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Dr. Ahmed Kadhim Abdulkareem
Assistant Professor, Department
of Physical Education and
Sports Sciences, Faculty of
Education for Girls, University
of Kufa, Iraq

Modelling the causal relationships of emotional intelligence, the two types of contemplative-impulsive cognitive style, and aggressive behavior of junior's handball players

Dr. Ahmed Kadhim Abdulkareem

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Abstract

The purpose of this paper is to preparing a measure of emotional intelligence and applying it to junior's handball players, preparing a measure for the two types of contemplative and impulsive cognitive style and applying it to junior's handball players, prepare a measure of aggressive behavior and apply it to junior's handball players, identifying the level of emotional intelligence of junior's handball players, and identifying a classification of junior's handball players according to the two types of cognitive style: contemplative and impulsive. The descriptive approach was used to study correlational relationships to reveal the relationship between variables related to a phenomenon, behavior, or variable. The community included (180) junior's handball players in the Middle Euphrates clubs for the 2022-2023 sports season, and a sample of (122) players was selected by a simple random method. One of the most important results reached by the researcher is that: The emotional intelligence scale prepared by the researcher was able to measure the level of emotional intelligence of junior's handball players, and the cognitive style scale prepared by the researcher enables the players to be classified as junior's handball players according to the two types (contemplative-impulsive). One of the most important recommendations recommended by the researchers is that: Benefiting from the emotional intelligence scale, the contemplative-impulsive cognitive style scale, and the aggressive behavior scale that the researcher prepared to measure the variables for junior's handball players, and conduct similar studies to apply the three measures (emotional intelligence, aggressive behavior, contemplative-impulsive cognitive style) to a group of handball players, such as youth or advanced players.

Keywords: Phenomenon, behavior, or variable

Introduction

Sports psychology is concerned with studying the psychological, social and educational factors that affect learning kinetic skills and helping the athlete reach the best achievement within his physical and psychological capabilities. One of the interests of psychology is the study of human behavior in his behavior and actions in our daily lives and this behavior is not devoid of Among some hostile manifestations, and in sports activity, this behavior appears, specifically during sports competitions, which in turn are not devoid of roughness and violence among players in confronting their competitors, and their feeling of harming the competitor, especially when cases of love, feelings of defeat, and staying away from victory occur. The motive of aggression appears in human behavior towards others with the aim of causing harm to them, whether this is in the form of physical aggression or in the form of verbal aggression, in addition to the fact that aggression in the sports field is among the most important problems faced by the sports community that is inconsistent with values and principles. Calm down and sports morals. These aggressive cases are common in most group games, especially the game of handball, through which contact occurs between players during sports competition, and hostile reactions appear between them towards their competitors, directly or indirectly. The game of handball is one of the team games in which it is necessary to the player's constant

Corresponding Author:

Dr. Ahmed Kadhim Abdulkareem
Assistant Professor, Department
of Physical Education and
Sports Sciences, Faculty of
Education for Girls, University
of Kufa, Iraq

movement on the field and the large amount of friction between the players generates states of jitters and anger, which is a reaction that occurs as a result of paying for what the person has. It generates a state of aggressive behavior, which is a type of instantaneous behavior that ends after the appearance of the stimulus or the disappearance of the stimulus, which must focus on the psychological state of the player. Emotional intelligence is an important element that must be focused on, as emotional intelligence is the ability for an individual to be aware of his feelings and to use these feelings to make the right decisions in life and the ability to deal with pressures and control motives and emotions. Interest in emotional intelligence appeared as a psychological structure through which many things can be explained. Aspects of human behavior, the increased interest in the concept of emotional intelligence may be due to two reasons: the first lies in the idea that individuals differ in measurable emotional skills, which considers that important ideas in themselves constitute an important element in individual differences, and the second is the importance of the theoretically expected results regarding the link between emotional intelligence. It has a wide range of variables of importance. Emotional intelligence is also linked to skills within the person, such as regulating mood and reducing anxiety and stress. The psychological state that the player goes through while playing is an important factor, as states of anger and aggression appear to the player. This means that aggression is instantaneous behavior that ends after its appearance or disappearance. What is interesting is that aggression has a meaning that does not go beyond harming others or oneself, or both, as the player is exposed to a state of anger that raises the psychological state of the player, which leads him to increase the degree of anger and reach the point of aggression, that is, causing harm and damage to oneself, others, or both. Therefore, the importance of the research lies in arriving at accurate results that give opportunities and possibilities to explain human behavior, if possible, and that the psychological, skill and physical aspects come together to have an impact on sports. It has applied value and is a special link for coaches and those concerned with developing sports performance, as it contributes to knowing the remaining factors affecting sports. Performance can then be taken into consideration, whether in the process of selecting athletes, or when developing training programs, or educational units.

Research problem

The research problem lies in answering the following questions

- What is the reality of the emotional intelligence of junior's handball players?
- What is the reality of the typical contemplative-impulsive cognitive style of junior's handball players?
- What is the reality of aggressive behavior among young handball players?
- Is it possible to classify players according to the two types of cognitive style: contemplative and impulsive?
- Is it possible to prepare a model of the causal relationships of emotional intelligence, the two types of contemplative-impulsive cognitive style, and the aggressive behavior of junior's handball players?
- Is it possible to know the direct and indirect relationships between emotional intelligence, the two types of contemplative-impulsive cognitive style, and the aggressive behavior of junior's handball players?

Research objective

- Preparing a measure of emotional intelligence and applying it to junior's handball players.
- Preparing a measure for the two types of contemplative and impulsive cognitive style and applying it to junior's handball players
- Prepare a measure of aggressive behavior and apply it to junior's handball players.
- Identifying the level of emotional intelligence of junior's handball players.
- Identifying a classification of junior's handball players according to the two types of cognitive style: contemplative and impulsive.
- Identify the level of aggressive behavior of young handball players.
- Preparing a model of the causal relationships of emotional intelligence, the two types of contemplative-impulsive cognitive style, and the aggressive behavior of junior's handball players.
- Identifying the direct and indirect relationships between emotional intelligence, the two types of contemplative-impulsive cognitive style, and the aggressive behavior of junior's handball players.

Research fields

- Human field: Junior handball players in the Middle Euphrates clubs for the 2022-2023 sports season.
- Time field: (15/9/2022) to (10/3/2023)
- Spatial field: Closed halls in the Middle Euphrates handball clubs

Research methodology and field procedures

Research Methodology

The descriptive approach was used to study correlational relationships to reveal the relationship between variables related to a phenomenon, behavior, or variable.

Community and sample research

The community included (180) junior's handball players in the Middle Euphrates clubs for the 2022-2023 sports season, and a sample of (122) players was selected by a simple random method.

Methods of data collection

The researcher used two questionnaires as a basis for collecting data, which are:

First: The measure of emotional intelligence.

Second: Aggressive behavior scale.

Third: A typical measure of the contemplative-impulsive cognitive style.

Devices and tools

- Scientific calculator.
- Electronic calculator.
- Stopwatch.
- Stationary.
- Registration forms.

Field research procedures

Steps for preparing an emotional intelligence scale

Purpose of preparing the emotional intelligence scale

Identifying the level of emotional intelligence of the junior handball players of the Middle Euphrates clubs.

Collecting and preparing items for the emotional

intelligence scale

The researcher reviewed many sources and previous studies, and accordingly adopted the emotional intelligence scale prepared by (Muhammad Jassim Arab. 2011), because the scale measures the same purpose that the researcher seeks, as the scale consists of (21) items with five answer alternatives, which are (Very severe, somewhat severe, moderate, weak, very weak) The scores for these alternatives are the lowest (1) and the highest (5). Thus, the highest score obtained by the player is (105) and the lowest score is (21).

Determining the validity of the emotional intelligence scale

The researcher prepared a questionnaire to determine the validity of the scale. This form was presented to a group of (13) experts and specialists to state their opinions on the validity of the scale. After collecting the questionnaire, all experts agreed (100%).

Steps for preparing a measure of cognitive style (contemplative - impulsive)**The purpose of preparing the cognitive style scale (contemplative - impulsive)**

Identifying the cognitive style pattern (contemplative - impulsive) of junior handball players for the Middle Euphrates clubs.

Collecting and preparing items for the cognitive style scale (contemplative - impulsive)

The researcher reviewed many sources and previous studies, and accordingly adopted the scale by (Abdul Rahman Al-Saqlawi. 2022) ^[1], because the scale measures the same purpose that the researcher seeks, as the scale consists of (30) items with three answer alternatives, which are (Always, Sometimes, Never) the scores for these alternatives are the lowest score (1), and the highest score (3). Thus, the highest score the player obtains is (90) and the lowest score is (30).

Determining the validity of the cognitive style scale (contemplative - impulsive)

The researcher prepared a questionnaire for the scale and presented it to a group of (13) experts and specialists. To express their opinions on the validity of the scale, after collecting the questionnaire, all experts agreed (100%).

Steps to prepare an aggressive behavior scale**The purpose of preparing the aggressive behavior scale**

Identifying the level of aggressive behavior of junior handball players in the Middle Euphrates clubs.

Collect and prepare items for the aggressive behavior scale

The researcher reviewed many sources and previous studies, and accordingly adopted the aggressive behavior scale prepared by (Nahid Hamid Mashkooor, Lamia Hassan Muhammad. 2017) ^[4], because the scale measures the same purpose that the researcher seeks, as the scale consists of (34) items distributed over two areas are:

- The first field (physical aggressive behavior) (17) paragraphs.
- The second area (verbal aggressive behavior) (17) paragraphs.

As for the answer alternatives according to the five-point Likert model, which are (always, often, sometimes, rarely, never)), the scores for these alternatives are the lowest score

(1), and the highest score (5). Thus, the highest score the player gets is (170) and the lowest score is (34).

Determining the validity of the aggressive behavior scale

The researcher prepared a questionnaire to determine the validity of the scale. This form was presented to a group of (13) experts and specialists to state their opinions on the validity of the scale. After collecting the questionnaire, all experts agreed (100%).

Exploratory experience

The exploratory experiment was applied to Al-Qasim Club players (in the closed hall) on the day of (9/25/2022), for the two measures (emotional intelligence and aggressive behavior, and a typical measure of contemplative and impulsive cognitive styles), and after (20) days, the experiment was applied to the individuals themselves on (10/10/2022) The purpose of conducting the exploratory experiment is:

- Identify the difficulties that the researcher may face when applying questionnaires.
- The content, and in answering the paragraphs in terms of their ease or difficulty, for the purpose of rephrasing.
- The time it takes to give instructions and take the test.

Calculating the psychometric properties of the scales

Validity: It was confirmed by presenting the two scales to experts and specialists, thus verifying the apparent validity for which the scale was developed.

Stability: stability was extracted through testing and re-application of the test over a period of time, and the two scales proved to have high stability.

Main experiment

After extracting the results of the exploratory experiment and ensuring the validity of the questionnaires for application to junior's handball players in the Middle Euphrates region, the researcher began applying the questionnaires to the research sample, which numbered (122) players. This is during the period (25/10/2022), until (20/11/2022).

Statistical methods and equations used in the research

- 1- Statistical program. SPSS.
- 2- AMOS statistical program.
- 3- Statistical program: Excel.

Results and discussion

Study and analyze the theoretical model of the relationship between the independent variables (emotional intelligence) and the dependent variable (aggressive behavior)

Proposed model**Presentation, analysis and interpretation of the results**

The researcher will test the validity of the assumed structural model for the data of the research community, which includes the responses of its members to the observed variables (study variables - cognitive style (contemplative - impulsive), emotional intelligence, aggressive behavior) and study the goodness of fit between the theoretical model (assumed) and the collected data, and in the case of... Good fit between them - as expressed by good fit indicators - means that the model supports the validity of the assumption related to the relationships, correlations, and influence between the variables. This is done through - adapting the AMOS construction model (path analysis model) - where the criteria

for the model is good fit to the measurement data are as in Table (1).

Table 1: Approved criteria for the model’s goodness of fit to the data

Index	Touchstone for good conformity
Chi-Square or Cmin	As small as possible (non-sig)
Ratio (df/Cmin)	$\leq 2 \text{ df} / \text{Cmin}$
Goodness of Fit Index (GFI)	$0.90 > \text{GFI}$
NFI	$0.90 > \text{NFI}$
Comparative Fit Index (CFI)	$0.90 > \text{CFI}$
RMSEA index	$0.08 < \text{RMSEA} < 0.05$

Study and analyze the theoretical model of the relationship between the independent variables (cognitive style contemplative - impulsive), emotional intelligence) and the dependent variable (aggressive behavior):
Study and analyze the theoretical model of the relationship between the independent variables (contemplative cognitive style, emotional intelligence) and the dependent variable (aggressive behavior):

• Proposed model:

Statistical description of the variables of the proposed model:

Table 2: Statistical description of the results of the research variables

Variables	Sample volume	Arithmetic mean	Standard deviation	Standard error
Contemplative cognitive style	122	113.30	7.19	0.592
Emotional intelligence	122	73.21	5.01	0.415
Aggressive behavior	122	119.22	5.19	0.428

When studying Table (2), we notice that the rates of the variables came in a row (113%, 73%, 119%). It also appears from the same table that the values of the standard errors for the variables are small compared to the averages, and this indicates that the sample represents the population accurately (the best representation).

Table 3: Shapiro-Walk test value calculated and its significance level for the research variables

Variables	Calculated	Degree of freedom	level sig
Contemplative cognitive style	0.982	122	0.055
Emotional intelligence	0.942	122	0.053
Aggressive behavior	0.952	122	0.057

It appears from Table (3) that the Shapiro-Walk test is not significant, because all significance values were greater than the standard (0.05), and this means that the distribution for all variables was normal.

Indicators of model matching with data

The theoretical structural model (structural equation) of the overall model that explains the relationships between the research variables can be verified. The following diagram represents the path analysis model for equating the relationships between the research variables (contemplative cognitive style, emotional intelligence, aggressive behavior).

The efficiency of the model will be estimated through path analysis. The relationships and connections between these variables. The model was processed with the program (AMOS v.24). Looking at the analysis values extracted with the program, it becomes clear that the data matches the model well, and this can be verified by comparing the values of the calculated indicators with the criteria of goodness of fit, which will be displayed as follows:

First - Indicators of model acceptance evidence (chi-square (X²)):

Table 4: Shows the values of indicators of conformity of the hypothetical model with the data (indicators of model acceptance evidence)

No.	Indicator	Calculated value	touchstone of acceptance
1.	Chi-Square	0.097	non sig
2.	Degrees of freedom	1	-
3.	Significance level	0.755	$0.05 >$
4.	Standard chi-square (df/X ²)	0.097	$\leq 2 \text{ df} / \text{X}^2$

It appears from Table (4) that the value of (Chi-square) was (0.097) and that the value of the level of significance accompanying it was (0.755), which is greater than the value (0.05). This means accepting the null hypothesis that says: (There is no difference between Theoretical model and data) and thus demonstrates the good match between the observed and expected covariance matrix. In addition, the value of (standard chi-square) was smaller than (2), and this confirms what was mentioned above that the model matches the data. The researcher notes here that these indicators represent absolute acceptance evidence that determines the degree of acceptance of the study framework - it does not determine whether the study framework is appropriate or inappropriate (good or bad), but rather only determines the extent of acceptance. If the study framework is not accepted, the research will not be conducted. The issue of the suitability or lack of suitability of this framework, as the researcher points out, is that it is not possible to rely on the (Chi-square) indicator alone to verify the conformity of the model with the data, for several reasons, including:

- Its sensitivity to correlation coefficients. The higher the correlation coefficients, the higher the Chi-square value.
- Its sensitivity to the sample size, it increases with the increase in sample size.
- It is unrealistic, as it assumes a perfect match between the observed and expected model.

Second: Absolute conformity indicators:

Table 5: Shows the values of indicators of fit of the hypothetical model with the data (absolute fit indicators)

No.	Indicator	Calculated value	Touchstone of acceptance
1.	Goodness of Fit (GFI)	1.000	$0.90 > \text{GFI}$
2.	Adjusted goodness of fit (AGFI)	0.997	$0.90 > \text{AGFI}$
3.	Root Mean Square Error of Approach - Ramsey (RMSEA)	0.000	$0.08 <$

From Table (5) we note the following

- 1- Goodness of conformity index (GFI): It appears that the value of the goodness of conformity index came in at (1.000), which is greater than (0.90). The value of this index, according to quality standards, is greater than

(0.90), and the closer it is to one, the better.

- 2- Adjusted goodness of conformity index (AGFI): It appears that the value of the (adjusted goodness of conformity) index came in at (0.997), which is greater than (0.90), as the value of this index, according to quality standards, is greater than (0.90), and the closer it is to one, the more well.
- 3- Root Mean Square Error of Approach (RMSEA) index: This index measures the difference between the covariance matrix of the model from which the sample was taken and the population, and it is preferable that it be less than (0.08). The lower the better, and the closer it is to zero, the greater the percentage of match. The value of the Ramsey index, as it appears from Table 5, was (0.000), which means that there is a perfect match.

Third: Increasing conformity indicators

Table 6: shows the values of indices of fit of the hypothetical model with the data (incremental fit indices)

No.	Indicator	Calculated value	touchstone of acceptance
1	Tucker Lewis (TLI)	1.008	0.90 >TLI
2	NFI	0.995	0.90 >NFI
3	Comparative Fit (CFI)	1.000	0.90 >CFI

Table 7: shows the values of standard and non-standard estimates of the paths of relationships between the research variables

External	Variable		Estimates		Standard error	value (t) Statistics	level sig
	paths of relationships	Internal	Non-standard	standard			
Contemplative cognitive style	→	Emotional intelligence	0.457	0.655	0.043	10.508	0.000
Emotional intelligence	→	Aggressive behavior	0.739	0.713	0.060	12.319	0.000

It appears from Table (7) that all values of the level of significance accompanying the values of the t-statistics were smaller than (0.05). This means rejecting the null hypothesis that says: There are no relationships between the external (independent) variables and the internal (dependent) variables, and accepting the alternative hypothesis that it says that these relationships exist, in other words, there is an influence of the factors together, as follows:

- There is an effect of the factor (contemplative cognitive style) on the factor (emotional intelligence).
- There is an effect of the factor (emotional intelligence) on the factor (aggressive behavior).

The positive sign of the paths of relationships between variables indicates that when the values of the external

From Table (6) we note the following

- Tucker Lewis Index (TLI): It appears that the value of the Tucker Lewis Index - TLI - which is from the family of the (comparative conformity) index - came in at (1.008), which is greater than the standard (0.90), as the value of this index is according to quality standards. Its value is greater than (0.90).
- Standard Conformity Index (NFI): It appears that the value of the Standard Conformity Index - NFI - which is from the family of the Comparative Conformity Index - came in at (0.995), which is greater than the standard (0.90), as the value of this index according to Quality standards have a value greater than (0.90).
- Comparative Conformity Index (CFI): It appears that the value of the Comparative Conformity Index came in at ((1.), which is greater than (0.90), since the value of this index, according to quality standards, is greater than (0.90). With these results, it can be Saying that there are relationships between the variables of the model, and that the model departs from the null model.

Standardized and non-standardized estimates for the hypothetical model:

(independent) variables increase (or decrease), they are matched by an increase (or decrease) in the values of the internal (dependent) variables. When guessing and estimating the value of the relationship between the two variables (the influencing and the affected), we find that when the value of (contemplative cognitive style) increases by (1.00), the value of (emotional intelligence) increases by (0.655), and when the value of (emotional intelligence) increases by (1.00), the value of (aggressive behavior) increases by (0.713). We also note from the same table that the percentage of error in the values of the relationships, or the regressions between the variables (influencing and affected) are small values.

Direct influence and indirect influence:

Table 8: shows the value of the relationship between variables using the direct and indirect method

Variables	Contemplative cognitive style		Emotional intelligence	
	Direct	Indirect	Direct	Indirect
Emotional intelligence	0.655	0.000	0.000	0.000
Aggressive behavior	0.000	0.467	0.713	0.000

It appears from Table (8) that the value of the direct relationship between contemplative cognitive style and emotional intelligence is (0.000), which is smaller than the value of the indirect relationship (0.467). On the other hand, the direct relationships between the contemplative cognitive style and emotional intelligence (0.655), and emotional intelligence and aggressive behavior (0.713) are greater than the indirect relationships (0.000). This means that the emotional intelligence variable plays the role of the mediating

variable between the contemplative cognitive style variable and the variable Aggressive behavior. In other words, the personality type A variable affects the aggressive behavior variable indirectly through the emotional intelligence variable. To confirm this, we go to what was stated by the Sobel Test to identify the significance of the mediating role of the variable (emotional intelligence) as a condition (for aggressive behavior).

Table 9: shows the Sobel test results

Independent variable	Mediating variable	Path a	Path b	Path ab	Value z	Standard error	level of confidence 95%	
							Lowest value	Highest value
Contemplative cognitive style	Emotional intelligence	0.46	0.35	0.1610	1.96	0.029	0.1042	0.2178

It appears from Table (9) that zero falls outside the confidence limits (it does not fall between the highest value and the lowest value). This means that there are indirect relationships between the contemplative cognitive style variable, the aggressive behavior variable, and the overall effect of the mediating variable (emotional intelligence).

4-1-2 Study and analyze the theoretical model of the relationship between the independent variables (impulsive cognitive style, emotional intelligence) and the dependent variable (aggressive behavior):

• Proposed model:

Statistical description of the variables of the proposed model:

Table 10: shows the Statistical description of the results of the research variables

Variables	Sample volume	Arithmetic mean	Standard deviation	Standard error
Impulsive cognitive style	122	112.08	6.90	0.65
Emotional intelligence	122	73.20	3.99	0.37
Aggressive behavior	122	119.34	4.84	0.45

When studying Table (10), we notice that the rates of the variables came in a row (112%, 73%, and 119%). It also appears from the same table that the values of the standard

errors for the variables are small compared to the averages, and this indicates that the sample accurately represents the population (the best representation).

Table 11: Shows the Shapiro-Walk test value calculated and its significance level for the research variables

Variables	Calculated	Degree of freedom	level sig
Impulsive cognitive style	0.979	112	0.077
Emotional intelligence	0.978	112	0.061
Aggressive behavior	0.978	112	0.059

It appears from Table (11) that the Shapiro-Walk test is not significant, because all significance values were greater than the standard (0.05), and this means that the distribution for all variables was normal.

The efficiency of the model will be estimated through path analysis of the relationships and correlations between these variables. The model was processed with the program (AMOS v.24). By going to the analysis values extracted by the program, it becomes clear that the data matches the model well, and this can be verified by comparing the values. Indicators calculated using goodness-of-fit criteria, which will be presented as follows:

Indicators of model matching with data:

The theoretical structural model (structural equation) can be verified for the overall model that explains the relationships between the research variables, and the following diagram represents the path analysis model for equating the relationships between the research variables (impulsive cognitive style, emotional intelligence, aggressive behavior).

First-Indicators of model acceptance evidence (Chi-square (X2))

Table 12: shows the Values of indicators of conformity of the hypothetical model with the data (indicators of model acceptance evidence)

No.	Indicator	Calculated value	touchstone of acceptance
1.	Chi-Square	1.090	non sig
2.	Degrees of freedom	1	-
3.	Significance level	0.296	0.05>
4.	Standard chi-square (df/X2)	1.090	≤ 2 df/X2

It appears from Table (12) that the value of (Chi-square) was (1.090), and the value of the significance level accompanying it was (0.296), which is greater than the value (0.05). This means accepting the null hypothesis that says: (There is no difference between... The theoretical model and the data), and thus it indicates good matching between the observed and expected variance matrix, and the value of (standard chi-square) was smaller than (2), and this confirms what was stated above that the model matches the data. The researcher notes here that these indicators represent The absolute acceptance guide that determines the degree of acceptance of the study framework - does not determine whether the study framework is appropriate or inappropriate (good or bad), but rather only determines the extent of acceptance. If the study framework is not accepted, the subject of the suitability or

lack of suitability of this framework will not be researched. The researcher also points out that it is not possible to rely on the Chi-square indicator alone to verify the model's conformity with the data, for several reasons, including (Ayman Suleiman Al-Qahwaji, Faryal Muhammad Abu Awad. 2018)^[2]:

- Its sensitivity to correlation coefficients. The higher the correlation coefficients, the higher the Chi-square value.
- Its sensitivity to the sample size, it increases with the increase in sample size.
- It is unrealistic, as it assumes a perfect match between the observed and expected model.

Second: Absolute conformity indicators

Table 13: shows the values of indicators of fit of the hypothetical model with the data (absolute fit indicators)

No.	Indicator	Calculated value	Touchstone of acceptance
1.	Goodness of Fit (GFI)	0.994	0.90 >GFI
2.	Adjusted goodness of fit (AGFI)	0.961	0.90 >AGFI
3.	Root Mean Square Error of Approach - Ramsey (RMSEA)	0.028	0.08 <

From Table (13) we note the following

- Goodness of conformity index (GFI): It appears that the value of the goodness of conformity index came in at (0.994), which is greater than (0.90), as the value of this index according to quality standards is greater than (0.90), and the closer it is to one, the more better.
- Adjusted goodness of conformity index (AGFI): It appears that the value of the (adjusted goodness of conformity) index came in at (0.961), which is greater than (0.90), as the value of this index according to quality standards is greater than (0.90), and the closer it is to one, the more better.
- Root Mean Square Error of Approach (RMSEA) index: This index measures the difference between the covariance matrix of the model from which the sample was taken and the population. It is preferable that it be less than (0.08). The lower the better, and the closer it is to zero, the greater the percentage of match. The value of the Ramsey index, as it appears from Table 13, was 0.028, which means that there is a perfect match.

Third: Increasing conformity indicators:

Table 14: shows the values of indicators of fit of the hypothetical

Table 15: shows the values of standard and non-standard estimates of the paths of relationships between the research variables

Variable			Estimates		Standard error	value (t) Statistics	level sig
External	paths of relationships	Internal	Non-standard	standard			
Impulsive cognitive style	→	Emotional intelligence	0.494	0.856	0.028	17.421	0.000
Emotional intelligence	→	Aggressive behavior	0.953	0.749	0.080	11.913	0.000

It appears from Table (15) that all the significance level values accompanying the t-statistic values were smaller than (0.05). This means rejecting the null hypothesis that says there are no relationships between the external (independent) variables and the internal (dependent) variables, and accepting the alternative hypothesis that says In the presence of these relationships, in other words, there is an influence of factors together, as follows:

- There is an effect of the factor (Impulsive cognitive style) on the factor (Emotional intelligence).
- There is an effect of the factor (emotional intelligence) on the factor (Aggressive behavior).

The positive sign of the paths of relationships between variables indicates that when the values of the external (independent) variables increase (or decrease), this is accompanied by an increase (or decrease) in the values of the internal (dependent) variables. When we estimate and estimate the value of the relationship between the two variables (the influencing and the affected), we find that when the value of (impulsive cognitive style) increases by (1.00), the value of (emotional intelligence) increases by (0.856), and when the value of (emotional intelligence) increases by (1.00), the value of (aggressive behavior) increases by (0.749). We also notice from the same table that the percentage of error in the values of relationships or

model with the data (incremental fit indicators)

No.	Indicator	Calculated value	touchstone of acceptance
1	Tucker Lewis (TLI)	0.999	0.90 >TLI
2	NFI	0.995	0.90 >NFI
3	Comparative Fit (CFI)	1.000	0.90 >CFI

From Table (14) we note the following:

- Tucker Lewis Index (TLI): It appears that the value of the Tucker Lewis Index - TLI - which is from the family of the (comparative conformity) index - came in at (0.999), which is greater than the standard (0.90), as the value of this index is according to quality standards. Its value is greater than (0.90).
- Normative Conformity Index (NFI): It appears that the value of the NFI index - which is from the Comparative Conformity Index family - came in at (0.995), which is greater than the standard (0.90). The value of this indicator, according to quality standards, is greater than (0.90).
- Comparative Conformity Index (CFI): It appears that the value of the Comparative Conformity Index came in at ((1.000), which is greater than (0.90), as the value of this index, according to quality standards, is greater than (0.90). With these results, it can be said that there is Correlations between model variables, and that the model departs from the null model.

Standardized and non-standardized estimates for the hypothetical model:

regressions between variables (influencing and affected) is small.

Direct influence and indirect influence

Table 16: shows the value of the relationship between the variables using the direct and indirect method

Variables	Impulsive cognitive style		Emotional intelligence	
	Direct	Indirect	Direct	Indirect
Emotional intelligence	0.856	0.000	0.000	0.000
Aggressive behavior	0.000	0.641	0.749	0.000

It appears from Table (16) that the value of the direct relationship between impulsive cognitive style and emotional intelligence is (0.000), which is smaller than the value of the indirect relationship (0.641). On the other hand, the direct relationships between impulsive cognitive style and emotional intelligence (0.856) and emotional intelligence and aggressive behavior (0.749) are greater than the indirect relationships (0.000). This means that the emotional intelligence variable plays the role of the mediating variable between the impulsive cognitive style variable and the aggressive behavior variable. In other words, the variable of impulsive cognitive style affects the variable of aggressive behavior indirectly through

the variable of emotional intelligence. To confirm this matter, we go to the Sobel Test to identify the significance of the

mediating role of the variable (emotional intelligence) as a condition (for aggressive behavior).

Table 17: Shows the Sobel test results

Independent variable	Mediating variable	path a	path b	path ab	value z	Standard error	level of confidence 95%	
							Lowest value	Highest value
Impulsive cognitive style	Emotional intelligence	0.49	0.95	0.4655	1.96	0.048	0.3714	0.5596

It appears from Table (17) that zero falls outside the confidence limits (it does not fall between the highest value and the lowest value). This means that there are indirect relationships between the impulsive cognitive style variable, the aggressive behavior variable, and the overall effect of the mediating variable (Emotional intelligence).

Conclusions and Recommendations

Conclusions

- The emotional intelligence scale prepared by the researcher was able to measure the level of emotional intelligence of junior's handball players.
- The cognitive style scale prepared by the researcher enables the players to be classified as junior's handball players according to the two types (Contemplative-impulsive).
- The aggressive behavior scale prepared by the researcher enables the measurement of the level of aggressive behavior of junior's handball players.
- There is an effect of the factor (Emotional intelligence) on the factor (Aggressive behavior).
- The validity of the causal model of path analysis has been proven in clarifying the primacy of variables in terms of them being independent, mediating, and dependent.
- The emergence of direct effects between the contemplative cognitive style on emotional intelligence, and the emergence of indirect effects through the contemplative cognitive style on aggressive behavior through the variable emotional intelligence.
- The emergence of direct effects between the impulsive cognitive style on emotional intelligence, and the emergence of indirect effects through the impulsive cognitive style on aggressive behavior through the variable emotional intelligence.

Recommendations

- Benefiting from the emotional intelligence scale, the contemplative-impulsive cognitive style scale, and the aggressive behavior scale that the researcher prepared to measure the variables for junior's handball players.
- Conduct similar studies to apply the three measures (emotional intelligence, aggressive behavior, contemplative-impulsive cognitive style) to a group of handball players, such as youth or advanced players.
- Conduct similar studies to apply the three measures (emotional intelligence, aggressive behavior, contemplative-impulsive cognitive style) to other events.
- Studying the psychological, sports, educational, and social phenomena and problems that reduce the emotional intelligence of handball players.

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