

Some physical and physiological variables relationship accurately skill transmitter in tennis

EMAD KADHIM THAJEEL

College of Physical Education and Sports Science
University of Dhi Qar, Iraq

Abstract:

The research aims to identify the levels of certain physical and physiological and accuracy variables skill transmitter with the respondents and also identify the nature of the correlation of some physical and physiological variables accurately transmit skill in tennis, and included search procedures search field and the nature of the methodology used appropriate to resolve the problem and the sample and the methods and tools, as well as statistical methods having to do research as well as physiological and physical and skill tests and then has the data processing and display, analysis and discussion researcher concluded that high blood pressure systolic lead to an acceleration in heart rate, as also concluded that the increase in the number of breaths Ins and Outs lead to a high percentage of oxygen in blood and thus lead to a decrease in systolic blood pressure and this is what Sporting enjoyed by all others, and they concluded the researcher also focus on the strength of the strike while sending a lead to a loss of accuracy. The researcher recommends the practice of sports activities that lead to increased blood amount paid per strike, which will be reflected in lower heart rate and Batalli drop in blood pressure systolic and this will reduce the burden on the heart and blood vessels also recommends researcher exercise sport Almtaulh which lead to an increase in the sizes of pulmonary capacity causing an increase the proportion of oxygen in the blood and Batalli decrease in systolic blood pressure, and this will reduce the burden on the heart and blood vessels and also recommended a researcher on the coaches not to focus on developing explosive power because they will lose the transmitter accuracy in tennis element.

Key words: physical and physiological variables, skill transmitter, tennis

1. Identification search

1.1 Introduction and the importance of research

Career physical preparation of the body organs is of great importance in the access to the best sporting achievements, it is the levels reached by many of the world champions a fantasy after the progress that has occurred in science-related field sports, especially the science of sports training and physiology training, despite the progress science in the field of training, we have to conduct a lot of research and studies to reach many of the scientific facts in order to uncover the best ways to develop both the effectiveness of sporting events optimally.

As some physiological studies applied relied on sports medical devices techniques to uncover adaptive physiological responses that enjoyed by the athletes level of giving that scientific results which lead to help coach and competent athlete to stand on the functional capabilities possessed by the sports and the level of responses made by the functional devices to the athlete by the training and aerobics (1), and in the sport of tennis, which is heavily dependent on the performance is fast and streamlined mastering locomotor be required to reach a good level, according to their nature in terms of speed, accuracy and strength in performance and under singles competition, including requiring the player focused towards the desired goal in performing the many skills of offensive including transmitter accuracy needed when applied to the interest in more than one area in order to be accessible to the achievement requirements, and this is achieved with the help of different means, including modern medical devices as well as some physical and physiological characteristics of the players through the analysis and job descriptions precise responses to physiological and

physical extent of their relationship and technical skill of the player side tennis.

The importance of research in the study of some of the physical and physiological variables and to identify the level of these variables and see how the level of transmission skill and therefore know the kind of relationship which lead to help develop the capacity of trainers and help them to improve their standards of players and athletes and find out the functional and physical condition during the competition and follow up on various resultant effects.

2-1 Research problem

that the exercise of one of the sports activity and continue for a certain period lead to the emergence of a lot of functional and physical changes in the various vital organs of the body, and these variables have temporarily accompanies the exercise activity, including what will be permanently acquired by the body and become functional qualities characteristic, as well as some physical changes sports movements which have a close relationship with the skills of the game of tennis, and thus researcher found that there is a weakness in the transmission performance, especially in the character of precision and the loss of many points as a result of erroneous transmissions so Arti researcher studying physical and physiological variables for tennis players can be formulated research problem the following question: Is there a a link to some of the physical and physiological variables accurately transmit relationship

2.1.1 Research Objectives:

1. Identify the levels of certain physical and physiological variables among respondents.
- 2 .Identify the level of skill in tennis transmission accuracy the research sample.
- 3 .Identify the nature of the correlation of some physical and physiological variables accurately transmit skill in tennis.

4- Hypotheses:

.1 The existence of levels for some physical and physiological variables the research sample.

.2 The presence of correlation statistically significant differences between some of the physical and physiological variables accurately transmit skill in tennis.

5-1 Areas of research:

1.5.1human sphere: players optic Union tennis club for the academic year 2015-2016.

1.5.2temporal sphere: From 10/13/2015 to 01/24/2016.

1.5.3spatial area: Tennis Courts at the Sheraton Hotel and physiological laboratory in the Faculty of Physical Education / University of Basra.

2. Field research methodology and procedures:

2.1Research Methodology:

Researcher used descriptive approach in a manner appropriate to the survey as a method to solve the problem of the research and achieve its objectives known as descriptive approach that describe and explain what is the object (2)

2.2The research sample:

The sample is defined as the model represents another aspect of the units originally society (3)

The researcher chose the research community way deliberate illusion players optic Union Club's (13) players for the sports season in 2016 was the research sample was selected purposively has been selected 10 players who have been nominated before, as the sample is formed from the original community the proportion of 76.9%. Has been conducting homogeneity of the sample individuals in some of the variables, as shown in Table(1)

Table (1) A statement of the homogeneity of the sample

The variables	measuring unit	Arithmetic mean	standard deviation	The coefficient of variation
Age	Year	24	1.0	4.16
the weight	Kg	71.77	8.13	11.32
Length	cm	175.33	4.76	2.71
Old training	Year	3	0.86	28.6
Pulse rate	Blow / min	73.25	3.45	4.7
Systolic pressure rate	Mlm.zi bak	11.37	0.91	8.003
Diastolic pressure rate	Mlm.zi bak	7.900	0.53	6.7
Respiratory rate	Times / min	15.62	1.68	10.75

Methods, tools and devices used in the search:

1. References Arab and foreign sources.
2. rope
3. tapes.
4. tape measure.
5. tennis balls number 24.
6. tennis rackets number 13.
7. imaging camera type (Sony).
8. stopwatch.
9. computer type (DELL).
10. measuring device pressure Japanese-made number two.
11. tests and measurements of physical and physiological and footwork.

2-5 field experiment procedures:

2.5.1 Measuring functional variables:

1. Measuring heart rate per minute:

The heart rate measurement by fumbling at the radial artery (radial artery) is located on the front face of the brutal

(anterolateral aspect) of the wrist directly at the base of the finger thumb method of fumbling by the introduction of both middle finger (middle) and index finger (the index finger) in Sense pulse thumb is not used because it has a pulse felt could lead to falling into errors when used in sensor pulse, has been measured pulse duration (10 sec), then multiplying by (6 times) so as to get the pulse rate per minute (4).

2. Measuring blood pressure rate:

The indirect method to measure blood pressure are the most common because it is easy and inexpensive, requiring a stethoscope and a composite measure of the pressure from the index of the pressure (mercury or unusual) and strap inflatable wraps around the arm above the elbow and are the measurement process where Screened sitting on a comfortable chair and a hands outstretched on the table in the level of the heart site with a note to be stop to the top, Rabat surrounds the inflatable on the upper part of the arm to be measured and above the elbow with a mind to be part of the inflatable into the arm, then a stethoscope on the arm of President artery near the inner side placed of the facility and then it is inflated Lace up broken blood circulation and then begins to allow air to go out on a regular basis and slow and when they hear the first sound of the pulse is read record because it shows the systolic pressure and then continue to listen to the pulse so is recorded disappears reading because they indicate the diastolic pressure (5).

2-4. Measuring respiration rate:

To perform this test lab sits on a chair and gives instructions indicate that the test to measure heart rate and is based test maintenance of wrist laboratory was calculates your heart rate but instead calculates the number of times that brings out the chest during inspiration and the reason for the lack of news the laboratory to the content of the test is the possibility of

voluntary control over the rate of breathing, which may go up or down if it has control Alardaeh and the laboratory conditions in a timely manner (6).

2.5.2 Measuring physical variables:

1. Test explosive power (arms testing) (7):

- Test Name: Medical test throw football talents) 3 kg (hands.
- Objective: to measure the explosive power of the arms and shoulders), upper extremities.
- Tools used: Medical ball weighing 3 kg, a tape measure or marker to determine the distance function.
- Description of performance: the laboratory take a standing position opened behind the line of chucking the decree on the ground and holding a medical ball in front of the chest, and when you give the go-ahead the laboratory throwing medical ball forward and far away as possible, so the work of arch the back with the return of medical ball back by the arms and then throw it to Imam of overhead and far away as possible and take into account the speed in performance.

- Test Instructions:

Not for the laboratory may be touching the line drawn on the floor or area in front of the line.

It shall not lift feet off the ground during the performance.

Each laboratory two attempts recorded Ovdilhma.

Announce the figure recorded by each laboratory to laboratory followed to ensure the competition factor.

Management test:

- Recorder: The first call on the names and record the results through the appointment of a place

The fall of the ball.

- Arbitrator: to give the start signal with a note performance health.

- Recording method: record of the laboratory and its parts Surface distance from the inner edge of the line

Chuckling even closer to the impact of the fall of the Medical ball on the ground from the point of this line.

2. Test distinctive strengths speed:

- Test Name: Front invoked) Hnao (8).

- The goal of the test: measuring the characteristic strengths speed of two arms.

- Tools used: stopwatch and registration form and the flat) space (and a whistle.

- Performance description:

Take a laboratory situation right and be the subject of front invoked.

The laboratory bend the arms and chest Mayorma so touching the ground each time.

The laboratory where the bend your arms full and Mayorma.

The number on the following laboratory declares to ensure competition factor.

When referring to the start of the performance and continue non-stop until the end to hear the signal.

- Test Instructions:

Lab can assign your knees on the ground.

Performance period of 50 seconds.

Given one attempt for the laboratory.

- Management test:

- Recorder: The call on the testers and the results recorded) the number of iterations (.

- Arbitrator: to give the start signal and observe the performance of the proper form and give a signal
End.

- Recording method: The registration of iterations performed by each laboratory proper form

During the 50 seconds) test time).

2-5-3 skill tests:

2-5-2-1 test transmissions skill: (White tested for accuracy in transmission) (9):

Actions :-

- Planning the tennis court.
- Proves rope diameter of 4/1 inch of its parties in Ghaemi network of top so that the distance between him and the network (4) feet, and the distance between him and the ground (7) feet, and notes that the provisions be taut and perfectly parallel to the network.
- Numbers 6-5-4-3-2-1 a values refer to the dimensions areas as follows:

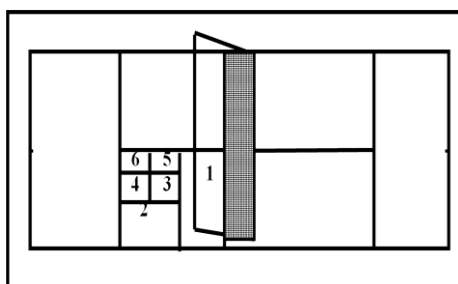
No. (1) refers to the rectangular 15 x 13.5 feet.

Number (2) refers to a rectangle 6 x 10.5 feet.

3,4,5,6 figures indicate the dimensions of rectangles, each 1.5 x 3 feet.

- Show the same numbers 6-5-4-3-2-1 to be allocated to each of the regions where the ball down the stairs.
- Is to explain the test and his business model before applying it to the players.
- Never do Bahme test application for at least (10 minutes in the tennis court).

**Figure (1) illustrates the calendar grades and how to conduct tests
White transmission**



- Then the player stands behind the base and then beat 10 consecutive balls on the targets set in the semi-pitch the other

hand, provided that pass all the balls between the network and the cord, where the player is trying to get the highest score so that the ball fall in the region's No. 6.

Account Owners: -

- Balls that touch the network or cord are not accounted for and returned to try again.
- The ball with the top rope and calculated attempt to give zero even if landed in any of the goals.
- Each correct shot counted her class value in the region where and shown in Figure fall later.
- The player score is the sum of points obtained from ten attempts.

2-6 Home experience:

The researcher conducted a major experiment to test the physiological dated 08/11/2015 and approved on Sunday at rest and that took place in the laboratory of the private Physiology, Faculty of Physical Education and Sport Sciences / University of Basra, while for tests physical the researcher commissioned on 11.11.2015 and approved on Wednesday and skill tests took place on 11/15/2015 and approved on Sunday and on the golf College of Physical Education and Sports Science at the University of Basra.

3. The display, analyze and discuss the results:

3-1 show the arithmetic mean and standard deviation values for the variables search

**Table (2) shows the circles, standard deviations
Find all of the variables**

The variables	Mean	Std. Deviation	N
Systolic pressure rate	11.3700	.00816	10
Pulse rate	73.2500	.81650	10
Respiratory rate	15.6200	.81650	10
Diastolic pressure rate	7.9000	.87560	10
Explosive power	18.8000	.78881	10
Skill transmitter	30.2000	2.25093	10
Distinctive strengths speed	29.2000	4.18463	10

3-2 Presentation and discussion of the correlation matrix with each other

Table (3) It shows the link to the research variables with each other Matrix

		Systolic pressure rate	Pulse rate	Respiratory rate	Diastolic pressure rate	Explosive power	Transmission skill	Distinctive strengths speed
Systolic pressure rate	Pearson Correlation	1	1.000**	-1.000-**	.155	.345	-.363-	.130
	Sig. (2-tailed)		.000	.000	.668	.329	.303	.720
	N	10	10	10	10	10	10	10
Pulse rate	Pearson Correlation	1.000**	1	-1.000-**	.155	.345	-.363-	.130
	Sig. (2-tailed)	.000		.000	.668	.329	.303	.720
	N	10	10	10	10	10	10	10
Respiratory rate	Pearson Correlation	-1.000-**	-1.000-**	1	-.155-	-.345-	.363	-.130-
	Sig. (2-tailed)	.000	.000		.668	.329	.303	.720
	N	10	10	10	10	10	10	10
Diastolic pressure rate	Pearson Correlation	.155	.155	-.155-	1	.611	-.271-	.613
	Sig. (2-tailed)	.668	.668	.668		.060	.450	.060
	N	10	10	10	10	10	10	10
Explosive power	Pearson Correlation	.345	.345	-.345-	.611	1	-.851-**	.215
	Sig. (2-tailed)	.329	.329	.329	.060		.002	.550
	N	10	10	10	10	10	10	10
Transmission skill	Pearson Correlation	-.363-	-.363-	.363	-.271-	-.851-**	1	.255
	Sig. (2-tailed)	.303	.303	.303	.450	.002		.477
	N	10	10	10	10	10	10	10
Distinctive strengths speed [§]	Pearson Correlation	.130	.130	-.130-	.613	.215	.255	1
	Sig. (2-tailed)	.720	.720	.720	.060	.550	.477	
	N	10	10	10	10	10	10	10

Through the table (3) is clear and there is a correlation positive significant between blood pressure systolic variable (s.bp) and a variable pulse rate (hr) and is a negative correlation between each of the variable breathing and variable blood pressure systolic rate, variable accuracy transmitter and variable explosive power, and explains Researcher relationship to the importance of these variables in determining heart efficiency and a rotation in athletes where we see that the blood pressure of arterial systolic increases with increased heart rate and this is what he sees (Muhammad Hassan) that the amount of blood driven from the heart depends on the strength of hit the left

ventricle of the heart and heart rate (10) It also explains the researcher negative relationship to the variable of breath and variable blood pressure arterial systolic that the high rate of breathing increases the amount of oxygen in blood and Batalli reflected on the pressure off the walls of the blood vessels to decline and this is proof that sporting activities reduces the burden on the heart and blood vessel walls muscle, the negative relationship to the variable transmitter variable accuracy and explosive power of the arms researcher sees that increase the power of the blow to the arm in a moment transmitter lead to a loss of accuracy transmitter.

4. Conclusions and recommendations:

4.1 Conclusions:

Through the presentation of the results in a table (3) researcher concluded that high blood pressure systolic lead to an acceleration in heart rate, as also concluded that the increase in the number of breaths Ins and Outs lead to a high percentage of oxygen in blood and thus lead to a decrease in blood systolic pressure this is what Sporting enjoyed by all others, and they concluded the researcher also focus on the strength of the strike while sending a lead to a loss of accuracy.

4.2 Recommendations: The researcher recommends the practice of sports activities that lead to increased blood amount paid per strike, which will be reflected in lower heart rate and Batalli drop in blood pressure systolic and this will reduce the burden on the heart and blood vessels also recommends researcher exercise sport Almtaulh which lead to an increase in the sizes of pulmonary capacity causing increasing the proportion of oxygen in the blood and Batalli drop in blood pressure systolic and this will reduce the burden on the heart and blood vessels and also recommended a researcher on the

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Emad Kadhim Thajeel- **Some physical and physiological variables relationship accurately skill transmitter in tennis**

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