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## Effect of biorhythm on some basic skills of basketball players

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### Abstract

The sports development taking place in various fields is only the outcome of research, studies and scientific efforts that contributed to the progress of sports achievement in a wide way at all sports levels, and the importance of the research is to identify the impact of biorhythm courses on the level of performance of the basic skills of basketball players, and what is the most appropriate time to conduct training units, and the research aims to identify the relationship between biorhythm courses with the psychological and basic skills of basketball players, the researchers used the descriptive approach in a method Comparative causality, the research sample was represented by the players of Kirkuk Basketball Club participating in the First Division League, which numbered (14) players, the researchers concluded that the biorhythm courses of all kinds affect the level of performance of the basic skills of basketball players.

**Keywords:** Biorhythm, basic skills, basketball

### Introduction

The sports development taking place in various fields is only the outcome of research, studies and scientific efforts that contributed to the progress of sports achievement and wide progress at all sports levels, and the world has witnessed in the second half of the last century a lot of development in science and various sports knowledge, including tennis, which is one of the popular games widespread and has global importance and is characterized by multiple skills Mastery depends on the possession of players for a sufficient amount of physical fitness and movement that helps in the success of skill setting.

The biorhythm is the ripples that occur at the level of the state of the various body systems between high and low, where the human body cannot remain working with all the energy of its organs and a high level of physiological efficiency for long periods of time, as the situation changes between high and low in all body functions as a result of the level of the biorhythm cycle, and that every person from birth to death has three cycles of biorhythm, namely:

1. Physical rhythm course- 23 days.
2. Emotional cycle - 28 days.
3. Mental cycle - 33 day.

Basketball is one of the most widespread sports in the world, and it is one of the games that have taken a distinct and prominent position at the level of team games, and this is why specialists in the field of the game have been developing it by raising the levels of players in terms of physical, skill, tactical, psychological, functional and educational, which was positively reflected in the development of playing methods, plans and laws that contributed to giving aesthetic performance and more fun through mastering skills and reaching the high level of the game, which earned it an advanced rank in The list of the most popular games among many sports.

The skill in basketball depends on the consistency between the movements of the hands and the eye, and the basketball player depends on his intelligence in predicting the direction and path of the ball, and on his physical fitness in the speed of access to the ball, and then on the speed of his intuition in directing the ball to a suitable location to the colleague on the court,

and for these reasons' basketball was characterized, as a game that raises the physical and mental fitness of the player, and obliges him to self-control and vision, with the ability to control, good behavior, and speed of reactions.

The importance of the research is to identify the impact of biorhythm courses on the level of performance of the basic skills of basketball players, and what is the most appropriate time to conduct training units, and to identify the pattern of the biorhythm of each player to take into account the individuality of training, as well as to identify the relationship between the health efficiency of the players and the levels of their courses in the biorhythm in order to take this into account in terms of timing in training and degrees of training load and between their selection at the ideal time in competitions.

One of the conditions for achieving the sports format for basketball players and achieving achievement is to ensure the player's readiness in terms of health efficiency, physical, skill, tactical abilities and even the consequent mental abilities, so the merits of these requirements must be taken into account and noted and that the basketball player is subject to a health and training system that corresponds to his preparations and abilities to work on the comprehensive development of all tactical and technical skills that need special physical qualities on which the sports result is built during the competition, and studies have proven that The best results were recorded when the dates of the competitions agreed with the dates of the positive results of the vital rhythm, since the game of basketball is one of the games that are affected by the player's condition and readiness, so any decrease in his health or technical indicators leads to a decline in the level of his performance, so it is necessary to pay attention to these timings and take advantage.

### Research Methodology

The nature of the problem at hand is what determines the methodology, so the researchers used the descriptive approach in a comparative causal method for its suitability to the nature and problem of the research. The researcher identified the research community, which are the players of Kirkuk basketball clubs for the sports season (2024-2025), while the research sample was deliberately selected, which was represented by the players of Kirkuk Basketball Club participating in the first division League, numbering (14) players.

In order to determine the variables that the researcher relies on in completing the requirements of his research, the researchers conducted a survey of the most important sources and references related to the subject of the research, which resulted in the preparation of some tests related to skill abilities as well as determining the levels of biorhythm. After taking information from the sample members on the date of birth (day, month, year), the information was entered into the biorhythm program that determines the three curves (physical, psychological, mental) as we obtain the relative values of the curve for the days adopted by the researchers, which are the day of birth, the day of the summit, the day of the landing.

### Research Tests

- 1. Three steps throw Test: Purpose of the test:** Evaluation of the level of correction. Devices and tools: basketball, basketball goal. How to perform the test:

The player performs from the middle of the basketball court towards the goal to perform the triple and then shoot. Test conditions: The laboratory grants (10) attempts and requires the performance of the peaceful legally: the ball that enters the goal after committing a legal error in the performance of the peaceful is not counted among the goals recorded in the ten attempts. Registration: Each successful attempt at shooting is calculated as one point, the highest points obtained by the laboratory are (10) points.

- 2. Free throw Test: Test Name:** High dribbling for a distance of (20) m: Purpose of the test: Measuring the skill of high dribbling. Tools used: basketball court, electronic stopwatch, legal (2) basketball, tape measure, chalk, whistle to give the start signal. Actions: Draw two parallel lines with a distance of (20) m representing the start and end lines, let it be (a, b). Performance description: The player takes standby mode from high start behind the start line (A) drawn on the ground with the ball, giving the start signal to the player who runs with the high pitch of the controlling arm as fast as possible until he crosses the finish line (B). Test instructions: - The player takes the correct position (standby mode from high start) with the ball. - We end the test by having the player cross the finish line (B) as quickly as possible. - Each player has only one attempt. - The number recorded by the player is announced on the next player to ensure the competition factor. Test Management: - Recorder: calls on names start signal first and records results second - Timer: Timing as well as standing at the finish line (B). Calculation of scores: - Each player's score.
- 3. Directional Changeover Test: Test Name:** dribbling by changing direction between (6) signs for a distance of (13.50) m round trip. Purpose of the test: Measuring the speed of the drum by changing direction. Necessary tools: basketball court, electronic stopwatch, basketball (2) legal, chalk for determining the dimensions of the signs, adhesive tape length (1.50 m) as a starting line, whistle to give the start signal. Procedures: The dimensions of the six signs from the starting line are drawn as follows: Placing an adhesive tape of length (1.50) m, then two points are determined at its ends, let it be (A, B). The distance between the first sign at the starting line is determined by a distance of (1.50) m. The distance between the first and second - second, third, third and fourth, fourth, fifth, fifth and sixth signs is determined by a distance of (2.40) m. The signs are fixed on the ground in a straight line and perpendicular to the starting line. Performance Description: - The player and the ball take the standby position from a high start behind the starting line at point A. - Give the start signal to the player who is running and changing the direction between the signs and continues according to the shape shown until he crosses the starting line with the ball at point (B). Educated.

### Exploratory experiment

An exploratory experiment is a preliminary experimental study carried out by the researcher on a small sample before doing his research in order to choose research methods and tools." Therefore, the researchers conducted an exploratory experiment on Sunday, 17/11/2024 on a group of (3) players from the Salahaddin University team players who are not

from the research sample, and the aim of the experiment was to identify the difficulties as well as to identify the efficiency of the work team, the accuracy of implementation of the tests, the time it takes, and to ensure the validity of the devices.

### Main experiment

The main experiment represented by the tests that were applied by the researchers and the assistant team on the research sample represented by the players of Kirkuk

Basketball Club was conducted on 20/11/2024.

### Statistical Methods

The researchers used the statistical bag (SPSS), to obtain the results of the study through the following statistical variables: Percentage. Arithmetic mean. Coefficient of variation. Test (T) for independent samples.

### Results

Presentation and analysis of the results of basic skills tests in basketball:

**Table 1:** shows the arithmetic means and standard deviations of the research variables

Variables	measurement Unit	Mean	Standard deviation	Calculated (T) value	Tabular (v) value	Sig. level
High dribble	second	12.02	3.11	0.916	0.811	Sig.
Dribble by changing direction	second	14.15	1.08	0.894		Sig.
Three steps throw	degree	8.30	1.16	0.827		Sig.

Table (1) shows the arithmetic means and standard deviations of the basic skills tests, where the arithmetic mean of the high dribble test reached (12.02) and the standard deviation (3.11), and the arithmetic mean of the dribble test by changing direction (14.15) and the standard deviation (1.08), while the arithmetic mean of the peaceful shot test was (8.30) and the standard deviation (1.16). The results show a significant correlation between the basic skills and the level of vital rhythm, where the table shows that the calculated value of (T) for all basic skills is greater than the value of (T) tabular which indicates the significance of the correlation.

### Discussion

Through the presentation and analysis of the results of basic skills tests in basketball, the results showed a significant correlation between the basic skills tests and the level of biorhythm in basketball, and the researchers attribute the reason for this to the fact that the level of positive biorhythm positively affects the basic skills referred to, as the basic skills in basketball are not without the availability of various and overlapping factors that lead to their success, as the player "must be trained in a way Good for their performance and in different conditions and close to the conditions of competition and must have field experience, boldness, self-confidence and the ability to take responsibility.

The player's occurrence in the positive curve of the biorhythm helps in the appearance of the player at a level commensurate with his physical and skill abilities, which leads to the development of the level of achievement depending on the physical and skill condition of the player as it is associated with a great link between performance and functional indicators that must be at their best.

The basic skills when combined for the players have a good impact in basketball, where there are several factors, where skill performance is the most effective weapon, especially because of the characterization of the defense of contiguity, harassment and continuous attempts to distract the ball from the player and must be accompanied by skill performance deception, speed and accuracy.

The skill of peaceful shooting is one of the basic skills in the game of basketball and some classify it as the first types of correction for its ease and the need for players to perform it at all times of the game, as "This type of shooting is performed in every case the player moves quickly in the direction of the goal after making a dialogue with the ball or

receiving the ball from a colleague, and the player must when performing this skill to take into account the legality of its steps so as not to fall into the error of running with the ball.

### Conclusion

Through this current study, the researchers concluded the following:

1. The biorhythm courses of all kinds positively affect the development of the level of basic skills of basketball players.
2. Biorhythm cycles better when combined affect the performance of basic skills of basketball players.

### Recommendations

Researchers recommend the following:

1. Coaches and sports workers should follow the levels of biorhythm of players and take it into account when preparing training curricula.
2. Take into account the individuality of training when planning training curricula.
3. Rely on players who are at the best level of dynamic rhythm when choosing the starting line-up for matches.
4. Conducting studies covering all types of sports and skills.

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