

THE EFFECT OF TABATA-STYLE EXERCISES ON DEVELOPING SOME OF THE PHYSICAL AND SKILL ABILITIES OF AL-KARKH CLUB FUTSAL PLAYERS

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Abstract

Preparing Tabata-style exercises for futsal football players, identifying the effect of Tabata-style exercises on the physical abilities of futsal football players, identifying the effect of Tabata-style exercises on the skills of futsal football players, identifying the research community with club players under the age of (20) years for futsal football in Baghdad. The research sample was chosen from Al-Karkh Club players, which numbered (10) players from Al-Karkh Club, if the one-group experimental design with a pre- and post-test was used. The sample was chosen intentionally from Al-Karkh Club players, and (4) players were taken to conduct the experiment. The percentage of the sample was 100% of the club's players. Conclusions: Tabata-style exercises effectively affected the physical variables of the research and developed the players' level. The exercises used by the researcher had an indirect effect on developing the skills investigated due to the improvement. Their skill level in the post-tests showed a willingness and positive enthusiasm to use the Tabat method because it showed tangible results on the ground. The use of modern and diverse training methods adds a kind of excitement and attracts the attention of the players to practice them, and this was clearly evident during the duration of the experiment. The researcher also recommends: The researcher recommends working with the Tabat method because it works to reduce the number of hours required to raise the level of a certain ability among players. The researcher recommends using this method during competition periods because it works to benefit from the speed of development of physical and skill abilities as a final result.

Keywords: Tabata, physical, futsal skills.

Introduction

The last decade of time is the peak of human development in all scientific fields, including medical, administrative, strategic, engineering, and even sports. We see many modern records that have been broken and are still being broken, despite the fact that these numbers are very difficult. This is due to the level of training that the athletes work on under the supervision of their coaches. .

The Tabata method is one of the modern methods that has emerged and contributed greatly to achieving tangible global results. It is a method that relies on training with high intensity followed by a fairly long rest. This training has given results similar to the results of continuous training and for more units during one week compared to the number of units used without

training methods. This prompts us to adopt it in our research and experiment with it on our research sample and solve the research problem through this method, which the team in futsal needs for the competitive stage in preparation. Because futsal players play the game in a field with a somewhat narrow space, the physical effort becomes dynamic. It is continuous and makes it necessary to focus on specific abilities of the players to raise their readiness on the field during sports competitions and tournaments and to develop their physical abilities specific to the game of futsal football, as the game of futsal football has its own requirements that meet the specificity of the game in terms of speed of movement and constant change in directions inside the field. . Physical abilities are the basis on which the body relies to move and progress in all aspects of life, and strength, speed, endurance, and other abilities are the basis for developing all complex and skillful abilities. Therefore, it was necessary to develop these abilities, given that the clubs have a lot to offer during the season, including what has been introduced currently, which is the season. Professionals in Iraq, the current levels need to be developed significantly, and these levels need to use modern methods that raise their level in a relatively short time, making it possible to change reality within a short period and in a more beneficial way. Also, the link between skill abilities and physical abilities is a given and therefore it was It is supposed to develop appropriate methods and select abilities and skills that are compatible with each other to develop two areas at the same time. Thus, we can ensure that the group develops its physical and skill aspects in a harmonious manner.

The importance of the research lies in using the Tabata training method to develop some of the physical and skill abilities of futsal players for Al-Karkh Sports Club.

Research problem

Training is a sea of methods and methods of training, and we can benefit from each type according to need and specialization. Because some methods are better than others and some have proven successful in other countries, we can copy the experience and work on it in our country. Also, the training process for futsal football requires appropriate methods that are compatible with... Skills for the game. We see that the Iraqi leagues have become more developed than before, and the evidence of this is the professional league. The current training needs a qualitative leap through which we ensure that the problems and delays in the development of Iraqi futsal football are addressed. Therefore, the researcher decided to take this method as a basic variable for the training process. Al-Karkh Sports Club.

Research objectives

1. Preparing tab-style exercises for football players for the Al-Karkh Futsal Club.
2. Identify the effect of Tabata-style exercises on the physical abilities of Al-Karkh Futsal Club football players.
3. Identify the effect of tabbed-style exercises on skills for football players of the Al-Karkh Futsal Club.

Research hypothesis

There are statistically significant differences between the pre-test and post-test for the experimental group, in favor of the post-test.

Research areas

Human Field: Al-Karkh Futsal Club players for the 2023-2024 training season.

Time period: from 6/4/2023 until 10/25/2023.

Spatial field: The closed stadium of Al-Karkh Sports Club.

Search procedures

Research methodology and field procedures:

The researcher used the experimental method because it suits the nature of the problem.

The research community and its sample

The research population was determined by club players under the age of (20) years of futsal football in Baghdad, and the research sample was selected from Al-Karkh Club players, amounting to (10) players from Al-Karkh Club, if the experimental design with one group with a pre-test was used. Al-Baadi, the sample was chosen intentionally from Al-Karkh Club players, and (4) players were taken in order to conduct the exploratory experiment on them. The percentage of the sample was (100%) of the club's players.

For the purpose of ensuring the homogeneity of the sample members and the validity of the normal distribution among its members, the researcher used the arithmetic mean, standard deviation, and skewness coefficient to homogenize the results of the field survey in measurements (biological age, training age, weight, and height)

Table (2-1) (The homogeneity of the research sample is shown by the skewness coefficient in the variables of height, weight, chronological age, and training age

Torsion coefficient	standard deviation	Mediator	Arithmetic mean	measuring unit	Variables
0.830	0.660	176	5.617	poison	height
-0.758	0.456	64	63.6	kg	the weight
0.824	.0976	19	.817	year	Chronological age
0.763	.0948	4	4.5	year	Training age

The results indicated that all variables fall within the limits of the normalization of the curve, and this indicates that the sample distribution is limited and that there is a homogeneity in the variables of the event, because one of the properties of the typical normal curve is that the skewness coefficient is confined between the two values (+1) (Al-Sayyid, 1978, pages 455-456 (

Devices, tools and methods used in research

Means used in collecting information

Arab and foreign sources and references, questionnaires to survey the opinions of experts and specialists, and personal interviews

Questionnaires for recording and transcribing data and information.

Devices and tools used in the research

Futsal field with accessories, (5) futsal footballs, calculator with tablets, rubber bands and ropes, (6) towels, medical scale, (1) Sony camera, (2) electronic stopwatch or device. A mobile phone that contains a counting timer, a 2 kg medicine ball, and 10 sticks.

Field research procedures

Determine the capabilities and skills used in the research

After reviewing the sources concerned with abilities and skills, the researcher chose a number of variables (physical abilities and skills) for futsal, and presented these abilities and skills to the experts and specialists, to seek their opinions about nominating what they deem appropriate of the special and valid physical abilities variables. Under study, the researcher used the percentage law to determine the percentage of agreement, and took a percentage . (75%)

Determine the tests for the research

After reviewing the sources concerned with tests and measurement, the researcher chose a number of variables and tests related to the physical and skill variables of futsal football, which have a high degree of honesty, consistency and objectivity. These tests were presented to the experts and specialists, to seek their opinions about nominating what they deem appropriate. Variables and special and valid tests to measure the variables under study. The researcher used the percentage law to determine the percentage of agreement, and took a percentage of (75%) or more.

Exploratory experiments

The first exploratory trial of Tabata-style exercises used in the research:

The researcher conducted the exploratory experiment on 6/26/2023, corresponding to Monday.

The second exploratory test experiment used in the research:

The researcher conducted the exploratory experiment on 7/1/2023, corresponding to Saturday.

Pretests

The researcher conducted the pre-tests for two days. The first day was for physical ability tests and the second day was for skill tests, on 7/9/2023, Sunday, in the sports hall of the Karkh Sports Club at exactly 3 p.m. The results were recorded according to The test conditions and specifications are in lists prepared by the researcher. The researcher took into account the conditions related to the tests in terms of time, place, tools and devices used, method of implementation, and the supporting work team, in order to provide them in the post-tests that will be applied later.

The main experiment

It is the basic experience that the researcher applies to solve or arrive at methods that help solve the tagged research problem.

The researcher applied the exercises that were prepared to the players on 7/13/2028, corresponding to Saturday, in the hall of the Al-Karkh Club, as the number of units reached (24) units, with (3) weekly units on days (Saturday, Monday, Wednesday) and for a period Two months (8) weeks, which is a sufficient period for the effect of the training to appear on the research group. The number of exercises used in one unit reached (5) various exercises, with a total of (25) exercises, and the duration of the units ranged between (20-35 minutes), as the researcher applied The exercises were in the main part of the training unit as shown in Appendix (1). The exercises were implemented with the help of the assistant team and under the supervision of the researcher, and the training units were completed on (9/13/2023) on Saturday.

Description of the exercises used

The exercises varied in number and type according to the muscles involved in the performance and what is appropriate to the skills investigated, as the work in them focused on strengthening the work of the muscles and the physical abilities involved in the performance of futsal players. Among these exercises are concerned with developing physical abilities (explosive strength of the legs, transitional speed, general endurance). (The exercises prepared by the researcher are easy to perform as they are applied on the ground or through appropriate training methods.

Exercise application:

The components of the exercise load were prepared according to references and sources and were concluded as follows:

- Repetitions of (5 or 10) repetitions, depending on the type of exercise.
- Groups of (2) groups.
- Rest between sets (180 seconds)
- It took time for each unit (20-35 minutes)

The intensity was determined according to the goal of each training unit and the difficulty of the exercises selected in that unit, and it ranged between

. (80-95%)

The load ripple (1:1) – (1:2) was applied.

Posttests

The researcher conducted the post-tests on the research sample on September 17, 2023, which coincided with Sunday. He conducted the test for the selected abilities and skills and recorded the data. The researcher followed the same procedures in the pre-tests.

Statistical methods

The researcher used the Statistical Portfolio for Theoretical Sciences (SPSS) (version 23v) to obtain all the research results.

Presentation, analysis and discussion of the results:

Presentation of the test results (pre and post) for the experimental group in physical abilities tests and their analysis:

Table (1) Arithmetic means, standard deviations, the value of the difference of means and deviations, and the value of (T) calculated for the pre-tests and The dimensionality of the variables is the physical capabilities of the experimental group

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indication	Calculated T value	Experimental group Posttest		Experimental group test-pre		lonliness Measurement	Variables T
		p ±	s	p ±	s		
		moral	3.597	3.093	45.166		
moral	4.582	0.265	4.595	0.259	4.643	Tha	the speed Transitional
moral	2.517	10.667	49.382	10,061	54.132	Tha	General endurance

- At a significance level (0.05) and a degree of freedom (9)

Discussion of the research results of the physical abilities tests of the research group

By looking at Table (3-1), we notice the significance of the research results for the physical abilities tests between the pre-test and the post-tests, and in favor of the post-tests. The researcher attributes these results to the use of the Tabata method, in which the researcher prepared a group of various exercises that are appropriate to the physical abilities. Used for skills in the game of futsal, as the attention to the training units for the exercises used has a great impact on the fact that these exercises focus the work on the muscle units involved in the performance, and the distinctive quality of the exercises in implementation contributes greatly to focusing their effect on those muscles, as the use of Tab A method, which focuses its work on strengthening the muscles involved in performance and engaging a larger amount of muscles in one training unit. Also, the selected physical abilities have been carefully prepared for the overall appropriate exercises because they are important in developing the skills of futsal players, and the primary concern was Physical capabilities, including explosive strength, because muscular strength is the basis for building the body as a whole and the most important factor in improving and developing skills, as this is consistent with the opinion of (Musker) (Metal, 1986, p. 37), as he says that any training curriculum must include an element of muscular strength. I also agreed with DeCarlo’s opinion “that muscular strength is the first factor in developing skill performance” (Decarlo, 1963, p. 37)

The researcher's interest is also in employing physical abilities that are compatible with the selected skills for the purpose of developing the level of players' performance to the maximum extent, because the connection that exists between skills and abilities can be exploited in a positive way. The result of work on developing physical abilities will be the benefit to the skills because they are directly affected by the development of physical abilities. Abilities, as confirmed by (Mahmoud Al-Shatti and others) “that there is a close connection between motor

skills and the physical characteristic that the player acquires in the training process” (Al-Shatti, 1990, p. 42(

In developing explosive power, the researcher relied on a diverse training curriculum. This ability is one of the important physical requirements in football, which appears in many situations and during play, such as kicking the ball, jumping, and headbutting, in which force is exerted to overcome resistance and is accompanied by a high level of speed, and this strength has exercises. Through it, it can be developed, and this is what the researcher worked to prepare through compound exercises that focus on developing explosive power, such as jumping exercises, whether with or without ball, and other exercises, with a variable in intensity, loads, and rest. “The logical distributions contained in the training load must be changed in order in order for them to be effective.” “With the players” (Yassin, 1985, p. 390(

Presentation of the test results (pre- and post-test) for the experimental group in the skills tests and their analysis:

Table (2) Arithmetic means, standard deviations, the value of the difference of means and deviations, and the value of (T) calculated for the pre- and post-tests of skills for the research group

indication	Calculated T value	Experimental group Posttest		Experimental -group pre test		lonliness Measurement	Variables T
		p ±	s	p ±	s		
moral	4.751	1.446	9.967	1.104	7.966	repetition	Handling
moral	.3271	0.928	.01342	0.899	10.898	second	Rolling
moral	4.116	0.802	.4236	0.949	3.833	repetition	Scoring

- At a significance level (0.05) and with a degree of freedom (9)

Discussing the results of the pre- and post-tests of the research group’s skills

By looking at Table (3-2), we notice the significance of the tests and in favor of the post-test of the investigated skills. The researcher attributes these results to the use of exercises that the researcher took great care in selecting and preparing those exercises in a way that is commensurate with the level of the research sample and the nature of the game, and that working on physical abilities It has contributed to the development of skill abilities, as working on it has the characteristics that make it possible to work on it with a large number of diverse exercises. The researcher selected what is compatible with the sample level of motor abilities. Care is taken in choosing exercises that achieve the goal, contributing to the players reaching the required level of performance through... The specified period of time for training” (Al-Mukhtar, 1998, p. 17(

The training process and good planning of the training curriculum using the Tabata method have indirectly affected the skill performance of the futsal players, meaning that the outcome of the training work on physical abilities has paid off and developed the players' skill skills in general. This is confirmed by Aisha Muhammad Al-Fateh, 2019) which indicated that "good planning of an exercise program and codification of training loads in a scientific and appropriate manner resulted in physical improvement that was reflected in the level of skill performance" (Al-Fateh, 2019, p. 155). The researcher's interest was also in the time duration of the units and their number during one week and the duration of the training curriculum. Which was developed by the researcher, since the training process is a long-term process, and if we need to work on developing a specific ability or skill, we need a period of no less than eight weeks for changes to appear among the trainees. Therefore, the researcher sought to take enough time to suit the player's ability to determine that The duration and number of units came as a result of applying the Tabata method, which relies primarily on increasing intensity, increasing the rest period, and reducing the number of weekly units, because this "training process is a constructive process that works to develop physical and motor abilities and develop them to achieve the best performance" (Hassan, 1983, p. 16(

Conclusions and recommendations

Conclusions

1. Tabata-style exercises have effectively affected the physical variables of the study and developed the level of the players.
2. The exercises used by the researcher had an indirect effect on developing the skills of the subjects due to the improvement of their skill level in the post-tests.
3. The players showed a willingness and positive enthusiasm to use the Tabata method because it has shown tangible results on the ground.
4. The use of modern and diverse training methods adds a kind of excitement and attracts the attention of the players to practice on them, and this was clearly evident during the duration of the experiment.

Recommendations

Based on the research results reached by the researcher, the researcher recommends the following recommendations:

1. The researcher recommends working with the Tabata method because it reduces the number of hours required to raise the level of a certain ability among players.
2. The researcher recommends using this method during periods of competition because it works to benefit from the rapid development of physical and skill capabilities as a final result.
3. The researcher recommends diversifying the training work and making physical training directly connected with skill training to reduce time.
4. Conduct similar research for different groups and samples and apply it to open football and for both genders.

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