are performed in the test is calculated for a period of 3 minutes. The researchers considered it a physical effort as well as a performance endurance test, then repeating the same functional measurements and measuring immunoglobin after the effort.

Analyses

1- Arithmetic mean

2- Standard deviation

3- Percentage

4- T-test for correlated samples

**Results**

Presenting and discussing the results of measurements and tests of differences before and after effort (before the experimental variable) in the functional indicators of the research sample.

Table No. (1) shows the arithmetic means, standard deviations, calculated T value, and Sig value before and after effort (before the experimental variable) in the functional indicators of the research sample.

| Sig | T | After effort (after the experimental variable) | | After the effort (before the experimental variable) | | Variables |
|---|---|---|---|---|---|---|
| | | Std. | Mean | Std. | Mean | |
| 0.01 | 26.58 | 6.84 | 157.34 | 4.95 | 68.76 | Heart rate |
| 0.00 | 18.38 | 5.32 | 45.23 | 2.65 | 18.83 | Respiratory rate |
| 0.01 | 4.61 | 13.94 | 151.95 | 11.96 | 127.37 | Systolic pressure |
| 0.6 | 0.023 | 11.14 | 78.11 | 8.95 | 78.43 | Diastolic pressure |
| 0.02 | 18.63 | 336.21 | 1452,21 | 254.97 | 1373,2 | IgG |

It is clear from Table No. (1) that the arithmetic mean of the heart rate at rest was (68.76) and its standard deviation was (4.95), while the arithmetic mean after physical effort was (157.34) and its standard deviation was (6.84), and when compared to the value of (Sig), it

is greater From 5%, therefore, there are significant differences in favor of the post-test in heart rate.

The arithmetic mean of the respiratory rate at rest was (18.83) and its standard deviation was (2.65). The arithmetic mean after physical effort was (45.23) and its standard deviation was (5.32). When compared to the value of (Sig), it is greater than 5%, and therefore there are significant differences in favor of Posttest on respiratory rate.

The arithmetic mean of systolic pressure at rest was (127.37) and its standard deviation was (11.96). The arithmetic mean after physical effort was (151.95) and its standard deviation was (13.94). When compared to the value of (Sig), it is greater than 5%, and therefore there are significant differences in favor of the test. Dimensional systolic blood pressure.

The arithmetic mean of diastolic pressure at rest was (78.43) and its standard deviation was (8.95). The arithmetic mean after physical effort was (78.11) and its standard deviation was (11.14), while when comparing the value, the value of (Sig) in measuring diastolic blood pressure is greater. From 5%, therefore there are no significant differences.

The arithmetic mean of the IgG protein at rest was (1373.2) and its standard deviation was (254.97). The arithmetic mean after physical effort was (1452.21) and its standard deviation was (336.21). When compared to the value of (Sig), it is greater than 5%, and therefore there are significant differences in favor of the test. The dimension in the IgG protein.

The researchers believe that the values of measurements of functional indicators and immune activity of IgG protein concentration at rest before the sample was subjected to the experimental variable indicate the presence of some kind of adaptation among the research sample of advanced wrestlers and may be due to their submission and commitment to the coach's training curriculum in addition to the effects of the competitions they participated in, all of which had an impact. Causing changes in the functions and systems of the body, including the circulatory and respiratory systems, the heart muscle, as well as immune proteins.

While the two researchers believe that the differences occurring between before and after performing the effort are the result of the response of the functional devices that must be compatible with the type of physical effort in order to continue performing the effort and with the availability of energy, and this is what raised the values of both heart rate and respiratory rate, as well as systolic blood pressure. Youssef Lazem and others (2013) point out that regular sports training leads to physiological changes in all functions and systems of the athlete's body, especially the functions of the heart and circulatory system. Well-trained individuals can adapt to physiological changes that occur in the body's systems as a result of muscular effort and continuing to perform this effort. Among these changes is an increase in the number of heartbeats and the number of breathing times, while untrained people cannot resist these changes (Ameer et al., 2023).

Sports training also has an effect on blood pressure, as the difference differs between systolic pressure, which is higher than its average, and diastolic pressure, which is lower than its average. Sports activity and regular training have a significant impact on the functional efficiency of the heart and circulatory system (Youssef Lazem Kammash et al.: 2013).

Physical effort also increases immune activity, which is affected by physical exercise, in order to get rid of metabolic products and ruptures that occur in muscle fibers and body cells. The researchers, along with Amin Khazal (2018), believe that sports training leads to changes in the blood, as happens with any other body system. These are changes that occur in the blood as a result of regular sports training for a certain period of time, which leads to the blood adapting to perform physical training.

These changes include an increase in blood volume, hemoglobin volume, red cells, and also white cells, which are no less important for the athlete due to the important role they play in resisting diseases. Immune cells are closely linked to the field of training and preparation for competitions, as the pre-competition stage is considered one of the most important sensitive stages. During the training season due to the variety of its purposes, between low and high loads to increase adaptation, and the increase in the level of white blood cells is related to some variables such as the intensity of the training load, its duration, and the level of physical fitness, and the duration of physical performance is one of the most important factors for this increase. (Amin Khazal Abd: 2018)

Presenting and discussing the results of measurements and tests before and after the effort (after the experimental variable) on the functional indicators of the research sample.

Table No. (2) shows the arithmetic means, standard deviations, calculated T value, and Sig value before and after effort (after the experimental variable) in the functional indicators for the research sample.

| Sig | T | After effort (after the experimental variable) | | After the effort (before the experimental variable) | | Variables |
|---|---|---|---|---|---|---|
| | | Std. | Mean | Std. | Mean | |
| 0.00 | 22.29 | 7.98 | 150.76 | 5.93 | 66.58 | Heart rate |
| 0.03 | 6.201 | 8.95 | 41.65 | 3.27 | 17.63 | Respiratory rate |
| 0.002 | 3.096 | 15.21 | 144.87 | 13.96 | 122.98 | Systolic pressure |
| 0.08 | 0.788 | 6.83 | 75.23 | 4.98 | 77.84 | Diastolic pressure |
| 0.00 | 16.29 | 278.23 | 1574,21 | 266.83 | 1355,01 | IgG |

It is clear from Table No. (2) that the arithmetic mean of the heart rate at rest was (66.85) and its standard deviation was (5.93), while the arithmetic mean after physical effort was (150.76) and its standard deviation was (7.98), and when compared to the value of (Sig), it is greater From 5%, therefore, there are significant differences in favor of the post-test in heart rate.

The arithmetic mean of the respiratory rate at rest was (17.63) and its standard deviation was (3.27). The arithmetic mean after physical effort was (41.65) and its standard deviation was (8.95). When compared to the value of (Sig), it is greater than 5%, and therefore there are significant differences in favor of Posttest on respiratory rate.

The arithmetic mean of systolic pressure at rest was (122.98) and its standard deviation was (13.96). The arithmetic mean after physical effort was (144.87) and its standard deviation was (15.21). When compared to the value of (Sig), it is greater than 5%, and therefore there are significant differences in favor of the test. Dimensional systolic blood pressure.

The arithmetic mean of diastolic pressure at rest was (77.84) and its standard deviation was (4.98). The arithmetic mean after physical effort was (75.23) and its standard deviation was (6.83), while when comparing the value, the value of (Sig) in measuring diastolic blood pressure is greater. From 5%, therefore there are no significant differences.

The arithmetic mean of the IgG protein at rest was (1355.01) and its standard deviation was (266.83). The arithmetic mean after physical effort was (1574.21) and its standard deviation was (278.23). When compared to the value of (Sig), it is greater than 5%, and therefore there are significant differences in favor of the test. The dimension in the IgG protein.

The researcher sees the positive changes that occurred in the functional systems, which were represented by heart rate, breathing, and blood pressure, as a result of the exercises prepared by the researchers, which have a positive effect in developing the heart muscle and increasing blood volume, the size of the heart muscle cavities, and the returning blood, which reflects the economy in heart rate, breathing rate, and blood pressure, which Accompanied by an increase in blood vessel elasticity.

Nayef Mufdi (2012) states that as a result of sports training based on sound scientific foundations, positive changes occur in the functional efficiency of the heart. The reason for the decrease in the number of heartbeats in an athlete is due to the enlargement of the heart's cavities, which leads to the absorption of a larger amount of blood, and thus the athlete gets a larger amount. of oxygen for the purpose of producing energy with a lower number of heartbeats. Also, sports training works to increase the strength of the heart muscle fibers, which leads to an increase in the force of heart contraction and thus expelling a larger amount of blood into the arteries. This means that the endurance athlete performs the effort with a greater number of heartbeats. Less than a non-athletic person, and therefore the greater the cardiac efficiency as a result of the increase in the volume of blood expelled in each heartbeat, the fewer the number of heartbeats.

This, in turn, leads to performing high-intensity exercises at a lower heart rate. Training for long periods also reduces the maximum heart rate and increases the maximum oxygen consumption. (Nayef Mufdi Al-Jabour: 2011)

The researchers agree with Youssef Lazem and others (2013) that the lower the respiratory resistance and the greater the breathing muscles, the greater the vital capacity of the lungs and thus the volume of breathing air increases, as there is a direct relationship between the vital capacity of the lungs and the maximum amount of breathing air. Practicing sports training leads to positive functional changes in The respiratory system, and these changes achieve the development of the chest muscles on the surface of the lungs and the development of their size leads to deeper and sufficient breathing in the chest muscles, which leads to an increase in the width of the rib cage.

Which improves and increases the process of gas exchange between the blood and the alveoli and economics breathing movements due to the increase in vital capacity, and then achieves an increase in the body's ability to perform maximum pulmonary ventilation resulting from a large volume of breathing air at one time and an increase in the respiratory rate. (Youssef Lazem Kammash et al.: 2013)

The researchers also confirm that the difference in favor of the post-test is the result of the body's need for more energy, which can be provided through an increase in the heart rate and the volume of air entering and consumed by the muscle cells, which requires an increase in blood pressure, which is one of the causes of blood flow and its delivery to the body cells, including working muscle cells. (Amir & Najah, 2021)

The researchers agree with Raysan Khuraibet (2014) that the main goal of training the circulatory-respiratory system is to increase the capacity of the central blood circulation of the heart and lungs and the peripheral blood circulation of the muscles that make an effort to supply them with oxygen. This ability to consume maximum oxygen is called aerobic capacity and is known as the ability to measure the function of the system. Respiratory period. (Raysan Khuraibet: 2014)

Osama Riad (2001) states that the vital energy reserve in the muscle is not increased by training and its quantities are relatively limited, while the vital processes of energy production in the presence of oxygen take place for a long period, relying on the efficiency of the physiological system to transfer oxygen from the lungs to the blood and muscles and then on the efficiency of the muscles themselves. To absorb oxygen and issue vital energy to the wrestler

Likewise, the blood vessels that transport and nourish those muscles must have a high physiological efficiency, meaning that the wrestler must have a high efficiency in his circulatory and respiratory system to ensure that all the biochemical processes in his body occur in an excellent manner and to the degree of excellence during his motor and physical performance on the field. (Osama Riyad 2001)

Presenting and discussing the results of post-stress measurements and tests (after the experimental variable) in functional indicators, IgG protein, and performance endurance for the research sample.

Table No. (3) shows the arithmetic means, standard deviations, calculated T value, and Sig value after effort (after the experimental variable) in the functional indicators, IgG protein, and performance endurance for the research sample.

| Sig | T | After effort (after the experimental variable) | | After the effort (before the experimental variable) | | Variables |
|---|---|---|---|---|---|---|
| | | Std. | Mean | Std. | Mean | |
| 0.01 | 3.761 | 7.98 | 150.76 | 6.84 | 157.34 | Heart rate |
| 0.00 | 1.943 | 8.95 | 41.65 | 5.32 | 45.23 | Respiratory rate |
| 0.02 | 2.901 | 15.21 | 144.87 | 13.94 | 151.95 | Systolic pressure |
| 0.06 | 0.544 | 6.83 | 75.23 | 11.14 | 78.11 | Diastolic pressure |
| 0.00 | 31.52 | 278.23 | 1574,21 | 336.21 | 1452,21 | IgG |
| 0.01 | 2.13 | 7.98 | 44.84 | 5.83 | 33.72 | Bearing performance |

It is clear from Table No. (3) that the arithmetic mean of the heart rate after the physical effort before the experimental variable was (157.34) and its standard deviation was (6.84). The arithmetic mean after the physical effort after the experimental variable was (150.76), while its standard deviation was (7.98). Comparing it to the value of (Sig), it is greater than 5%, and therefore there are significant differences in favor of the post-test in heart rate.

The arithmetic mean of the respiratory rate after the physical effort before the experimental variable was (45.23) and its standard deviation was (5.32). The arithmetic mean after the physical effort after the experimental variable was (41.65) and its standard deviation was (8.95), and when compared to the value of (Sig), it is greater than 5%. Therefore, there are significant differences in favor of the posttest in respiratory rate

The arithmetic mean of systolic pressure after the physical effort before the experimental variable was (151.95) and its standard deviation was (13.94). The arithmetic mean after the physical effort after the experimental variable was (144.87) and its standard deviation was (15.21), and when compared to the value of (Sig), it is greater than 5. Therefore, there are significant differences in favor of the post-test in systolic blood pressure.

The arithmetic mean of diastolic pressure after the physical effort before the experimental variable was (78.11) and its standard deviation was (11.14). The arithmetic mean after the physical effort after the experimental variable was (75.23) and its standard deviation was (6.83), while when comparing the value the (Sig) value In measuring diastolic blood pressure before and after the experimental variable after exertion, it is greater than 5%, and therefore there are no significant differences.

The arithmetic mean of the IgG protein after the physical effort before the experimental variable was (1452.21) and its standard deviation was (336.21). The arithmetic mean after the physical effort after the experimental variable was (1574.21) and its standard deviation was (278.23), and when compared to the value of (Sig), it is greater than 5. % Therefore, there are significant differences in favor of the post-test in IgG protein.

The arithmetic mean of performance endurance after the physical effort before the experimental variable was (33.72) and its standard deviation was (5.83). The arithmetic mean after the physical effort after the experimental variable was (44.84) and its standard deviation was (7.98), and when compared to the value of (Sig), it is greater than 5%. Therefore, there are significant differences in favor of the post-test in performance tolerance

The researchers believe that the reason for the occurrence of significant differences in all the functional and chemical indicators and physical characteristics that the researchers addressed is due to the effect of the physical exercises that were chosen and the grips that were performed in an oxygenic manner, the effects of which were reflected on the functional systems, including the heart muscle, the respiratory system, and the vascular system, in order to be able to perform the physical test. Represented by enduring the performance the largest number of times without dropping the level, and this is shown in the table by the superiority of the post-test for the research sample in the number of times the grips were performed in the performance endurance test compared to the pre-test, the experimental variable.

The researchers also believe that the changes included devices that contribute to the continued delivery of energy resources and their expenditure in work areas, and this can only be achieved through increasing the functional efficiency of these devices in delivering and extracting oxygen and producing energy and increasing the level of physical meaning, which increases the achievement of the largest possible number of repetitions in endurance performance. This is what we aim to achieve by continually examining the level of performance in all rounds without dropping the level. (Abdul-Zahra, 2013)

## CONCLUSIONS

1- The exercises prepared by the researchers had a positive impact on the chemical functional indicators and performance endurance of the wrestlers applying to the Basra Oil Sports Club.
2- The statistical description indicates that there is an average level of functional and immune adaptation among the research sample before rest before applying the experimental variable.
3- Oxygen exercises have led to progress in the functions of the heart muscle and the circulatory and respiratory systems.
4- Oxygen exercises increased the immune activity of the research sample.
5- An increase in the level of performance endurance, which contributes to the continuation of performance ability without a decrease in the level during catarrh.

## Recommendations

1- Emphasis on the oxygen exercises prepared by the researchers.
2- Increasing endurance exercises in the training circle, as it is the functional basis for building the rest of the qualities, as well as delaying the phenomenon of fatigue among wrestlers.
3- Conduct follow-up tests and measurements to determine the level of immune activity for its role in maintaining the health safety of the research sample.
4- Emphasis on choosing exercises that develop the special abilities of wrestlers.

## REFERENCES

1- Ahmed Abdel Hamid Emara and Hussam El-Din Mustafa Hamed: Foundations of Training in Wrestling, 1st edition, Alexandria, Dar Al-Wafaa for Printing and Publishing, 2009.
2- Osama Riyad: Sports Medicine and Strength Games, Wrestling - Boxing, 1st edition, Cairo, Al-Kitab Publishing Center, 2001.
3- Amin Khazal Abd: Physiology of Sports Training, first Arabic edition, Amman, Arab Community Library for Publishing and Distribution, 2018.
4- Raysan Khuraibet: The Selected Group on Training and Sports Physiology, 1st edition, Cairo, Al-Kitab Center for Publishing, 2014.
5- Ammar Jassim Muslim and Aqeel Muslim Abdul Hussein: Physiological foundations of the respiratory system for athletes, 2nd edition, Basra, Al-Nakhil Press, 2010.
6- Nayef Mufdi Al-Jabour: Physiology of Sports Training, First Arabic Edition, Amman, Arab Community Library for Publishing and Distribution, 2011.
7- Nouri Ibrahim Al-Shouk and Rafi Saleh Fathi: The researcher’s guide to writing research in physical education, Baghdad, Al-Shahd Press, 2004.
8- Youssef Lazem Kamash and others: Principles of Physiology in Sports and Training, 1st edition, Alexandria, Dar Al-Wafaa for Printing and Publishing, 2013.
9.Abdelkader, A. K. (2023). The Effect of Karen’s Model on Teaching Some Grips in Wrestling for Students. Journal of Studies and Researches of Sport Education, 33(1), 323–336. https://doi.org/10.55998/jsrse.v33i1.382

10.Abdul-Zahra, L. H. A. J. (2013). Find extract Impact multimedia system integrated collaborative learning style in the education of the technical performance of the elevation jerk and the cognitive level of weightlifting. Journal of Studies and Researches of Sport Education, 35.

11.Ameer, H. A., Muslim, A. J., & Abdullah, M. H. (2023). The Effect of High Temperatures on Some Functional Indicators and The Sharpness of Attention for the Players of the Basra City Team with the Fencing Epee Weapon. Journal of Studies and Researches of Sport Education, 33(1).

12.Amir, L. M. D. A.-J., & Najah, R. S. A.-A. S. (2021). The effect of exercises with a doll of varying intensity on some throwing skills from the top of the chest for junior wrestling. Journal of Studies and Researches of Sport Education, 68.

13.ZGHAIR, A. R., & MUSLM, A. J. (2023). The relationship between performance endurance and some functional and chemical indicators and attention acuity among competitive and non-competitive wrestlers. Journal of Studies and Researches of Sport Education, 33(2).