The effect of defensive sweeping on the results of matches for junior soccer players

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Introduction & research problem

The tactical preparation in football combines all other types of preparation, whether physical, skillful, voluntary or mental, which is what Peter Treadwell (1995) referred to as the important part of the football match, which gives a specific meaning to the nature of the team's performance, in addition to the ideas and strategies that make each individual action a logical action. (7: 62)

In this regard, Gerhard Hamsen, Jorg Daniel (1997) indicate that offensive tactical performance is one of the outcomes of good tactical preparation, and thus depends to a large extent on the strategy of movement of individuals and their integration into the collective performance of the team. (3: 19)

Since coaches are prone to making subjective judgments and may not be able to remember events reliably, they increasingly resort to analyzing matches as a means of improving the training process for players and the team. (5: 509)

Match analysis is commonly used in many sports and is seen as a vital process that enables coaches to collect objective information that can be used to provide feedback on performance. (2:76)

As Carling C, Bloomfield J, Nelsen L, Reilly, T (2008) points out, the main goal of match analysis is to identify the team's strengths and weaknesses, thus enabling it to develop further and the latter must be worked on. The coach's analysis of the opposing team's performance also allows him to use the data to identify ways to address strengths and exploit weaknesses. (1:839)

Attacking tactics are part of a comprehensive strategy and play an important role in football. Many studies have focused on analyzing offensive action in the match, because scoring goals is the main goal of the game, and shooting on goal and scoring goals are the main elements that determine the success or failure of a football team. It is necessary to shoot on goal and score in order to win a football match. (4:296)

Football is not a random collection of individual skills, but rather a set of strategies based on the principles of space and movement. Teams deal with space and time in order to score and prevent goals. Understanding how to control these two factors or variables is essential to a correct understanding of the game. The purpose of offensive strategies is to create space and time that contribute to finding scoring opportunities, while defensive strategies aim to limit spaces and the specified time period in the hope of thwarting the opposing team's attack and taking possession of the ball. (9:156, 157)

Although there is agreement in performance regarding the concept that a team is more than the sum of its parts, researchers have focused on many factors that explain why some teams are more successful than others. Some believe that individual abilities and knowledge among group members, while others believe that group identification, awareness, and leadership in work are behind this success (8: 261) (73: 333) (6: 218).

Researchers believe that football as an integrated system consists of several elements that affect and influence each other, which in turn leads to the team's success or technical failure. The players' performance in the match is nothing but a true translation of the level they have reached in developing their physical, skillful, tactical, psychological, and mental abilities through training. The tactical preparation and the final outcome or product that shows what has been accomplished in all other types of preparations, and the players move in the attack constantly throughout the match in a complex and intertwined form with the aim of scoring goals and winning the match, and this requires complete harmony in their

movements through good planning for these movements with their commitment to perfect and effective implementation. Evaluating and analyzing performance during matches, especially tactical performance, is one of the most important and difficult duties of the coach to measure and assess the players' condition from a tactical perspective and the team's effectiveness in implementing game plans, in an attempt to develop the movement and technical performance of soccer players, as many innovative and creative aspects can be seen in the players' performance, whether this performance is individual or collective, especially if it is dominated by an offensive nature. Within the framework of what researchers have been able to see from previous studies in team games in general and soccer in particular, they found that it is necessary to develop a set of defensive combing exercises in the form of a training program that may contribute to developing the offensive tactical performance of juniors in football, which is represented in some indicators or distinctive connotations of this performance such as match results, which represents a new scientific addition to the offensive tactical aspect in soccer.

Research objective

The research aims to design a training program using defensive sweeping exercises on the results of matches for junior football players.

Research hypotheses

In light of the research objective, the researchers set the following hypotheses:

1-There are statistically significant differences between the averages of the pre- and post-measurements scores of the control group in the results of matches and in favor of the post-measurement

2-There are statistically significant differences between the averages of the pre- and post-measurements scores of the experimental group in the results of matches and in favor of the post-measurement

3-There are statistically significant differences between the averages of the post-measurements scores of the control and experimental groups in the results of matches and in favor of the experimental group

Research procedures

To achieve the research objectives, the researchers followed the following steps:

Research methodology

To achieve the research objectives and verify its hypotheses, the researchers used the experimental method, using the experimental design for two groups, one is experimental and the other is control, following the pre- and post-measurement for them

Research community and sample: The research community is represented by the junior teams registered in the Minya region for football under (19) years for the training season 2022 AD / 2023 AD. The sample was chosen intentionally, as the junior team of the Minya Sports Club was chosen for the experimental sample, and the junior team of the Samalut Youth Center was chosen for the control sample. A number of (4) matches were chosen for each of the Minya Sports Club and Samalut Youth Center teams to analyze the level of offensive tactical performance.

Data collection methods

First: Offensive performance indicators form under study

The form aims to obtain data or indicators to measure the team's offensive performance through (the size of reaching the goal (number of attacks), finishing on goal (shots) and then the results of the matches.

The analysis form was presented to a number of soccer experts from the university faculty members, consisting of (8) experts, and they all agreed on the suitability of the offensive performance indicators under study.

Third: The proposed defensive combing program

1-Program objective

The program aims to develop offensive performance indicators for football players

2-Foundations for developing the training program

-Taking into account the scientific foundations related to the training load

-Taking into account the correct timing for repeating the load

Taking into account the principle of undulation during the program in -stages and weeks

-Flexibility when planning and implementing the training program

-Taking into account security and safety factors

3-Program implementation plan

To plan the training program, the researchers identified the following

Training load cycle during the weeks of the preparation period (2: 1)

Training load cycle during the week (3:1)

Daily training load

Maximum load from 120: 130 minutes

High load from 100: 110 minutes

Medium load from 80: 90 minutes

Weekly training load

Maximum load 460 minutes per week

High load 420 minutes per week

Medium load 380 minutes per week

Total program time

-Maximum load = 4 x 460 minutes = 1840 minutes

-High load = 4 x 420 minutes = 1680 minutes

-Medium load = 4 x 380 minutes = 1520 minutes

-Total program time: 1520 + 1680 + 1840 = 5040 minutes

Research procedure steps

Pre-measurement

The researchers conducted the pre-measurement matches as follows:

Experimental group: Days 13, 18, 22, 27 / 6 / 2023 AD, with (4) matches with the Nasser Al-Fikriya, Beni Mazar, Matai, Mallawi teams at the Minya Sports Club stadium

Control group: Days 17, 23, 28 / 6 / 2023 AD, 3 / 7 / 2023 AD, with (4) matches with the Nasser Al-Fikriya, Beni Mazar, Matai, Mallawi teams at the Samalut Youth Center stadium.

Implementation of the proposed program

The researchers applied the proposed program to the experimental group during the period from 10 / 7 / 2023 AD to 29 / 9 / 2023 AD

Post-measurement

After the end of the specified period of the training program, the researchers conducted the post-measurement matches with the same teams and under the same conditions that were followed in the pre-measurement as follows

Experimental group: Days 3, 9, 14, 19 / 10 / 2023 AD, with (4) matches with the Nasser Al-Fikriya, Beni Mazar, Matai, Mallawi teams at the Minya Sports Club stadium

Control group: Days 7, 12, 17, 21 / 10 / 2023 AD, with (4) matches with the Nasser Al-Fikriya, Beni Mazar, Matai, Mallawi teams at the Samalut Youth Center stadium

Statistical method used

The researchers used the following statistical methods to suit the nature of the research, which are

Correlation coefficient

Mann-Whitney non-barometric test

Wilcoxon non-barometric test

Percentage improvement rate

The results discussion:

Table (1)

Significance of statistical differences between the pre- and post-measurement ranks of the control group in the results of the matches

(n = 4)

Indicators	Pre measurement			Post measurement			Z value
	Arithmetic mean	Average ranks	Sum of ranks	Arithmetic mean	Average ranks	Sum of ranks	
Matches results	1.67	٠0.0	00.0	2.50	2.50	10	2.24

The value of (Z) at the level of (0.05) = 1.96 * significant at the level of (0.05).

Table (1) indicates the following:

There are statistically significant differences between the average ranks of the pre- and post-measurement of the control group in the results of the matches, in favor of the post-measurement.

Table (2)

Percentage of improvement between the pre- and post-measurement of the control group in the results of the matches N=4

Indicators	Pre measurement average	Post measurement average	Improvement percentage
Matches results	1.67	2.50	49.70

Table (2) shows the following: The percentage of improvement between the pre- and post-measurement of the control group under study in the results of the matches reached (49.70%), which indicates the positivity of the traditional program in developing the results of the matches for the control sample.

Table (3)

The significance of statistical differences between the pre- and post-measurement ranks of the experimental group in the results of the matches (n = 4)

Indicators	Pre measurement			Post measurement			Z value
	Arithmetic mean	Average ranks	Sum of ranks	Arithmetic mean	Average ranks	Sum of ranks	
Matches results	1.83	٠0.0	00.0	2.50	3.33	10	2.25

(Value of (Z) at level (0.05) = 1.96 * significant at level (0.05

It is clear from Table (3) the followin

There are statistically significant differences between the average ranks of the pre- and post-measurement of the experimental group in the results of the matches in favor of the post-measurement

Table (4)

Percentage of improvement between the pre- and post-measurement of the experimental group in the results of the matches (n = 4)

indicators	Pre measurement average	Post measurement average	Improvement percentage
Matches results	1.83	3.33	81.97%

Table (4) shows the following

The percentage of improvement between the pre- and post-measurement of the experimental group under study in the results of the matches reached (81.97%), which indicates the positivity of the defensive sweeping program in developing the results of the matches for the experimental sample

Table (5)

Significance of statistical differences between the ranks of the two post-measurements of the control and experimental groups in the results of the matches (n = 8)

Indicators	Control group			Experimental group			Z value
	Arithmetic mean	Average ranks	Sum of ranks	Arithmetic mean	Average ranks	Sum of ranks	
Matches results	2.50	2.75	11.00	3.33	6.25	25.00	2.08

The value of (Z) at the level of (0.05) = 1.96 * significant at the level of (0.05)

It is clear from Table (5) the following:

- There are statistically significant differences between the average ranks of the two post-measurements of the control and experimental groups in the results of the matches in favor of the experimental group, which indicates the positivity of the defensive sweeping program in the results of the matches for the experimental sample

Interpretation & discussion of the results

According to the arrangement of the results and through the research hypotheses and to achieve its objectives, the researchers will present, discuss and interpret the results as follows:

It is clear from Table (1) and (2) that the pre-measurement average of the control group in the match results variable was 1.67, while the post-measurement average was 2.50, achieving an improvement rate of 49.70%

The researchers attribute these differences to the length of the preparation period, which extended to (12) twelve weeks, with (6) six training units per week, and what it included in general constructive exercises in the general preparation stage and special constructive exercises in the special preparation stage, then competition exercises in the late preparation period "the preparation stage for matches", then positive rest exercises, which are given between different types of exercises for the purpose of gradually reducing the number of heartbeats to a certain number, and may be in the form of games or flexibility exercises or agility and balance.

Also, the regularity of the players in attending training without interruption, as regular training helps the internal organs of the body to adapt to any physical load, which leads to an increase in the player's functional capacity. The researchers also believe that the improvement of the physical variables under study is due to performing exercises that develop these variables, taking into account not separating general and special preparation exercises during the preparation period, in addition to giving a set of different exercises, whether with or without a ball, which led to developing and improving the physical variables of the control group. Thus, the first hypothesis of the research was achieved, which states that "there are statistically significant differences between the averages of the pre- and post-measurement scores of the control group in the results of the matches, in favor of the post-measurement".

As is clear from Table (3), (4), the pre-measurement average of the experimental group in the variable of match results was 1.83, while the post-measurement average was 3.33, achieving an improvement rate of 81.97%.

The researchers attribute this to the proposed training program using defensive sweeping exercises, where the players were directed during training to overcome the numerical superiority of the defenders by disrupting the defense by having one player run towards the player in possession of the ball and the other player run away from his teammate who has the ball. At the same time, this player works to expand the attacking front, which breaks up the defensive block of the opposing team in the front midfield area, which limits proper reception of the ball or receiving under pressure from the opponent. Thus the failure of the tactical performance of the opposing team, which contributed to this progress through the players' awareness of the positions of the teammates and the location of the ball to find an empty space behind the defenders.

The researchers believe that the defensive commitment of the opposing team imposes on the players to find solutions to create a free space in the front half of the field area in order to develop and end the attack. This is evident through the attacker moving without the ball to pull one of the defenders with him, thus leaving a free space behind him that enables one

of his teammates to exploit that space or another teammate moving across the field and at the same time creating the appropriate depth to receive the ball from the player in possession of the ball. Thus, the second hypothesis of the research has been achieved, which states that "there are statistically significant differences between the averages of the pre- and post-measurement scores of the experimental group in the results of the matches, in favor of the post-measurement.

Table (5) shows that the post-measurement average of the control group in the match results variable was 2.50, while the post-measurement average of the experimental group was 3.33, achieving an improvement rate of 33.20% in favor of the experimental group

The researchers attribute this progress in the post-measurements of the experimental group over the control group and in the indicators of offensive performance under study to the use of various exercises that depend on moving without the ball to the teammate who has the ball so that he has more than one real opportunity to pass without losing the ball.

The positive progress in finishing on goal is due to the fact that the proposed training program using defensive sweeping exercises provided the players with more than one available opportunity to score on goal, and the shooting performance under pressure from the opponent and in conditions similar to what happens in the match and physical contact with other players were among the factors that helped advance the level and number of shots on goal

This offensive structure also led to an increase in the number of goals scored, as the program used relied on the assistance of the defense players in the attack, which resulted in a numerical increase in the attack, as well as changing the speed of play with controlled passes, in addition to direct and fast play with the development of the ability to observe, which had an effective role in scoring goals. Thus, the third hypothesis of the research was achieved, which states that "there are statistically significant differences between the averages of the post-measurement scores of the control and experimental groups in the results of the matches, in favor of the experimental group.

Conclusions

1-The defensive sweeping program has a positive effect on improving the results of matches for junior football players

2-The defensive sweeping program contributed significantly to improve the results of matches for junior soccer players as a result of the organized and standardized physical effort that the young players were exposed to in the proposed defensive sweeping program

3-There are statistically significant differences between the average ranks of the pre- and post-measurement of the control group in the results of matches and in favor of the post-measurement

4-There are statistically significant differences between the average ranks of the pre- and post-measurement of the experimental group in the results of matches and in favor of the post-measurement

5-There are statistically significant differences between the average ranks of the post-measurements of the control and experimental groups in the results of matches and in favor of the experimental group, which indicates the positivity of the defensive sweeping program in the results of matches for the experimental sample.

Recommendations

1-Guide by the defensive sweeping program because of its ability to develop the results of matches for junior soccer players

2-invite the officials to use the proposed defensive sweeping program for junior soccer players and generalize it within clubs, youth centers and football academies

3-The necessity of paying attention to developing all offensive tactical rules and principles, especially in the early age stages of junior soccer players

4-Paying attention to conducting research and studies that use standardized defensive sweeping programs for different ages and categories due to their clear impact on improving physical, tactical and skillful variables.

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One of the most important results reached by the researchers is that the defensive sweeping program has a positive effect on improving the results of matches for junior soccer players. One of the most important recommendations was to be guided by the defensive sweeping program because of its ability to develop the results of matches for junior soccer players.

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