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VARIABLES OF NEUROLINGUISTIC PROGRAMMING, PSYCHOLOGICAL ALIENATION, AND PSYCHOLOGICAL HESITATION AS A FUNCTION OF PREDICTING THE PERFORMANCE OF THE FOREHAND AND BACKHAND GROUNDSTROKES OF TENNIS PLAYERS

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ABSTRACT

The problem of the research is evident in answering the following questions: Is it possible to predict the front and rear ground strikes through variables (neuro-linguistic programming, psychological alienation, and psychological hesitation)? The goal of the research is to identify the contribution rates of the variables (neurolinguistic programming, psychological alienation, and psychological hesitation) in the front and back ground strikes. Background for tennis players. The researchers used the descriptive approach to suit the nature of the problem and formed a research population of advanced tennis players, numbering (76) players representing clubs in the central and southern regions. The researchers concluded that it is possible to predict, through the independent psychological variables (neurolinguistic programming, alienation, and hesitation) the dependent variables, the two frontal turfs. The background of tennis players depends on the importance of each variable.

Keywords: Neuro-linguistic programming - psychological alienation - psychological hesitation - front and back groundstrokes in tennis.

INTRODUCTION

Introduction to the research and its importance

The world has witnessed rapid development in all fields, including the sports field. It has received broad and clear development in all its sciences, especially sports psychology, because of its great importance in competitions through the use of programs and preparing players, according to the importance of psychological variables in order to reach high results.

Many researchers have worked in many studies to identify the most important relationships between psychological variables and skills for various games by constructing measures for their variables and answering these measures through the use of pen and paper by marking each paragraph of the measures according to its importance to the testers, through which many obstacles are overcome. To obtain accurate results that are adequate for the purpose in order to take them into consideration when necessary to prepare and prepare the players psychologically.

According to the researcher's knowledge, this study is the first of its kind in the field of sports psychology for tennis players by using more than one psychological variable, reaching three

psychological variables, and finding their relationship and percentage of their contribution to the most important skills of the game, which are the forehand and the backhand, which are considered the basis of the game, since this game is what it is. It is nothing but forehand and backhand strikes, and many specialists and researchers have worked to make great efforts to develop individual sports, especially games that lead to high levels of achievement, and each of the sports has its own correlations, whether psychological, physical, or skill, and the game of tennis is the same. Among these games, there is no doubt that this game has become widespread at the present time and has received many interests. With this spread and expansion, its psychological, physical, motor, skill, and tactical requirements have increased, and whenever there is weakness in one of these aspects, its effect is clear and negative on the other aspects, so it is natural. This game should have its general form, and each of its categories should have its own form, to identify and measure the most important psychological variables of this game, because these variables are of great importance in enhancing the psychological aspect of the players and thus integrating performance, especially when there is equality in the performance of competing players in other variables such as physical, skill, and tactical. . Many researchers have dealt with the topics of measuring psychological variables, but the importance of this study is evident in that it works to use and measure psychological variables in the most important basic skills of the game of tennis, which are considered the basis of the game of tennis and depend on it for the player to reach advanced skills and find the contribution rates of these variables to these skills and what works to guide specialists in these skills. The game takes into account these variables and thus obtains more accurate results in order to reach high levels and achieve achievements.

RESEARCH PROBLEM

The problem is revealed to answer the following questions:

What are the degrees of the variables (neurolinguistic programming, psychological alienation, and psychological indecision) and the degrees of the front and back groundstrokes possessed by tennis players?

What is the relationship of the variables (neurolinguistic programming, psychological alienation, and psychological hesitation) in the forehand and backhand groundstrokes of tennis players?

Is it possible to predict the front and back ground strikes using (neurolinguistic programming, psychological alienation, and psychological hesitation)?

Research objectives: The research aims to identify:

Degrees of the variables (neurolinguistic programming, psychological alienation, and psychological hesitation) and degrees of the forehand and backhand groundstrokes possessed by tennis players.

The relationship between the variables (neurolinguistic programming, psychological alienation, and psychological hesitation) and the forehand and backhand groundstrokes of tennis players.

Percentage of contribution of variables (neurolinguistic programming, psychological alienation, and psychological hesitation) to the forehand and backhand ground strokes of tennis players?

Research hypotheses:

The researcher assumes the following:

There is a statistically significant correlation with the variables (neural linguistic programming, psychological alienation, and psychological hesitation) with the front and back ground strokes of tennis players.

It is possible to predict the front and back ground strikes using variables (neurolinguistic programming, psychological alienation, and psychological hesitation).

Research areas:

Human field: Advanced tennis players for the year 2022 AD

Spatial field: stadiums and club halls.

Time range: the period from 9/1/2022 to 12/1/2022.

Research Methodology: A descriptive approach was used to suit the nature of the problem.

Research community:

Two researchers used a comprehensive inventory method to define the research community, which was represented by tennis players applying for clubs in the central and southern regions, as their number reached (10) clubs representing (10) governorates, and the number of players reached (76) players, as shown in Table (1) below. :

Table (1) shows the number of clubs and players for each club and the name of the governorate

	Club name	Governorate name	Players number
1	Diwaniyah	Diwaniyah	7
2	Najaf	Najaf	5
3	Karbala	Karbala	10
4	Babylon	Babylon	9
5	Al-kut	Wasit	6
6	Samawah	Muthanna	7
7	Amarah	Maysan	6
8	Basra	Basra	7
9	Nasiriyah	Dhi Qar	6
10	Hunting	Baghdad	13
Total players number			76

Means of collecting information: (Arabic and foreign sources and references, testing and measurement, a questionnaire to survey the opinions of experts and specialists to demonstrate the validity of the measures (neurolinguistic programming, alienation and rigidity, and psychological frequency).

Tools and devices used: (regular tennis court, 4 tennis rackets, 48 tennis balls, 15-meter rope, 2 4-foot poles, adhesive tapes, magic pens, assistant work team, portable calculator (Lenovo) Standards forms (3).

Determining the measures of neuro-linguistic programming, psychological alienation, and psychological hesitation (the initial version of the measures): The researchers worked on presenting the measures of neuro-linguistic programming by the researchers "Alaa Zuhair Mustafa and Jassim Muhammad Radhi," a psychological alienation measure by the researcher "Al-Kubaisi," and a psychological hesitation measure by the researcher "Firas Hassan Abdel Hussein." Specialists in psychology should pay attention to their opinions regarding the scales, the clarity of the items, and the method of wording in order to make modifications as needed and know the validity of each scale. After that, measures of psychological variables were determined (a final version of the scales) by transcribing the data for the three scales, where all the items for the three scales were approved and not modified. Any paragraph or addition of any paragraph by the experts. Therefore, there was no change between the initial and final versions of the three scales (neurolinguistic programming, psychological alienation, psychological hesitation), as the neurolinguistic programming scale was designed from five alternatives and the psychological alienation scale was designed from three alternatives. A psychological frequency scale was designed with four alternatives. The data was transcribed and the positive and negative items were taken into account.

Determine the most important skill tests: The White test was relied upon for the forehand and backhand groundstrokes for its suitability for advanced tennis players.

Exploratory experiment: For the purpose of benefiting from the experiment directly, the researchers conducted two exploratory experiments. The first exploratory experiment took place on 9/4/2022 at nine in the morning on four players from Al-Diwaniyah Club. Skill tests and psychological measures were applied during the experiment, and the aim of it was (to ascertain the place of Conducting the tests and the extent of its suitability for implementing them, knowing the extent of the research community's readiness to perform the tests, knowing the time it takes to conduct the tests, knowing the suitability of the tests for the community, and the efficiency and adequacy of the supporting work team. As for the first reconnaissance experiment on 9/11/2022 at nine in the morning with four players. From Al-Diwaniyah Club (same players in the first experiment) and its purpose was to extract the scientific foundations of the tests (consistency and objectivity) as in Table (4):

Honesty: The researchers used apparent honesty by specifying all components of the tests in a questionnaire form and presenting them to experts and specialists, and through them, the validity of the tests was obtained.

Table (2) shows the reliability and objectivity coefficients and the T-value calculated for the tests:

	Tests	Stability coefficient	Calculated T	Significance	Objectivity factor	Calculated T	Significance
1	Hobby for forehand skill ability	0.89	5.51	Sig.	0.94	4.95	Sig.
2	Hobby for backward skill ability	0.86	6.26	Sig.	0.92	5.054	Sig.

The tabular T value was 4.303 at a significance level of 0.05 and a degree of freedom of 2 .Level of ease and difficulty of the tests: For the purpose of identifying the level of ease and difficulty

of the tests, the researchers worked to extract the skewness coefficient, as it is possible that "the tests used may be appropriate for a sample in terms of the degree of difficulty and ease when the distribution is symmetrical, meaning that it has a zero value" () and by observing the figures (1) and (2), it turns out that the skewness coefficients for all tests will not exceed (± 1), as the researcher did not exclude any test, which means obtaining tests with an appropriate level of difficulty for the members of the research sample.

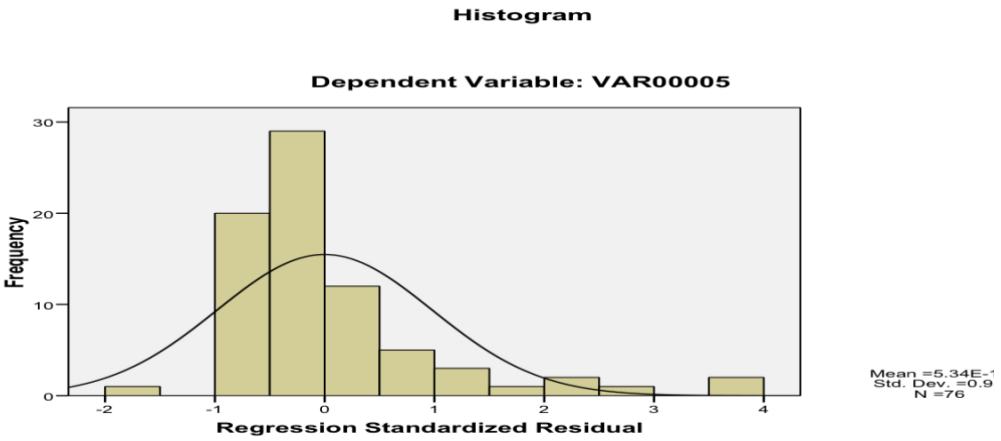

Figure (1) shows a normal distribution for the forehand test

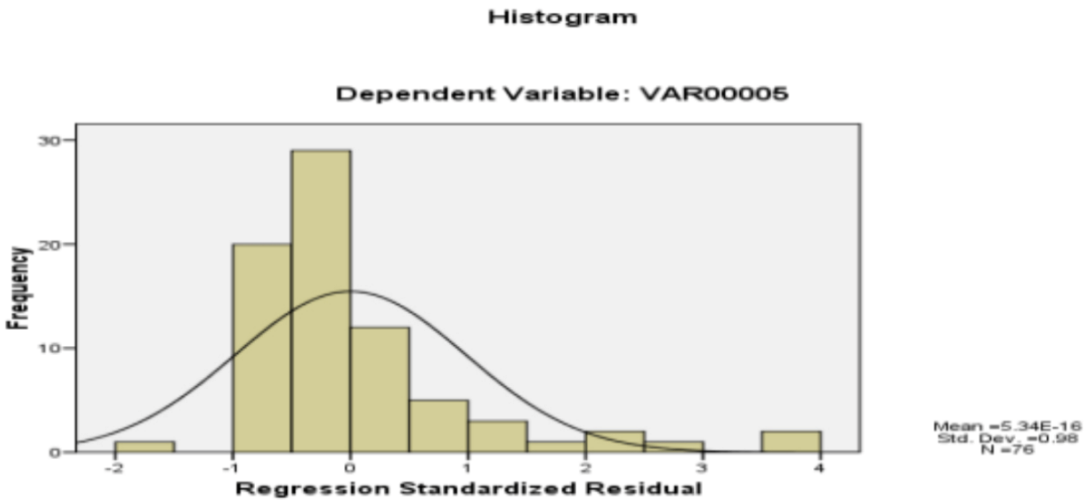

Figure (1) shows a normal distribution for the backhand test

The discriminatory ability of the tests: For the purpose of ensuring the ability of the tests to distinguish between the levels of achievement of the testers, the researchers worked to arrange the raw scores obtained in descending order during a main experiment for members of the research community, which numbered (76) players, and the raw scores of the researched community were divided into two upper groups. And the lowest, where each group reached (38) degrees, so that 50% was taken as the upper group and 50% as the lower group, so that discrimination coefficients could be obtained from it. Then, the independent samples t-test was used between the upper and lower groups, and Table (3) shows this:

Table (3) shows the discriminatory ability of skill tests:

	Tests	Supreme group		Inferior group		Calculated t	Significance
		S	A	S	A		
1	Hobby for forehand skill ability	34.051	3.748	24.692	3.518	4.573	Sig.
2	Hobby for backward skill ability	28.256	3.682	19.23	3.383	6.95	Sig.

The tabulated (t) value was 2,000 at a significance level of 0.05 and a degree of freedom of 74
The main experiment: After the research requirements have been completed in knowing the final version of the standards (neuro-linguistic programming, psychological alienation, and psychological hesitation), identifying the most important skill tests used in the research and knowing their validity, as well as conducting exploratory experiments and subjecting them to scientific foundations to control all factors and variables that may affect the conduct of the tests, The researchers conducted the main experiment on (76) players.
The main experiment lasted one month, starting on September 15, 2022 and ending on October 14, 2022. Field tests were conducted to measure the front and backhand groundstrokes on the clubs' hard courts. As for the measurements, they were applied in the theoretical halls of the investigated clubs.
Statistical methods: The researchers used the statistical package (SPSS) to process the data:

Presentation, analysis and discussion of results:

Table (4) It shows the arithmetic means and standard deviations of the investigated variables and the size of the researched population

	Variables	Population size	Mean	Standard deviation
1	Forehand groundstroke	76	29.526	5.838
2	Backhand groundstroke	76	23.921	5.625
3	Neuro-linguistic programming	76	315.789	51.894
4	Psychological alienation	76	61.381	7.984
5	Psychological frequency	76	81.881	13.842

Building a model to predict the frontal groundstroke through psychological variables (neurolinguistic programming, alienation, and hesitation):

Finding the correlation between psychological variables (neurolinguistic programming, alienation, and hesitation) for the model-building community for the frontal groundstroke:

Table (5) shows a correlation matrix between psychological variables and forehand groundstroke skill

Variables	Forehand groundstroke	Neuro-linguistic programming	Psychological alienation	Psychological frequency
Forehand groundstroke	1	0.825	-0.837	-0.446
Sig.	0.000	0.000	0.000	0.000
Neuro-linguistic programming	0.825	1	-0.774	-0.521
Sig	0.000	0.000	0.000	0.000
Psychological alienation	-0.837	-0.774	1	0.432
Sig.	0.000	0.000	0.000	0.000
Psychological frequency	-0.446	-0.521	0.432	1
Sig.	0.000	0.000	0.000	0.000

It appears from the results of Table (5) that the correlation coefficient values for the forehand groundstroke skill and psychological variables (neural linguistic programming, alienation, and hesitation) reached (0.825, -0.837, -0.446), respectively, and that their significance levels appeared at (0.000, 0.000, 0.000). It is less than (0.05), and this results that its correlation is moral and its relationship is real.

Extracting indicators of the linear regression equation model for the forehand groundstroke skill:

In order to evaluate the accuracy of a model for the outcome of the population constructing the model (for tennis players), and for the purpose of generalizing it to other societies larger than the population under study, the model must skillfully predict a forehand groundstroke through predictive psychological variables in the event of application to other societies or a sample. If there is a sharp drop in strength The model, which causes an apology for its generalization.

Table (6): Indicators of the quality of the linear regression equation model

Dimensions			Correlation coefficient R	Contribution ratio (interpretation factor) R^2	Adjusted contribution percentage R^2	Standard error of the estimate
Predictive		The result				
Psychological variables	Neuro-linguistic programming	Forehand groundstroke	0.882	0.778	0.769	2.807
	Psychological alienation					
	Psychological frequency					

It appears from Table (6) that the model is linear and its linear correlation value (R) for the dependent variable on the one hand and the independent psychological variables together on the other hand, and this value is called the multiple correlation and is calculated by finding the correlation coefficient between the observed values and the predicted values of the dependent variable and we note in this The table shows that the regression equation is good and therefore

the prediction is good. The value of the simple correlation coefficient was (0.882) and the value of the explanation coefficient was (0.778). This means that psychological variables (neural linguistic programming, alienation, and hesitation) explain a percentage of (77.8%) of the forehand groundstroke skill. This indicates that predicting the skill of the forehand groundstroke does not depend only on the variables (neural linguistic programming, alienation, frequency), but rather depends on other factors that represent the percentage (22.2%) is included in the model, and the adjusted contribution rate (R2) is an average of the value of (R2). The reason for the modification is that the regression equation originally results from using a small sample or population, and therefore the value of (R2) has a kind of increase. , which is modified to be closer to reality.

Table (7) shows an analysis of variance (ANOVA) for the forehand groundstroke skill

form	Contrast source	Sum of squares	Freedom degree	Mean squares	F-value		Significance
					Calculated	Sig.	
Forehand groundstroke	Between groups	1989.294	3	663.098	84.106	0.000	Sig.
	Within groups	567.653	72	7.884			
	Total	2556.947	75				

Table (7) indicates that the significance level value of the calculated (F) values of (84.106) was (0.000), which is less than the significance level (0.05). This is evidence of the significance of the multiple linear regression model. Finally, the model represents a relationship between the dependent variable Forehand groundstroke skill and psychological variables (neurolinguistic programming, alienation, and hesitation) are best represented.

Extracting values for the coefficients of the regression equation for the forehand groundstroke skill model:

Table (8) shows the values of the regression equation coefficients and the significance of the model parameters

Form	Transactions					T-value		Sig.
	Nature coefficient		The value of a coefficient for an equation			Calculated	Sig. Level	
			Parameters value	Standard error	Standard			
Forehand groundstroke	Fixed amount	A	36,180	7,359		4,916	0.000	Sig.
	NLP	B1	0,050	0.010	0.440	4.739	0.000	Sig.
	Psychological alienation	B2	-0.361	0.064	-0.494	-5.622	0.000	Sig.
	Psychological frequency	B3	-0.001	0.027	-0.003	-0.053	0.039	Sig.

Table (8) indicates the significance of the intercept coefficient (A) and regression coefficient for each of the independent dimensions (B1, B2, B3), and that the values of the significance levels

corresponding to the calculated (t) values were smaller than (0.05), which confirms the significance of the parameters (B1). , B2, B3) for the multiple regression model.

The amount of the constant indicates the relationship between the skill of the forehand groundstroke and the variables (neural linguistic programming, alienation, and hesitation). By referring to the same table, we find that the value of (t) calculated for the amount of the constant (A) amounted to (4.739, -5.622, -0.053), respectively. Its significance levels reached (0.000, 0.000, 0.458), which is less than (0.05). The regression equation can be interpreted as follows:

1- Regarding the first independent variable, the rate for the forehand groundstroke skill increases by one whenever the rate for the neuro-linguistic programming variable increases by (0.050).

2- Regarding the second independent variable, the rate for the forehand groundstroke skill increases by one whenever the rate for the psychological alienation variable increases by (-0.361).

3- Regarding the third independent variable, the rate of the front ground strike skill increases by one whenever the rate of the psychological frequency variable increases by (-0.001).

The t-test values in the same table explain the relative importance of each independent variable, as the larger the t-value is, the more important the variable is, as the independent psychological variables (neurolinguistic programming, alienation, and hesitation) reached their values (4.739, -5.622, -0.053). Respectively, which indicates its importance, as it effectively contributes to estimating the result values of the forehand groundstroke skill.

Discussing the results of the forehand groundstroke skill:

In the results of the phenomenon in Table (8) for predicting the forehand groundstroke skill through the variables (neural linguistic programming, psychological alienation, and psychological hesitation), respectively, the results showed that the NLP variable is more contributing to predicting the forehand groundstroke skill. Positively for advanced tennis players, the calculated value of (t) reached (4,739), which is the highest value of the rest of the variables, as the neuro-linguistic programming variable is considered one of the variables to which practitioners and athletes in general and tennis athletes in particular are exposed, due to the features of this game that may differ greatly. It is different from other games in terms of the calm atmosphere in which it is played during the actual performance in the match, and the player who excels in this neuro-linguistic programming works to develop his skills as well as raise his level of performance and will certainly work to exert greater effort and thus implement the best performance to achieve what the player seeks and vice versa. Those who lack this variable, which causes obstruction to athletic performance and thus not achieving the desired goal of athletic achievement. The researchers attribute the NLP variable to having the highest correlations and the highest percentage of contribution in predicting the skill of the forehand groundstroke, because this skill has a method of style and performance, and a lot depends on it. It is one of the advanced skills and the player's need for concentration and reaction speed, which are linked to the nervous system. (Ted Jarratt, translated by Jarir Library, 2006 AD) believes that "a player's success depends on the level of his mastery and skills. The more harmonious he is, such that his goals, beliefs, and values are balanced with his actions, words, and performance, the more effective and distinguished he is in his sport" ().

The results showed that the psychological alienation variable had a clear contribution after neurolinguistic programming in predicting the skill of the forehand stroke, and negatively for advanced tennis players in relation to the rest of the variables. The calculated value of (t) reached (-5.622), which is the highest negative value in relation to the rest of the variables. The variable is alienation. Psychological is considered one of the important factors and should be taken into consideration, as high-level players recognize the symbols or unfamiliar movements coming from their competitors, which leads them to respond in light of it in an appropriate time, which helps the player understand his opponent well. The more psychological alienation the player has, the greater the impact of this. On his performance, psychological alienation is one of the factors that is seen as one of the phenomena that affects the performance of athletes, and this effect is positive if the percentage of alienation decreases, which prompts them to exert more effort in order to obtain good results. The researchers believe that alienation of athletes is caused by loss of... Reinforcements and encouragement from coaches when they commit some mistakes, and it arises as a result of the fear of achieving good results and the lack of feeling of psychological reassurance and the lack of contact between the player and his coach and the good relationship between them is a major reason for alienation, and the opposite is true if the player feels psychological reassurance and the coach encourages him, and in this way the player is far from alienation.

The results also showed that the psychological hesitation variable also had a clear contribution after the psychological alienation variable in predicting the skill of the forehand groundstroke, and negatively for advanced tennis players in relation to the rest of the psychological variables, as the calculated (t) value reached (–0.053), which is the least negative value in relation to the rest of the variables. Psychological, psychological hesitation is of great importance in the game of tennis. The less hesitation a player has, the greater the player's skill performance and high effort at all times, whether at the beginning or end of the competition, as it reduces the players' injury to stress resulting from exposure to any pressure, whether it is pressure resulting before or at the end of the competition. During the match, and increases the player's use of effective coexistence methods and his appropriate personal and social resources as a result of the stressful conditions during competition, especially in cases of playing with competitors at the highest levels of sports, this variable must be given importance and reduce the players' hesitation and determination to perform in the most difficult competition situations. (Ali Salloum 2002) believes that "one of the factors that affects the player's level during the match is hesitation while performing the shots. When he tries to hit the ball, we find him often changing his mind while performing the shot and during the swing of the arm, which leads to an increase in the possibility of losing the point through the player's inability." To make the appropriate decision, so he must always not hesitate and perform the movements as he trained and mastered them naturally and not think about other possibilities while performing the strike. The player must also resort to some means that help him feel in control of the situation and prepare psychologically and mentally to confront it, for example The player can perform some movements that provide him stability, such as tapping the ball several times before serving, or moving his feet, or waiting for a moment between one point and another, or when preparing to return the serve ball during competitions. It has positive effects on the player, as it helps him control the situation and avoid haste and haste.).

Building a backhand groundstroke prediction model through psychological variables (neurolinguistic programming, alienation, and hesitation):

Finding the correlation between psychological variables (neurolinguistic programming, alienation, and hesitation) for the community to build the model for the back ground strike:

Table (9) shows the correlation matrix of psychological variables and backhand hitting skill

Variables	Backhand groundstroke	NLP	Psychological alienation	Psychological frequency
Backhand groundstroke	1	0.787	-0.827	0.388
Significance	0.000	0.000	0.000	0.000
NLP	0.787	1	-0.774	-0.521
Significance	0.000	0.000	0.000	0.000
Psychological alienation	-0.827	-0,774	1	0.432
Significance	0.000	0.000	0.000	0.000
Psychological frequency	-0.388	0.432	0.432	1
Significance	0.000	0.000	0.000	0.000

From the results of Table (9), we note that the values of the correlation coefficient between the skill of the forehand groundstroke and the psychological variables (neural linguistic programming, alienation, and hesitation) reached (0.787, -0.827, -0.388), respectively, and that their significance levels reached (0.000, 0.000, 0.000). It is less than (0.05), which indicates that its correlation is moral and its relationship is real.

Extracting indicators of the linear regression equation model for the backhand groundstroke skill:

In order to evaluate the accuracy of a model for a result in a model-building community (for tennis players), and for the purpose of generalizing it to other communities larger than the researched community, the model must skillfully predict the backhand strike based on predictive psychological variables during application to the community or another sample, and it is not possible to generalize in the case of a decline in The power of the model.

Table (10): Indicators of the quality of a linear regression equation model

Dimension			Correlation coefficient R	Contribution ratio (interpretation factor) R^2	Adjusted contribution percentage R^2	Standard error of the estimate
Predictive		The result				
Psychological variables	NLP	Backhand groundstroke	0.860	0.739	0.728	2.933
	Psychological alienation					
	Psychological frequency					

It appears from Table (10) that the model is linear and its linear correlation value (R) is between a dependent variable on the one hand and the three independent variables together on the other hand. This value is called the multiple correlation and is calculated by finding the correlation coefficient between the observed values and the predicted values of the dependent variable. We note in This table shows that the regression equation is good and therefore the prediction is good. The value of the simple correlation coefficient reached (0.860) and the value of its interpretation coefficient reached (0.739). This indicates that the variables (neural linguistic programming, alienation, and hesitation) explain a percentage of (73.9%) of the skill of the backhand strike, and this indicates the prediction of the skill of the backhand strike. The background level does not depend only on the psychological variables (neurolinguistic programming, alienation, and hesitation), but rather depends on other factors, representing a percentage (26.1%) that was not included in the model, and the adjusted contribution percentage (R2) is an average of the value of (R2), so the reason for the adjustment is The regression equation originally results from using a small sample or population, and therefore the value of (R2) has a kind of increase, which is modified to be closer to reality.

Table (11) shows an analysis of variance (ANOVA) for the backhand groundstroke skill

Form	Contrast source	Sum of squares	Freedom degree	Mean squares	F-value		Significance
					Calculated	Sig.	
Backhand groundstroke	Between groups	1754,119	3	584.706	67.966	0,000	Sig.
	Within groups	619.407	72	8.603			
	Total	2373.526	75				

Table (11) indicates that the value of the significance level of the calculated (F) values, which amounted to (67,966), amounted to (0.000), which is less than the significance level (0.05), which is indicative of the significance of a multiple linear regression model, and therefore the model confirms the relationship of a dependent variable. Backhand groundstroke skill and variables (NLP, alienation, and hesitation) are best represented.

Extracting the values of the regression equation coefficients of the backhand stroke skill model:

Table (12) shows the values of the regression equation coefficients and the significance of the model parameters

Form	Transaction					T-value		Sig
	Nature coefficient		The value of a coefficient for an equation			Calculated	Sig.	
			Parameters value	Standard error	Standard			
Backhand groundstroke	Fixed amount	A	32.449	7.687		4.221	0.000	Sig.
	NLP	B1	0.042	0.011	0.391	3.881	0.000	Sig.
	Psychological alienation	B2	-0.385	0.067	-0.546	-5.728	0.000	Sig.
	Psychological frequency	B3	0.021	0.029	0.051	0.722	0.000	Sig.

Table (12) shows the significance of the intercept coefficient (A) and the regression coefficient or estimated weight for all independent variables (B1, B2, B3), and that the values of their significance levels, accompanying the calculated (t) values, amounted to less than (0.05). This is evidence of the significance of the parameters. (B1, B2, B3) for a multiple regression model. The constant value indicates the relationship with the skill of the forehand groundstroke and the variables (neural linguistic programming, alienation, and hesitation). Referring to the same table, we find that the values of (t) calculated for the constant value (A) amounted to (3.881, -5.728, 0.722), respectively, and that their significance levels were: By (0.000, 0.000, 0.044), which is less than (0.05). The regression equation can be interpreted as follows:

1. For the first independent variable, the rate for the backhand stroke skill increases by one whenever the rate for the neuro-linguistic programming variable increases by (0.042).
2. Regarding the second independent variable, the rate of backhand strike skill increases by one whenever the rate of the psychological alienation variable increases by (-0.385).
3. Regarding the third independent variable, the rate for the backhand groundstroke skill increases by one whenever the rate of the psychological frequency variable increases by (0.021).

The t-test values in the same table explain the relative importance of each independent variable, as the larger the t-value is, the more important the variable is, as the independent psychological variables (neurolinguistic programming, alienation, and hesitation) reached their values of (3.881, -5.728, 0.722) on This indicates the importance of these independent variables according to their value, respectively. Independent variables contribute effectively to estimating the results of the backhand stroke skill.

Discussing the results of the backhand groundstroke skill:

Through the results that appeared in Table (12), the prediction of the backhand stroke skill is achieved through the variables (NLP, alienation, and hesitation), respectively. The results showed that the NLP variable contributes more to predicting the backhand stroke skill of advanced tennis players compared to the rest of the psychological variables. The calculated value of (t) was (3,881), which is the highest value compared to the rest of the variables, as the neuro-linguistic programming variable is considered one of the important tennis variables, especially when performing skills that require good preparation from the player due to the difficulty of performing them, as in the skill of a backhand groundstroke to cause the ball to fall into the ground. The side is opposite to the arm carrying the racket in proportion to the player receiving the ball, and the arm carrying the racket intersects, which increases the difficulty in performance. Therefore, he needs the receiving player to perform well. Had he not been distinguished by neuro-linguistic programming, he would not have been able to perform well in this skill, as well as to reform his thinking, refine his behavior, and increase his own weight, and thus carry out the tasks assigned to him. Because of its excellence in neuro-linguistic programming, the researchers attribute the neuro-linguistic programming variable to having the highest correlations and the highest percentage of contribution to predicting the backhand groundstroke skill. This is because this variable is of great importance in general and for the game of tennis in its own way, especially when performing advanced skills and more difficult basic skills such as the backhand skill. Back floor.

The results showed that the psychological alienation variable had a clear contribution after the neuro-linguistic programming variable in predicting the backhand stroke skill of advanced tennis players in relation to the remaining psychological variables, as its calculated value reached (-5.728) and negatively with regard to the psychological variables, and that the psychological alienation variable is considered one of the factors that It must be taken into consideration, as advanced tennis players need to reduce the percentage of psychological alienation when dealing with skills during performance, good expectation of the opponent and his level during the course of the match, and good reading of the opponent facilitates the initiation of a positive result, but the opposite is the player's alienation of his opponent when competing. Due to some of his performance style and skill, the opposing player can lose many important points and needs to make the greatest effort to keep up with his competitor in order to obtain good results. Muhammad (1998) believes that "alienation as a phenomenon has begun to increase among athletes, so it must be identified as interacting with many psychological, social, political, and religious factors, which makes it necessary to look at alienation through a social system that depends primarily on the reciprocal relationship between athletes and the groups that make up it and those of which it is composed." ".

The results showed that the psychological frequency variable also had a clear contribution after the psychological alienation variable in predicting the skill of the backhand groundstroke in relation to the rest of the psychological variables, as the calculated value reached (0.722) for the psychological variables. Psychological frequency is an important variable in the game of tennis, as it acts as a variable. Resistance and protection, as the less psychological hesitation changes in the player's psyche, the more the player insists on playing to win instead of playing to lose. Thus, the player is distinguished by not hindering any tennis stroke or skill and not being afraid of failure. Likewise, the lower the psychological hesitation increases the distinction. The player uses methods to effectively cope with the match and thus achieve good results, especially in cases of playing with competitors with the highest levels of sports. (Dhafer Hashim 2000) states that "a tennis player's use of his mental and intellectual abilities and capabilities and investing in them in a good and effective way is one of the weapons he uses during competitions. This is because victory cannot be achieved through the player's possession of skill and high ability to perform strikes, but rather it is achieved through good concentration and proficiency." Investing all physical, psychological and mental capabilities, and achieving this is not an easy matter, but rather is achieved through continuous training, high preparation, and possession of the necessary experience.

CONCLUSIONS

Given the previous results, the researchers concluded the following:

1- There is a positive correlation between the independent variable of neuro-linguistic programming and the dependent variables, the forehand and backhand groundstroke skills of advanced tennis players.

2- There is a negative correlation between the independent variables (psychological alienation and psychological hesitation) and the dependent variables, the forehand and backhand groundstroke skills of advanced tennis players.

3- It is possible to work on arranging the independent psychological variables (neural linguistic programming, psychological alienation, and psychological hesitation) in terms of their relationship with the dependent variables, the front and back ground strike skills, as follows (neural linguistic programming, psychological reluctance, and psychological alienation), respectively.

4- It is possible to predict through the independent psychological variables (neural linguistic programming, psychological alienation, and psychological hesitation) the variables dependent on the front and back groundstrokes for advanced tennis players, according to the importance of each variable.

RECOMMENDATIONS

In light of the conclusions reached, the researchers recommend the following:

1- Coaches benefit from the results of this study in planning and implementing training programs and allocating special time to develop the psychological skills of advanced tennis players in addition to developing other variables.

2- Trainers can give great importance to every cognitive and psychological activity that contributes to the development of psychological variables (neurolinguistic programming, psychological alienation, and psychological hesitation), whether these activities are inside or outside the tennis courts, while identifying areas of strength and areas of weakness, observing their development, and continuing to evaluate them, while recording notes for each. player.

3- It is necessary to apply this study methodology to other psychological variables and different skill variables.

4- Emphasizing the importance of directing their coaches to design development programs that help develop psychological variables in advanced players and holding theoretical lectures for players to familiarize them with the importance of these variables.

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