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Effect of Aerobic Weight Exercise with a Balanced Diet on Low Density Lipoproteins (LDL) and High Density Lipoproteins (HDL) for Overweight Women 35-40 Years

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ABSTRACT

The research aims to prepare a program for aerobic exercises with weights accompanied by a diet commensurate with the capabilities of the research sample, and to identify the effect of these exercises and diet on low-density lipoproteins (LDL) and high-density lipoproteins (HDL) in overweight women in the age group 35-40 years. As for the research hypotheses, there are statistically significant differences between the pre- and post-tests, in favor of the post-tests in their effect on low-density lipoproteins. (LDL) and high-density lipoproteins (HDL) in overweight women aged 35-40 years.

As for the areas of research, the human field is represented by a sample of women between the ages of 35 and 40 years, and their number is (5) women. The researchers used the experimental one-group approach. As for their conclusions, it was found that the use of aerobic exercises with weights with diet helped improve low and high density lipoproteins. The researchers recommend that you should rely on aerobics with weights and diet to increase the level of high-density lipoproteins (HDL).

1- Definition of research

1.1 Introduction

Given the ever-increasing rates of obesity and cardiovascular disease among women aged 35 to 40, as a result of lack of physical activity and unhealthy eating habits, the need to research effective and safe methods to improve overall health has become an urgent necessity. Physical exercise, along with a balanced diet, is one of the most important ways to promote health and prevent risks associated with obesity and high blood lipid levels. Aerobics with weights are among the patterns Sports that are effective in improving fitness and helping to maintain a balance of fat levels in the body, which reflects positively on cardiovascular health.

The great technological development in recent decades has contributed to the provision of many amenities, which has led to a decline in daily human physical activity, especially among women in Eastern societies, where they are less mobile compared to their counterparts in Western societies. This decrease in the level of physical activity, coupled with neglect of exercise, gradually leads to the accumulation of fat in multiple areas of the body, which increases the likelihood of obesity and associated health complications.(158:2)

Physical exertion has attracted the attention of scientists for centuries, studying how the body functions during physical activity and recording physiological changes, especially the positive effects of regular exercise. The training methods varied and differed according to their objectives, but each method has its own training philosophy based on accurate scientific principles that ensure its validity and stability when applied.(4:47)

Based on these data, this study aims to highlight the effect of combining aerobic exercises with weights with a balanced diet in improving levels of low-density lipoproteins (LDL) and high-density lipoproteins (HDL), and to study the effectiveness of this method in supporting the overall health of overweight women at this critical age.

1-2 Research problem :

Many overweight women in the age group of 35 to 40 years have health problems associated with high levels of bad cholesterol (LDL) and low good cholesterol (HDL), which increases the risk of cardiovascular disease. Despite the prevalence of exercise and diets, the extent to which combination exercise, such as weight aerobics, combined with a balanced diet, affects these lipoproteins and needs further

research and analysis. Therefore, the need arises A scientific study highlights the effectiveness of this method in improving cardiovascular health and reducing the health risks associated with obesity in this category of women.

1.3 Research Objectives:

1- Preparing a program for aerobic exercises with weights commensurate with the capabilities of the research sample.

2- Preparing a diet that suits the nature of the research sample

3. Identify the percentage of low-density lipoproteins (LDL) and the percentage of high-density lipoproteins (HDL) in the research sample

4- Identify the effect of aerobic exercises with weights accompanied by diet on the percentage of low-density lipoproteins (LDL) and the percentage of high-density lipoproteins (HDL) in the research sample.

1.4 Research hypothesis:

- There are statistically significant differences between the pre- and post-tests and in favor of the post-tests in the proportion of low-density lipoproteins (LDL) and the percentage of high-density lipoproteins (HDL) in the research sample

1.5 Research Areas:

Human field: a sample of women aged (40-35) years, numbering (5)

Time: 1/9/2024 to 21/11/2024

Spatial Domain: Hall F45

1.6 Definition of terms

High density lipoprotein: High Densitylipo - is good cholesterol or benign, which is one of the fatty compounds united by proteins and named so because it contains a large amount of protein and a smaller amount of fat and ranges in concentration in blood plasma -5535 milligrams% and consists of partial protein high fat of (55%) protein and (24%) (phospholipids and (17%) cholesterol and (4)%) triglycerides and works to transport cholesterol deposited on the walls of tissues to the blood and carry it to the liver for excretion. (115:7)

- Low-density lipoprotein (LDL): - These lipoproteins contain about (40-50%) of cholesterol, thus forming about two-thirds of the cholesterol in the blood and formed in the liver and its function is to transport cholesterol from the liver to cells and tissues The small size of the LDL molecule and the high concentration of

cholesterol in the blood made LDL molecules find their way to the arteries, forming fatty nodes directly related to the development of clogged arteries, so it is believed that the high concentration of LDL In the blood gives us the index of progression of the incidence of heart disease (217:1)

2- **Research methodology and field procedures :**

2.1 Research Methodology:

The researchers used the experimental method with one group to suit the research problem, as this approach can solve the problem and can best be understood through the results that the researcher can reach in a practical way.

2.2 Research sample:

The sample was randomly selected from overweight women aged (40-35) years, as in the language of the research sample (5) individuals and those who meet the conditions and the required tests were conducted for the research variables.

2.2.1 Homogeneity of the research sample :

Before starting the implementation of the aerobic exercise and diet program, the researchers conducted homogeneity between the members of the research sample in the variables (age, height, weight), where the chronological age of the members of the research sample was calculated to the nearest (year), and the height was calculated to the nearest (cm), and weight to the nearest (kg), as shown in Table (1)

Table (1)

Characteristics of the research sample

Torsion coefficient	±	Going to	Unit of measurement	Variables
0.60	2.3	167,6	poison	Length
0.09	4.15	83.54	kg	Weight
0.26	1.82	37.4	year	Chronological age

2-3 Devices and tools used in research:

2.3.1 Tools used in research:

Measuring weight (kg) and length (cm) Rest Meter Restameter.

mat

step terraces

Stopwatch (off)

Electronic Calculator

Weights - Stopwatch. Stop watch - Blood collection and storage tubes containing Vacuum tube edatanti-skin material.- Ice Box to store blood samples until they are transferred to the laboratory.- A set of sterile plastic syringes for a single use to draw a blood sample size (10 ml).
- Medical cotton - adhesive tapes (plaster) - topical disinfectant. Anti

2.4 Means of gathering information

Arab and foreign sources.

Internet Information Network

Interviews

Information collection list to record data for each laboratory.

3.5 Research Implementation Steps

The researchers worked on a set of steps to reach the required results of the research and were as follows:

1- The researchers prepared a special list for each member of the research sample in which all the information required for the search results is installed, as there are special fields to install the name, age, weight and height,

As well as special fields for high fat content and low density fat.

2- The researchers distributed a list of accurate information that includes the quantitative value of the substances allocated to be eaten by the research sample, which is within the diet.

2.5.1 Tests and measurements used in research:

The researchers chose a group of aerobic exercises with weights, through which they can know their effect on weight gain and high-intensity and low-intensity lipoproteins and the extent of the application of these tests and the difference after the end of the specified period for the application of exercises and diet, which shows the extent of tangible improvement as a result of those exercises and the diet prepared by the researchers and were as follows :

2.5.1.1 Measurement of low-density lipoproteins (LDLs)

2.5.1.2 Measurement of high-density lipoproteins (HDL)

2.5.2 Exploratory Experiment:

The researchers conducted the exploratory experiment on 22/8/2024 on (2) participants from the research community who were excluded from the basic experiment, and in this experiment the sample was defined on the physical tests that will be used and the sequence of their performance, and this experiment is a training for the work team, and during the experiment one training unit was applied with a time of (40) minutes, and the purpose of the experiment is to know the time required to conduct measurements, know the validity and possibility of the devices used and tools, know the capabilities of the assistant work team, and identify the obstacles that may be faced. The two researchers to avoid them.

2.6 Field research procedures:

2.6.1 Pre-tests

The tests and pre-measurements of the research sample were conducted in Hall (F45) on 28/8/2024 on Wednesday, where the researchers conducted the physical tests for the research, which included measuring the percentage of low-density and high-density lipoproteins in the research sample for each participant and placing them within the previously mentioned form

2-6-2: Aerobic exercise program weights: -

The two researchers prepared a training curriculum that includes aerobic exercises with weights and the training method used in the research is continuous and the intensity used is medium, as the training curriculum for aerobic exercises was implemented on 1/9/2024 until 21/11/2024 for a period of (12) weeks, each week includes three units - and the total units are (36) units and the time of one unit is (40) minutes, the researchers relied on the gradation in intensity.

2.6.3 Diet

A healthy and balanced diet helps reduce calorie consumption and promote a feeling of satiety, while aerobic exercise helps burn calories, build muscle and promote fitness. Therefore, combining a healthy diet with aerobic exercise is best to achieve effective results in weight loss and maintain overall health and the diet

must be balanced and contain all the nutrients that the body needs The diet was developed by a specialist doctor that fits the sample.

2.6.4 Post-tests

The post-tests were conducted under the same conditions as the pre-tests on 27/11/2024 on Wednesday, including physical tests and measuring the percentage of high-density and low-density lipoproteins and fixing them within the special form for each individual.

- Statistical methods

The researchers used the statistical bag program (SPSS), which performs the required statistical operations.

3- Presentation and discussion of the results:

3-1 Presentation and discussion of the results of the pre- and post-test of the research variables

4-1 Presentation and discussion of the results shows the values of the arithmetic means, standard deviations, calculated T value and the level of significance between the pre- and post-tests of the variables of the proportion of high-density lipoproteins and low-density lipoproteins for the research sample.

Table (2)

Statistical significance	Calculated* T value	Post-Test		Pre-test		Unit of measurement	Variables
		on	Going to	on	Going to		
Moral	7.51-	1.2	48.84	1.76	46.62	amalgam	High Density Lipoprotein |(HDL)
Moral	63.93	4.5	130.4	4.7	163	amalgam	Low-density lipoproteins (LDLs)

* Tabular value of (2.78) under the level of significance (0.05) and degree of freedom (4).

The above table shows the results of the research variables, where the arithmetic mean of high-density lipoprotein (HDL) for the pre-test was (46.62) with a standard deviation of (1.76), while the arithmetic mean of the post-test (48.84) with a standard deviation (1.2), the calculated value of (T) was (-7.51), which is greater than the tabular value of (T) of (2.78) under the level of significance (0.05) and degree of freedom (4).) This indicates significant differences in favor of the post-test.

As for low-density lipoproteins (LDL), the arithmetic mean of the pre-test was (**163) with a standard deviation (4.7**), while the arithmetic mean of the post-test (**130.4**) with a standard deviation **(4.5**), the calculated value of (T) was (63.93), which is greater than the tabular value (T) of (2.78) under the level of significance (0.05) and the degree of freedom (4).) This indicates significant differences in favor of the post-test.

Discussion of results

The researchers attribute with regard to high-density lipoproteins that the reason for the high percentage of HDL, which gave significant differences to the results of the research sample compared to the tribal values, to the effect of the sports program prepared by the researchers and the diet by controlling the calories eaten and according to the area of the body where the increase (HDL) In the research sample works on the reverse transfer of cholesterol from tissues to the liver to be eliminated, which reduces the risk of fat accumulation in the walls of the arteries and this is what was agreed upon (Wood) that HDL levels increase with the practice of physical aerobic activities through increased activity of the hepatic enzyme lipolysis Liapse, which is also seen through underweight (319:5)

The Gordon **study also reported** that increased HDL levels are associated with a lower risk of coronary heart disease, especially when accompanied by low LDL. (333:8)

Kokkion also agreed that aerobic training leads to a significant increase in HDL level and the results showed that moderate and low-intensity exercise is preferred. (307:10)

According to a study by Suleiman Mustafa, regular physical activity, especially aerobic exercise, leads to an increase in the concentration of HDL in the blood, as a result of improved lipid metabolism.(215:1)

As for low-density lipoproteins LDL in the blood, the emergence of significant values between the pre- and post-test is due to the effect of the sports

program as well as nutritional control represented in controlling the calories entering the body and avoiding eating foods that contain saturated fats, which are sourced from animals.

Ahmed Nasser **stated** that moderate-intensity aerobic exercise contributes to enhancing the activity of enzymes responsible for fat metabolism, thus reducing LDL cholesterol.(149:5)

These results were consistent with a study (Wood et al) which indicates that physical activity converts LDL cholesterol to beneficial HDL cholesterol and this leads to a reduction in the risk of heart disease (9: 1179).

High levels of cholesterol and low-density lipids (LDL) in the blood are one of the most prominent risk factors for cardiovascular disease. (3: 27)
It is better to follow a healthy diet permanently because this is important for the body in all health conditions (6:164).

4. Conclusions and recommendations:

4.1 Conclusions:

After presenting the results, the researchers reached a set of conclusions:

1- The use of aerobic exercises associated with weights for women aged (40-35) years helped reduce lipid levels in addition to increasing the beneficial high-density lipoprotein .

2- The use of aerobic exercises associated with weights for women aged (40-35) years helped reduce the proportion of low-density lipoproteins harmful.

4.2 Recommendations:

1- The need to identify the proportion of high-density lipoprotein for its importance in the health aspect and low-density proteins and to identify the factors that affect them .

2- The need to follow modern scientific methods in training and continuous follow-up of trainees by health centers and fitness centers

3- Follow this type of exercise with different ages and conduct blood lipid tests to maintain general health.

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1- Definition of the research:

1.1 Research Introduction and Importance:

Societies promote the advancement of their scientists who seek to build an educated generation and thinker capable of creativity, industry, trade and achievement of sports achievements and this depends on what they provide of science and ideas through methods and educational methods that enable him to build that generation in different age stages.

In the sports field, the process of building an athletic and educated generation capable of skill performance requires building the intellectual side that helps to understand and master skills according to models, opinions and ideas of scientists who have already worked in building this aspect, including the Fryer model that you see (PAtma Abu Ashour ، 2019) has allowed Model Farrer to the student to entertainas The behavior of the discovered scientist in research and reaching results, which made him a researcher and not just a recipient of information " (Fatima ،2019: 411(.

While he believes (Ramadan Without Mohammed, 2010) "The Fryer model provides educational experiences that increase the student's scientific thinking by presenting the scientific material in an exciting and unconventional way " (Ramadan , 2010, 84).

From this, we infer that this model helps the learner to practice and perform skills and build the right idea in its performance in various sports, including futsal, which is one of the difficult sports to practice due to the small field and the large number of players, which requires them to master basic skills, including offensive, ball control and achieving the best performance.

Hence the importance of research in raising the level of students' learning of basic offensive skills in futsal by building the intellectual side, which depends on the method of education used, which is the Fryer model for correct education and building the learner's thought after practice and performance and focusing on the correct and purposeful movements and mastery.

1-2 Research problem:

Basic offensive skills in futsal are one of the most difficult skills, which need an advanced educational level due to ball control, rapid movement, creating voids and other movements within a small area of the field, and for this it requires teaching them with a correct level of thinking that helps performance and application in the most difficult conditions.

Through the researcher's experience in motor learning and futsal and they found that the level of learning basic offensive skills in futsal does not rise to the correct level and weakness is clear in increasing the difficulty of performance in conditions similar to the conditions of the match, yes the student performs the skills, but their performance in the presence of a competitor or play we find the clear weakness in performance and for this it is necessary to education that enhances the intellectual side of him and raises thinking during performance and in the most difficult circumstances, and for this we find that the Fryer model One of the

appropriate educational models for education and applied in some mathematical research helped to speed up learning.

1.3 Research Objectives:

1- Identify the impact of Fryer's educational model for intellectual construction in learning some basic offensive skills in futsal for students.

2- Identifying the differences between the results of the pre- and post-tests and for the control and experimental groups in learning some basic offensive skills in futsal for students.

3- Identifying the differences in the results of the post-tests between the control and experimental groups in learning some basic offensive skills in futsal for students.

1-4 Research Hypotheses:

1- The existence of a positive impact of Fryer's educational model for intellectual construction in learning some basic offensive skills in futsal for students.

2- There are significant differences between the results of the pre- and post-tests and in favor of the post-tests for the control and experimental groups in learning some basic offensive skills in futsal for students.

3- There are significant differences in the results of the post-tests between the control and experimental groups and in favor of the experimental group in learning some basic offensive skills in futsal for students.

1-5 Research Areas:

1-5-1 human field: students of the fourth grade of middle school Shams known for outstanding in the district of Balad Rose in the province of Diyala.

1-5-2 Spatial area: the external courtyards in Shams Al-Ma'araf High School for outstanding students in the district of Balad Rose in Diyala province.

1.5.3 Temporal field : the period from 13/1/2025 to 18/3/2025 .

2- Research methodology and field procedures:

2-1 Research methodology: The researcher used the experimental method of importance in addressing the research problem, especially the method of two equal groups with pre-post testing.

2.2 Research community and sample:

The research community was determined by the fourth grade students at Shams Al-Ma'raf High School for outstanding students in Balad Rose district in Diyala Governorate , who numbered (90) students and were selected in a deliberate manner.

The research sample was selected their number (20) request They constitute a ratio of (22.22%) of the indigenous community, which in turn was divided into two groups (control and experimental) randomly so that each group (10) Players The research sample was homogeneous within each group and equivalence as in Table (1).

Table (1)

Shows the homogeneity and equivalence of the control and experimental groups in the research variables

Significance level	Calculated T value	Experimental Group			Control group			Tests and measurements used
		Coefficient of variation	on	Going to	Coefficient of variation	on	Going to	
Immoral	0.558	1.193	1.562	130.84	0.945	1.234	130.47	Length/cm
Immoral	0.212	2.225	0.969	43.543	1.999	0.869	43.451	Weight/kg
Immoral	0.357	4.222	0.745	17.642	3.732	0.654	17.524	Rolling/sec
Immoral	0.172	10.156	0.895	8.812	8.519	0.745	8.745	Scoring / Score
Immoral	0.434	15.526	0.674	4.341	13.336	0.562	4.214	Handling/Grade

Tabular value of (T) at degree of freedom (18) and level (0.05) = 1.74

2.3 Means of collecting information:

2.3.1 Means of data collection:

-Arab and foreign sources.

-Scientific observation.

3.3.2 Devices and tools used:

- Stopwatch.
- Futsal field.
- Futsal footballs.
- Medical scale.
- Tape measure length 2 meters.

-Duct.

- Whistle.

Sign number 4.

2.4 Field research procedures

2.4.1 Determine the variables of the research:

Due to the importance of the research problem and the need to address the most important basic offensive skills in futsal, the researchers, according to their experience, identified the research variables, namely:

1- Football scoring.

2- Rolling with football.

3- Football handling.

2.4.2 Tests used:

2.4.2.1 Ball Slalom Running Test (Firat, Haval, 2011: 215):

Purpose of the test: Measure the tester's ability to control the ball while running between signs.

Tools: futsal, 10 signs, stopwatch, pitch where (10) signs are placed in a straight line, the distance between one sign and another (1.5 meters) and the distance between the start and the first sign (2 meters).

Performance Description: The tester stands with the ball on the starting line, and when the start signal is given, the tester runs between the pillars "zigzag" until it reaches the last sign that rotates around it and returns to the starting line in the same way, the player has the right to use both feet.

Performance Conditions:

* The laboratory can start by passing the first sign from the right or left.
*The player's movement must not be interrupted during the test.
*Try again in case of a sign.

How to register:

* The time is calculated to the nearest second from the moment he is given the start signal until he returns to the starting line again.

2.4.2.2 Scoring test on the target divided by degrees from a distance (10 meters) (Wisam, 2007: 83):

Test name: Scoring test on the target divided by degrees from a distance (10 meters).

Objective of the test: Measuring scoring accuracy.

Tools used: (3) futsal ball, goal divided by ropes on (5) sections, whistle, sign, registration form.

Performance method: The tester stands at a distance of (10) meters from the target and when the signal is given, it scores.

Registration: **The** laboratory is given (3) attempts, as the grades are calculated according to the location.

2.4.2.3 Handling test (Qusay, 2008: 58):

Test name: Handling towards a small target (10 meters) away.

Objective of the test: Measurement of handling accuracy.

Tools: 5 footballs, a small goal of 60×60 cm, tape measure, adhesive.

Test procedure: draws the starting line with a length of (1 meter) and at a distance of (10 meters) from the small target and placed the five balls on the starting line and when hearing the start signal, the laboratory scores these balls towards the small target by taking the right place at the starting line.

Registration: The grade is calculated by the total scores obtained by the laboratory from the five ball handlers as follows:

1- (2 degrees) for each correct attempt to enter the small target.
2- (1 degree) if the ball touches the post or crossbar and does not enter the goal.
3-(Zero) in case the ball goes out of the small goal.
4- The degree limits are (zero - 10).

24.3 Exploratory experiment:

The researchers conducted the exploratory experiment on 13/1/2025 on Applied sample by applying the educational exercises of Skinner's theory In order to regulate the load of the exercises used and their application and to know the

extent of their difficulty in the sample and the required repetitions and the time it takes to apply them also Knowing the level of players for the purpose of unifying them in applying exercises at the same level.

2.5 Field experience:

2.5.1 Pre-tests: The pre-tests were conducted on 19/1/2025

2.5.2 Application of the Fryer model:

The researcher prepared exercises Educational For basic skills Offensive futsal And program them within educational units and according to Fryer's educational model, which was interested in building thought and enhancing the practical side in the application of the most difficult skills, and the model consists of From four parts, namely the definition of the concept, the advantages of the concept, Examples denoting the concept, Examples Non-functional concept. In light of this The program has been implemented During the educational units of the coach's curriculum during the teaching and development of offensive skills in football And for eight weeks within. The application of the program started on 20/1/2025 and its application ended on 17/3/2025.

3.5.3 Post-tests: The post-tests were conducted on 18/3/2025.

3.6 Statistical methods: using the SPSS system for statistical treatments and to find:

1-Arithmetic mean
2. Standard deviation
3. Coefficient of variation
4. Test (T) for correlated samples
5. Test (T) for independent samples
6. Percentage.

3- Presentation, analysis and discussion of results:

Table (2)

Shows the values of (T) before and after the control group in the offensive skill tests

Used futsal

Significance level	Calculated T value	Standard error	Post		Tribal		Skill tests
			on	Going to	on	Going to	
Moral	3.221	0.745	0.864	15.124	0.654	17.524	Rolling/sec
Moral	2.559	0.667	0.745	10.452	0.745	8.745	Scoring / Score

Moral	2.846	0.671	0.636	6.124	0.562	4.214	Handling/Grade

Tabular value of (T) at degree of freedom (9) and below (0.05) = 1.833

Table (3)

Shows the values of (T) before and after the experimental group in the offensive skill tests

Used futsal

Significance level	Calculated T value	Standard error	Post		Tribal		Skill tests
			on	Going to	on	Going to	
Moral	3.324	1.332	0.896	13.214	0.745	17.642	Rolling/sec
Moral	2.965	1.214	0.764	12.412	0.895	8.812	Scoring / Score
Moral	3.491	1.117	0.669	8.241	0.674	4.341	Handling/Grade

Tabular value of (T) at degree of freedom (9) and below (0.05) = 1.833

Table (4)

Shows the dimensional values of (T) between the control and experimental groups in skill tests

Offensive futsal used

Significance level	Calculated T value	Experimental Group		Control group		Skill tests
		on	Going to	on	Going to	
Moral	4.613	0.896	13.214	0.864	15.124	Rolling/sec
Moral	5.521	0.764	12.412	0.745	10.452	Scoring / Score
Moral	6.895	0.669	8.241	0.636	6.124	Handling/Grade

Tabular value of (T) at (18) and below (0.05) = 1.74

Through the observation of tables (2) and (3) show that there are significant differences between the results of the pre- and post-tests and for the control and experimental groups and in favor of the post-tests and this indicates that the two groups have learned basic offensive skills in futsal and this is normal using exercises and education gradually and following the appropriate educational method, which gives an indication of the success of learning and this is confirmed by (Zahir Hashem Ismail, 2002) in the success of this educational process "It is natural that there should be learning and improvement as long as the teacher follows the basic and correct steps of learning, teaching, correct performance, and focus on attempts and repetition until the consolidation and stability of performance" (Zahir, 2002: 102).

While Saad Mohsen (1996) believes that " the use of the regular educational program leads to help to learn and achieve achievement, provided that it is based on scientific foundations through the organization and programming of the education process and the use of appropriate and graded methods of difficulty and observation of individual differences as well as the use of influential teaching aids" (Saad, 1996: 98).

By observing Table (4), we found that there is learning and improvement of the basic offensive skills of futsal better for the experimental group as a result of the use and application of the conditions of the Fryer model and the improvement of the intellectual aspect, and for this (Omar Nouri Abbas, 2020) believes that "the Fryer model is one of the basic behaviors that are based under the influence of different educational roof that lead to learners obtaining and providing them with the best skills, as the Fryer model that It depends on continuous repetition commensurate with physical and skill abilities, noting individual differences in learning, that following educational methods and methods in an organized scientific manner works to involve the learner and highlight his role to implement the requirements of the game, as learning the skill and the ability to perform it is one of the basic conditions for mastering it" (Omar, 2020: 214).

The steps of the Fryer model are also important and essential in learning and teaching, as he sees (Chalabi, 2016) "It is a model that contains many learning-educational procedures through several stages: teaching the concept, measuring the extent of its acquisition, and focusing on determining the course of learning and teaching processes for scientific concepts" (Chalabi, 2016: 446).

The researcher was also interested in the qualitative and exciting educational exercises to raise the level of thinking and activate his senses in learning, and for this he believes (Farid Abu Zeina 2003) "The diversity in educational methods is necessary to suit the learning methods preferred by the student and occupy the largest possible number of different senses they have" (Fareed, 2003: 132).

(Alaa Taha Ahmed Ibrahim 2022) confirms that "the education process is affected by the methods and methods of learning followed by the teacher, as new educational methods and strategies have emerged that help transfer the center of activity from the teacher to the learner, the method that depends on the basis of experimentation and application moves faster and easier than the one in which the learner is taught independent sets of knowledge that he does not know the benefits of learning" (Alaa, 2022: 28).

5. Conclusions and recommendations:

5.1 Conclusions:

1- Fryer's educational model for intellectual construction achieved educational goals by raising the level of learning some basic offensive skills in futsal for students.

2- Controllingthe basic behaviors that are based under the influence of different educational roof that lead to learners obtaining and providing them with the best skills, and this depends on the correct educational model such as Fryer.

5.2 Recommendations:

1- Adopting the Fryer educational model for intellectual construction because it achieved the educational goals by raising the level of learning some basic offensive skills in futsal for students.

2- The need to controlthe basic behaviors that are based under the influence of different educational roof that lead to learners obtaining and providing them with the best skills, and this depends on the correct educational model such as Fryer.

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Appendix (1)
Form (from educational units)
Week: First Scorer of the educational unit: learning basic skills
Offensive futsal
Module: 1

Observations	Duplicate	Details & Exercises	Time	Unit Sections
Conditions of the Fryer model for education and building the right thinking	84×2 4×2 4×2 5×2	- Feeling the ball and making a straight rolling and then between the signs and after rolling and dribbling in front of a defender. - Handling with the colleague back and forth is handling in the presence of a defender. -Scoring on areas specified by the target. -Roll and then handle with the colleague and receive and score.	30 minutes	Main section: 1. Educational 2-Applied