



## The effect of practicing some sporting activities on the motivational traits of Top-levels Athletes.

Researcher / Marwa Mohamed Ismail <sup>(1)</sup>, Prof. Dr/ Nadia Mohamed Soltan <sup>(2)</sup>, Prof. Dr/ Skeena Mohamed Nasr <sup>(3)</sup>, Dr/ Karem Ahmed Abu Zaid <sup>(4)</sup>

(1) Researcher at the doctorate level, Department of Fundamentals of Physical Education, Faculty of Physical Education for men, Alexandria University.

(2) Professor, Department of Fundamentals of Physical Education, Faculty of sport Education for men, Alexandria University.

(3) Professor of Sport Psychology, Department of Fundamentals of Physical Education, Faculty of sport Education for men, Alexandria University.

(4) Assistant Professor, Department of Fundamentals of Physical Education, Faculty of sport Education for men, Alexandria University

### Abstract

The personal characteristics have great importance in the field of sports and the motivational traits are one of the aspects that represent that importance, and it is considered one of the most important topics that need to be studied due to its great role in influencing the movement behavior of Top-levels athletes in (volleyball - hockey - handball).

The research aims to identify the differences between the three sports activities (volleyball - hockey - handball) in the dimensions of the motivational traits assessment scale of Top-levels athletes.

The researcher used the descriptive approach using the survey method because it is relevant to the nature of the research. research sample included (199) Top-levels athletes.

### Recommendations:

1. The Egyptian Federations for Sports Activities under study:

The necessity of the presence of a sports psychologist to develop the sports motivation traits within each team (volleyball - hockey - handball).

2. coaches of high-level athletes (under study):

It is necessary for the coach to apply the dimensions of the motivational traits assessment scale in sports (drive - aggression - determination - responsibility - leadership - self-confidence - emotional control - mental toughness - coachability - conscientiousness - trust) for Top-levels athletes.

3. Researchers:

Conducting more studies on sports motivational traits and their relationship to the rest of the mental processes or psychological skills that have not been studied in all sports activities.

**Keywords :** ( High level players)

### Introduction and Research problem:

Osama Kamel Ratib (2007) refers to motivation as one of the most important and interesting topics of psychology for all people. It is important to the father who wants to know why his child tends to withdraw in himself and reluctance to play with his peers and it is important for a sports educator to know the motives for individuals to practice sports so that he can use these motives to develop their performance in the best way. Performance is not fruitful and good unless it satisfies the motives of the individual. (2: 71) Mohamed Lotfy Taha (2002) affirms that motivation plays a very important role in sporting activity and that it can be emphasized that the most important conditions for enhancing the effectiveness of sports activity in competitions is to ration motivation in terms of its strength. (12: 62, 63)

Andreas Huber (2000) believes that some traits of motivation are inherited and others are acquired from the environment surrounding the individual. (17: 1)

Through the survey of studies and research dealt with sport motivation traits, such as the study of Mohsen Ali Abu Al-

Nour (1999) (8), Marwan Mustafa Rajab (2002) (13), Tariq Mohamed Badr Al-Din (2002) (4), Nabila Ahmed Mahmoud (2002) (14), Mohamed Abd Al-Hamid Bilal (2004) (11), Jean-Philippe Heuze (2006) (18), Amani Waheed Ibrahim and Sanaa Mahmoud Mamoun (2008) (3), Yasser Mohamed Hajar ( 2013) (15). By reviewing these studies, it becomes clear that there is no single study that examined the effect of practicing some sporting activities on the motivational traits of top-levels athletes to direct the training process and get benefit in designing training programs in (volleyball - hockey - handball).

### Research Objectives:

The research aims to identify the differences between the three sports activities (volleyball - hockey - handball) in the dimensions of the motivational traits assessment scale of Top-levels athletes.

### Research hypotheses:

There are differences between the three sports activities (volleyball - hockey - handball) in the dimensions of the motivational traits assessment scale of Top-levels athletes.

### Previous studies:

1. Nadia Mohamed Sultan and Nabila Ahmed Mahmoud study (1999), entitled "Leadership behavior of a sports coach and its relationship to the sports motivation traits of junior handball players in Alexandria Governorate." The study aims to identify the quality of the relationship between the leadership behavior dimensions of coaches and the sports motivation traits of handball junior girls under study. The two researchers used the descriptive approach (surveys). The study sample included 90 handball players. Data collection tools are (the measure of leadership behavior of the sport coach and motivational traits assessment scale). The most important results are the junior handball under study are distinguished by the following sports motivation traits (responsibility - conscientiousness - coaching status - trust - drive - leadership - self-confidence)
2. Marwan Mustafa Rajab's study (2002) entitled "Motivational traits and their relationship to the performance of Top-levels athletes in handball". The study aims to determine the quality of the relationship between the motivational traits Top-levels athletes in handball and their level of performance during matches. The researcher used the descriptive approach. The study sample consisted of the first group (the international athletes in the Arab teams participating in the World Handball Championship for Men in Cairo in 1999, 80 athletes) and the second group (local athletes participating in the general league championship season 1999/2000, 70 athletes). Data collection tools are (Motivational traits assessment scale, tests to determine the performance level of Top-levels athletes in handball). The most important result is the superiority of the local level over the international level in the traits of aggression and conscientiousness).
3. Amin Mohamed Sharif study (2017) entitled "Sports motivation traits and their relationship to the

characteristics of attention to playing situations among junior football players under 16 years of age." The study aims to identify the relationship between the sports motivation traits and the characteristics of attention to the playing situations of junior football players under 16 years old. The researcher used the descriptive approach. The study sample consisted of (55) junior football players under the age of 16 in Haras Al-Hodoud, Abu Qir for fertilizers, and Horses Owners clubs who are registered in the Alexandria region and participating in the Egyptian Football Federation championships. The data collection tools are (Motivational traits assessment scale and an attitude test to measure the characteristics of attention in football using a computer (designed by Amin Mohamed Sharif, 2008). The most important results are: There is a positive relationship between each of the dimensions of the Motivational traits assessment scale (drive - aggression - determination - responsibility - leadership - self-confidence - emotional control - coachability- mental toughness - conscientiousness - trust) and the total characteristics of attention to playing situations (concentration - distribution - shifting- amount - stability).

**Research procedures:**

**Research Methodology:**

The researcher used the descriptive approach using the survey method because it is relevant to the nature of the research.

**Research fields:**

**The human field:**

The research sample included (199) Top-levels athletes representing three sports (volleyball - hockey - handball) from first-class clubs in the Arab Republic of Egypt. The exploratory study was conducted on (21) athletes while the basic study was conducted on (178) Athletes as shown in the following table:

*Table (1)*

*The numerical description of the research sample according to the type of sporting activities distributed over the exploratory study and the basic study.*

Sport Activity	Total samples		The exploratory study		the basic study	
	Number	%	Number	%	Number	%
volleyball	62	31.16	6	9.68	56	90.32
hockey	71	35.68	7	9.86	64	90.14
handball	66	33.17	8	12.12	58	87.88
<b>Total</b>	<b>199</b>	<b>100</b>	<b>21</b>	<b>10.55</b>	<b>178</b>	<b>89.45</b>

From Table (1) of The numerical description of the research sample according to the type of sporting activities distributed over the exploratory study and the basic study, the total number of research sample was (199) Top-levels athletes, and the number of the exploratory sample was (21) athletes with a percentage (10.55%) of the total sample size while the basic sample was (178) athletes with a percentage (89.45%) of the total sample size.

**Inclusion Criteria of the sample:**

- To be a Top-levels athlete in the sports activities under study.

- To be registered in the Egyptian Federation
- To be regular in training

**Place field:**

Some clubs (Smouha - Al Ittihad Alexandria - Egypt Hockey Team, whose camp was established in Ismailia - Horse owners - Olympic - National Bank).

**Time field:**

- The exploratory study was conducted to calculate the scientific coefficients of the scale (truthfulness - stability) in the period from 1/12/2018 to 15/12/2018 for a period of two weeks.
- The basic study was carried out on a sample of (178) Top-levels athletes from 15/2/2019 to 22/4/2019, where all measures were applied to them, and the data were collected in the collection form to be treated statistically.

**Data collection methods and tools:****Motivational traits assessment scale:**

designed by "Tetco" and "Richard", quoted and modified by (Mohamed Hassan Allawi). The scale consists of (55) phrases that measure (11) traits (attachment 1) which are (drive, aggression, determination, responsibility, leadership, Self-confidence, emotional control, mental toughness, coachability, conscientiousness, trust) and the athlete answers the scale phrases on a 5-point scale (agree very much, agree, agree with medium degree, agree a little, agree very little).

**Scientific coefficients for the Motivational traits assessment scale:**

The exploratory study was conducted to calculate the scientific coefficients of the scale (truthfulness - stability) in the period from 1/12/2018 to 15/12/2018 for a period of two weeks.

**Truthfulness of the scale:***Table (2)*

*Table (2) The coefficient of internal consistency (the coefficient of correlation of the degree of the phrase with the total sum of the dimension to which the phrase belongs) for the phrases of dimensions of the Motivational traits assessment scale for high-level athletes (n = 21)*

Dimensions	Phrase No	Phrases	The coefficient of internal consistency
The first-dimension drive	5	My performance is better in the more difficult match than in the easy match.	0.7707 **
	16	I want to do anything to beat the opponent.	0.687 **
	27	I avoid challenging strong competitors.	0.738 **
	38	I do my best in the match to the extent that I avoid criticism from my coach.	0.731**
	49	Sometimes I don't try my best to perform during a match.	0.814**
The second-dimension aggression	1	I am an aggressive player in my playing	0.718**
	12	I fear the rival that is characterized by aggression.	0.706**
	23	I think I tend to get rough while playing.	0.636**
	34	To win the match, I must play rough and tough.	0.669**
	45	I like to play rough for the opponent to be afraid of me.	0.578**
The third-dimension determination	7	When things go wrong in the match, I give up easily.	0.772**
	18	In the match I think I put more effort than most of my team-mates.	0.642**
	29	I do train for additional periods outside of official training hours.	0.628**
	40	It seems that I am not trying my best in training or matches.	0.588**
	51	Sometimes I apologize for not training or participating in some matches for various reasons.	0.729**
The fourth-dimension responsibility	9	My team-mates describe me as someone who can take great responsibility.	0.705**
	20	I blame others for failing to perform in the competition.	0.644**
	31	I apologize for participating in competitors with strong competitors.	0.728**
	42	I avoid blaming my colleagues for making some mistakes.	0.665**
	53	If I was the cause of the defeat of my team, I willingly take the responsibility.	0.653**

Dimensions	Phrase No	Phrases	The coefficient of internal consistency
The fifth-dimension leadership	8	I have all the specifications to lead any team.	0.576**
	19	I prefer that others take charge of leading the team.	0.582**
	30	I tell my colleagues when they are underperforming.	0.742**
	41	I avoid taking leadership positions in the team because it causes stress.	0.595**
	52	I make every effort to guide my teammates.	0.572**
The sixth-dimension self- confidence	6	I have great confidence in my skills and in my physical fitness.	0.634**
	17	I am disturbed by what other people think of me.	0.664**
	28	I am not sure of my self-confidence.	0.722**
	39	I have a great deal of confidence in myself.	0.582**
	50	I believe in my ability to defeat any competitor.	0.808**
The seventh-dimension emotional control	3	I feel cramped when I'm performing poorly.	0.775**
	14	I get anxious and it becomes hard to return to my normal state when unexpected things happen in the match.	0.719**
	25	I can stay calm even though others annoy me.	0.667**
	36	I cannot control my emotions when some people do wrong things to me.	0.630**
	47	I can control my emotions at critical times in the match.	0.660**
The eighth-dimension mental toughness	4	I feel sensitive when my coach criticizes me.	0.656**
	15	I can do strenuous training several times a week.	0.661**
	26	It is difficult to continue vigorous training several times a week.	0.729**
	37	I quickly recover my normal condition after the match or after the coach criticized me.	0.740**
	48	I am someone who has been known to be stubborn during the match.	0.716**
The ninth dimension coachability	2	I consider training periods enjoyable and exciting.	0.629**
	13	Training is a real pleasure for me.	0.593**
	24	Repeated training sends me boredom.	0.610**
	35	I do not accept long-term training.	0.584**
	46	I consider myself an athlete who helps a coach during training.	0.734**
The tenth-dimension conscientiousness	11	I try to show friendliness to my coach so that he is satisfied with me.	0.608**
	22	I often feel dereliction when I lose a match.	0.652**
	23	I respect the team's rules and regulations even if it conflicts with my interests.	0.722**
	44	I ignore the team rules and regulations if they are not in my favor.	0.584**
	55	I feel happy when my team-mates excel during the match.	0.807**
The eleventh-dimension trust	10	I trust others easily.	0.702**
	21	I doubt others easily.	0.594**
	32	It is difficult for others to trust me for a reason I don't know.	0.716**
	43	It is Easy for others to trust me.	0.711**

\*\* Significant at level 0.01 = 0.537 \* significant at level 0.05 = 0.423

From Table (2) The coefficient of internal consistency (the coefficient of correlation of the degree of the phrase with the total sum of the dimension to which the phrase belongs) for the phrases of dimensions of the motivational traits assessment scale for high-level athlete, we find high values of internal consistency coefficients which ranged between (0.578 to 0.814) and these values are significant at the level of 0.01, which indicates the Truthfulness of the phrases of the dimensions of the motivational traits assessment scale for the Top-levels athletes, and that the phrases are Truthful and correlated to the total sum of the dimension and therefore they all measure what the dimension measures and therefore the phrases are characterized by Truthfulness.

#### Stability of the scale:

*Table (3)  
Cronbach's coefficient alpha for the dimensions of the motivational traits assessment scale for high-level athletes  
(n = 21)*

Dimensions	Cronbach's coefficient alpha	
	For the dimensions	For the scale
drive	0.789	0.886
aggression	0.761	
determination	0.776	
responsibility	0.758	
leadership	0.766	
Self-confidence	0.808	
emotional control	0.789	
mental toughness	0.741	
coachability	0.739	
conscientiousness	0.837	
trust	0.821	

From Table (3) of Cronbach's coefficient alpha for the dimensions of the motivational traits assessment scale for high-level athletes, it is noticed the high values of the Cronbach's coefficient alpha of the dimensions between (0.739 to 0.837) and these values are greater than 0.700, which confirms that the dimensions are stable and that they are as integrated contribute to building the axes and the value of coefficient alpha for the scale was (0.886), and this value is greater than the coefficient alpha of the dimensions, which confirms that the dimensions are homogeneous with each other and are stable and that they are as integrated contribute to building the scale and that any deletion or addition to any of these dimensions may negatively affect building the scale as a whole

#### The basic study:

The basic study was conducted on a sample of (178) Top-levels athletes in the period between the period from 15/2/2019 to 22/4/2019, where all measures were applied to them, and the data were collected in the collection form prepared for this to be treated statistically.

Statistical analysis:

To achieve the aim of the research and its hypotheses, the necessary data were collected and statistical analyzed using the SPSS statistical program to get:

- Measures of central tendency (arithmetic mean - standard deviation - median - flattening coefficient - Skewness coefficient)
- Pearson correlation coefficient.
- Cronbach's coefficient alpha
- Stepwise multiple regression coefficient.
- Prediction equations.

#### Results and Discussion:

**Table (4)**  
**Analysis of variance (ANOVA) between the three sports activities (volleyball - hockey - handball) in the dimensions of motivational traits assessment scale for high-level athlete**

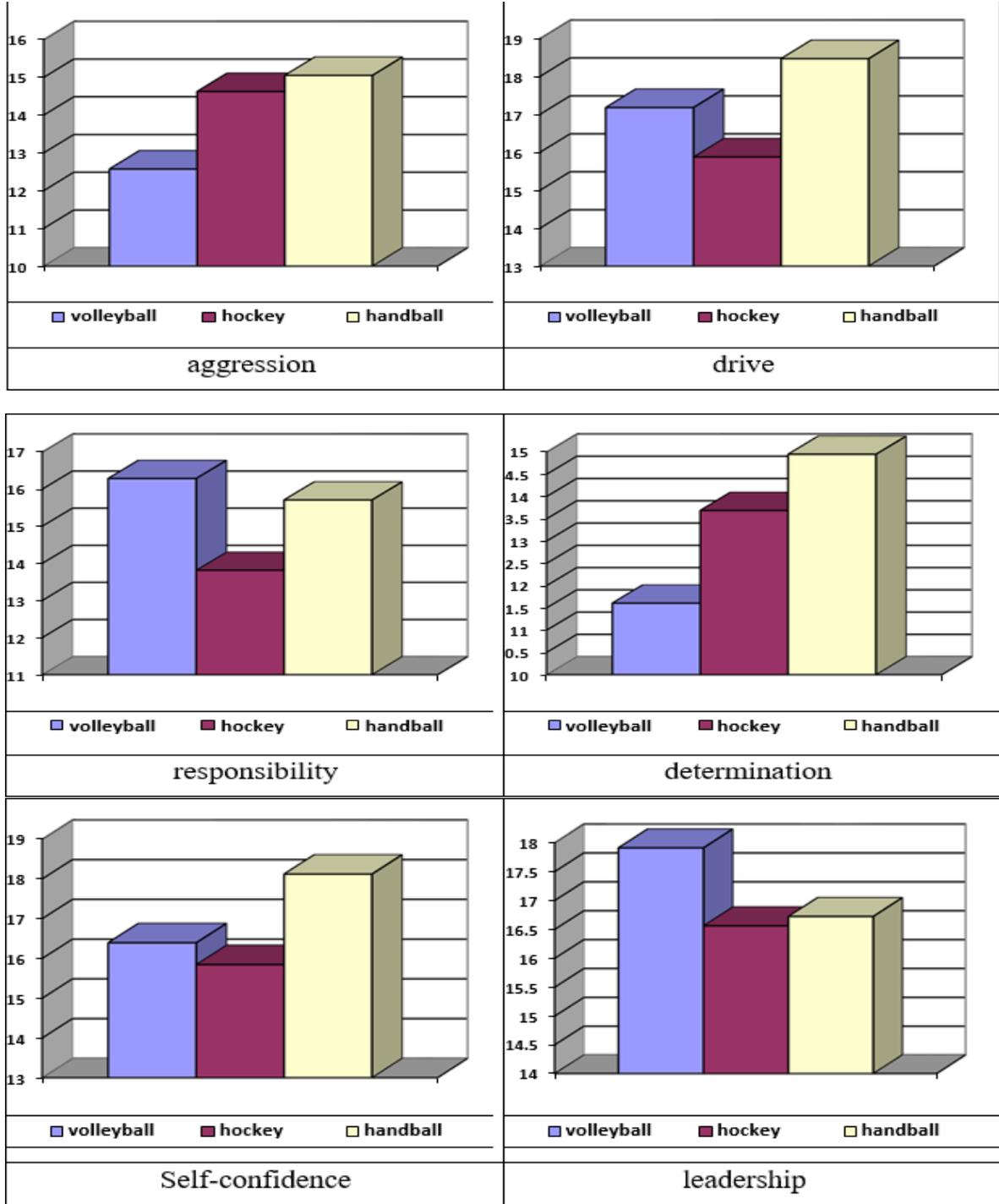
Dimensions	Source of variance	Degree of freedom	Sum of squares	Mean of squares	Value of T	Significant differences	Significance
drive	Between activities	2	204.38	102.19	11.94*	0.00	Sig.
	Inside activities	175	1497.65	8.56			
	Sum	177	1702.03				
aggression	Between activities	2	200.96	100.48	5.25*	0.01	Sig.
	Inside activities	175	3351.56	19.15			
	Sum	177	3552.52				
determination	Between activities	2	323.99	161.99	18.06*	0.00	Sig.
	Inside activities	175	1569.95	8.97			
	Sum	177	1893.94				
responsibility	Between activities	2	204.11	102.06	14.25*	0.00	Sig.
	Inside activities	175	1253.20	7.16			
	Sum	177	1457.31				
leadership	Between activities	2	62.83	31.42	3.66*	0.03	Sig.
	Inside activities	175	1503.89	8.59			
	Sum	177	1566.72				
Self-confidence	Between activities	2	168.66	84.33	11.39*	0.00	Sig.
	Inside activities	175	1295.95	7.41			
	Sum	177	1464.61				
emotional control	Between activities	2	112.47	56.23	11.00*	0.00	Sig.
	Inside activities	175	894.80	5.11			
	Sum	177	1007.26				
mental toughness	Between activities	2	115.22	57.61	5.83*	0.00	Sig.
	Inside activities	175	1728.81	9.88			
	Sum	177	1844.03				
coachability	Between activities	2	12.72	6.36	0.60	0.55	Non sig.
	Inside activities	175	1854.38	10.60			
	Sum	177	1867.10				
conscientiousness	Between activities	2	98.14	49.07	8.34*	0.00	Sig.
	Inside activities	175	1029.65	5.88			
	Sum	177	1127.78				
trust	Between activities	2	170.97	85.48	7.28*	0.00	Sig.
	Inside activities	175	2053.58	11.73			
	Sum	177	2224.54				

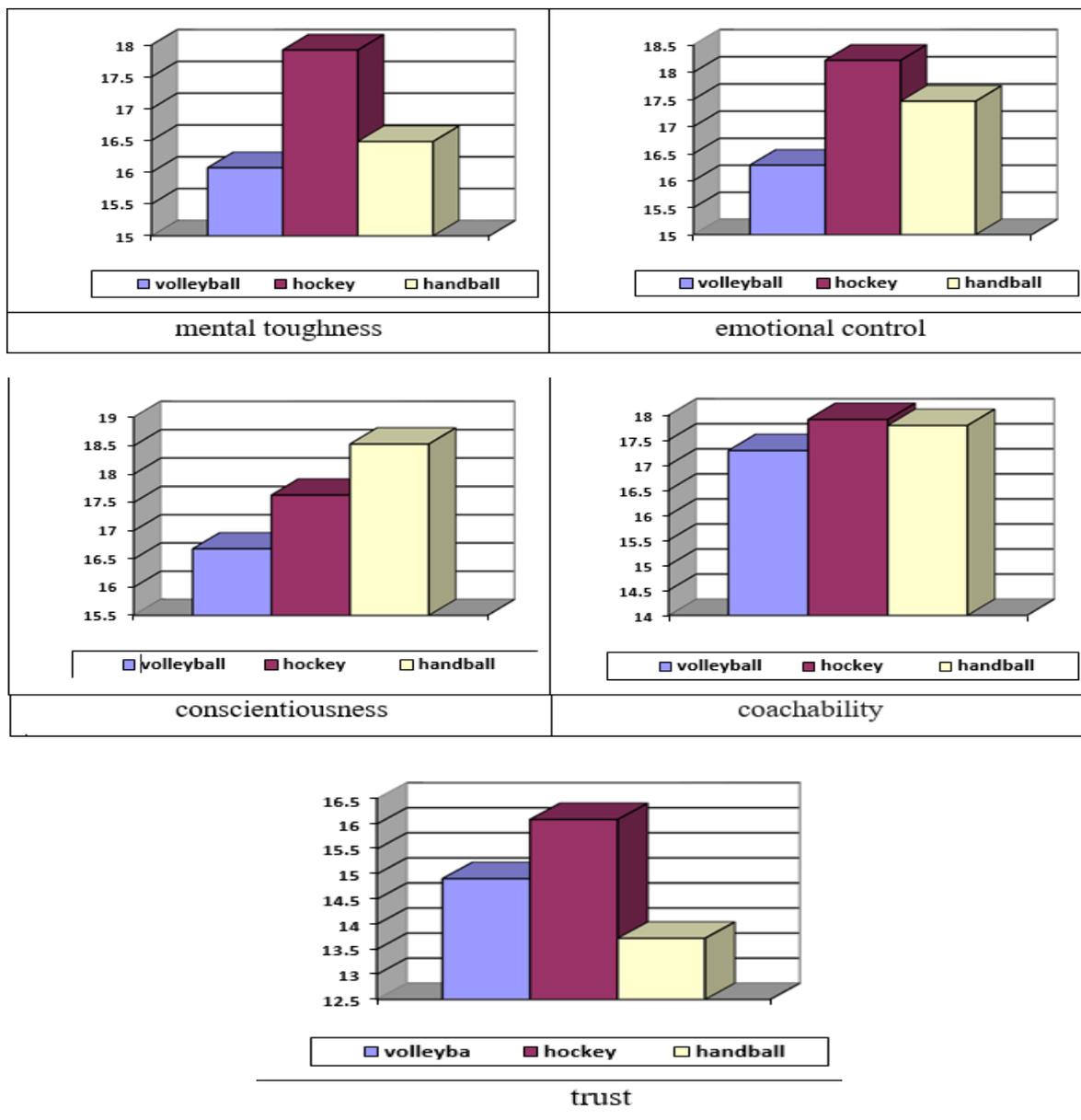
\* Significance at 0.05 = 3.06

From Table (4) Analysis of variance (ANOVA) between the three sports activities (volleyball - hockey - handball) in the dimensions of motivational traits assessment scale for high-level athlete, it noticed the presence of significant differences between the three sport activities (volleyball - hockey - handball) in all dimensions except for (coachability), where the value of F was between (3.66 to 18.06) and this value is greater than the tabulated value of (F) at the level of 0.05, and to

determine the significant differences among the three sports activities (volleyball - hockey - handball) in the dimensions of the motivational traits assessment scale for the Top-levels athletes, Scheffe test was used in Table (5)

*figure (1)  
the arithmetic means of the three sports activities (volleyball - hockey - handball) in the dimensions of Motivational traits assessment scale for Top-levels athletes*





**Table (5)**  
*Significance of the differences between the means of three sport activities (volleyball - hockey - handball) in the dimensions of motivational traits assessment scale for Top-levels athletes using (scheffe) test*

Dimensions	groups	Arithmetic mean	Standard Deviation	Significance of the differences between the means (scheffe) test.		
				volleyball	hockey	handball
stimulus	volleyball	17.18	2.57		1.30 *	1.29 *
	hockey	15.88	3.74			2.59 *
	handball	18.47	2.10			
aggression	volleyball	12.57	4.86		2.06 *	2.48 *
	hockey	14.63	4.5			0.42
	handball	15.05	3.7			
determination	volleyball	11.61	2.98		2.08 *	3.34 *

	hockey	13.69	3.03			1.26 *
	handball	14.95	2.97			
responsibility	volleyball	16.29	2.01		2.48 *	0.58
	hockey	13.81	3.03			1.90 *
	handball	15.71	2.82			
leadership	volleyball	17.91	2.5		1.35 *	1.19 *
	hockey	16.56	2.84			0.16
	handball	16.72	3.38			
Self-confidence	volleyball	16.39	2.97		0.55	1.73 *
	hockey	15.84	3.28			2.28 *
	handball	18.12	1.53			
emotional control	volleyball	16.29	2.3		1.93 *	1.18 *
	hockey	18.22	2.03			0.75
	handball	17.47	2.46			
toughness	volleyball	16.07	3.69		1.85 *	0.41
	hockey	17.92	2.67			1.44*
	handball	16.48	3.05			
trainability	volleyball	17.29	3.32		0.62	0.5
	hockey	17.91	3.45			0.12
	handball	17.79	2.95			
conscientiousness	volleyball	16.68	2.09		0.95 *	1.85*
	hockey	17.63	3.11			0.90*
	handball	18.53	1.78			
Trust	volleyball	14.91	3.14		1.18 *	1.19*
	hockey	16.09	3.17			2.37*
	handball	13.72	3.93			

From Table (5) and Figure (1) of Significance of the differences between the means of three sport activities (volleyball - hockey - handball) in the dimensions of motivational traits assessment scale for Top-levels athletes using (scheffe) test, we noted the following about the dimension

**Drive:** Handball athletes outperformed hockey and volleyball athletes significantly, and volleyball athletes outperformed hockey athletes significantly.

**Aggression:** Handball athletes and hockey athletes outperformed volleyball athletes significantly, and we did not show significant differences between hockey athletes and handball athletes.

**Determination:** Handball athletes outperformed hockey and volleyball athletes significantly, and volleyball athletes outperformed hockey athletes significantly

**Responsibility:** Handball athletes and volleyball athletes outperformed the hockey athletes significantly, and there were no significant differences between volleyball athletes and handball athletes.

**Leadership:** Volleyball athletes outperformed hockey athletes and handball athletes significantly, and there were no significant differences between the hockey athletes and the handball athletes.

**Self-confidence:** Handball athletes outperformed hockey athletes and volleyball athletes significantly, and there were no significant differences between volleyball athletes and hockey athletes.

**Emotional control:** Handball athletes and hockey athletes outperformed volleyball athletes significantly and no significant differences were found between handball athletes and hockey athletes.

**Mental toughness:** Hockey athletes outperformed volleyball athletes and handball athletes significantly, and there were no significant differences between handball athletes and volleyball athletes.

**Conscientiousness:** Handball athletes outperformed hockey and volleyball athletes significantly, and hockey athletes outperformed volleyball athletes significantly.

**Trust:** Hockey athletes outperformed volleyball athletes and handball athletes significantly, and volleyball athletes outperformed handball athletes significantly.

The researcher believes that the sports motivational traits are important during the practice of sports activities (volleyball - hockey - handball) for Top-levels athletes, where Mohamed Hassan Allawi (2001) indicates that the mental toughness trait of the athlete appears in his ability to face difficulties and not regress in cases of defeat or unsuccessful in the match. (9: 185)

Ahmed Amin Fawzy (2006) explains that the motivation is an external issue that has a real physical or intangible existence and is in the form of a reward that is announced before the start of the sporting behavior to stimulate it. Motivation is also provided after the desired behavior is accomplished to reinforce it and increase the likelihood of it appearing in the following similar situations (1: 101)

One of the important traits is the conscientiousness, where Mohamed Hassan Allawi (1998) pointed out that a person who attains a high degree in this trait should practice things

properly whenever possible and always be dominated by a sense of duty and this type of athlete does not flatter his coach. (10:19) Osama Kamel Ratib (2007) indicates that there are sports activities that encourage direct aggression to a limited degree. Examples of these sports activities are football, basketball, water polo, handball, where it is noticed that the player in such sports activities learns how to obstruct his opponent. Some aggressive responses are within the limits of the rules and laws of the game or sport. (2: 214)

The emotional control trait is important for Top-levels athletes under study, where Mohamed Hassan Allawi (2001) states that the self-control trait means the ability to control the individual's behavior during situations characterized by strong emotional arousal. (9: 182)

Osama Kamel Ratib (2007) noted that the leadership trait is important, as it identifies the stars who are very popular in the team, and they are considered as leaders who can influence the group, and they can take responsibilities in the team. (2: 393)

Magdy Hassan Youssef (2014) explained that self-confidence in the sports field is the confidence associated with the performance in the sports activity, and it is a degree of certainty for a player that he can be successful in sports competitions. (7: 141)

Singer (1984) asserted that the player's confidence in achieving of goals during his training program increases his motivation and thus his self-confidence. (20:16)

Trust is important for high-level athletes. Mohamed Hassan Allawi (1998) pointed out that an athlete who has this trait is characterized by trusting what his coach and teammates say. (10:20)

Ahmed Amin Fawzy (2006) states that a player who can emotional control will not be exposed to tension that prevents him from achieving his best possible sports performance. (1: 266)

Emad Samir Mahmoud (2014) noted that the players have responsibilities and tasks for the success of the team, so the player must be familiar with the rules and laws of the game so that he can understand the reason for the referees making their decisions during the match. (6: 159)

Mohamed Hassan Allawi (1998) confirmed that coachability shows the extent of the athlete's appreciation and respect for the coach and the training process, and the extent of the athlete's compliance with the coach's advice and appreciation for training. (10:19)

Abdel Hakim Rizk Abdel Hakim and Ahmed Abdo Hassan (2015) affirm that the trait of mental toughness and determination can be developed by assigning junior athletes to perform some tasks that can only be achieved by using such traits. (5: 117)

The researcher believes that it is necessary for Top-levels athletes (volleyball - hockey - handball) to have a great deal of (drive - aggression - determination - responsibility -

leadership - self-confidence - emotional control - mental toughness - coachability - conscientiousness - trust) according to the nature of each sport activity.

#### **The conclusion:**

1. The presence of significant differences between the three sports activities (volleyball - hockey - handball) in all dimensions except (coachability)
2. In Drive dimension: Handball athletes outperformed hockey and volleyball athletes significantly, and volleyball athletes outperformed hockey athletes in a significant way.
3. In Determination dimension: Handball athletes outperformed hockey and volleyball athletes significantly, and volleyball athletes outperformed hockey athletes significantly.
4. In Responsibility dimension: Handball athletes and volleyball athletes outperformed the hockey athletes significantly, and there were no significant differences between volleyball athletes and handball athletes.
5. In Self-confidence dimension: Handball athletes outperformed hockey athletes and volleyball athletes significantly, and there were no significant differences between volleyball athletes and hockey athletes.
6. In Trust dimension: Hockey athletes outperformed volleyball athletes and handball athletes significantly, and volleyball athletes outperformed handball athletes significantly.
7. In Mental toughness: Hockey athletes outperformed volleyball athletes and handball athletes significantly, and there were no significant differences between handball athletes and volleyball athletes.

#### **Recommendations:**

In light of the conclusions reached in this research, the researcher recommends the following:

1. The Egyptian Federations for Sports Activities under study: The necessity of the presence of a sports psychologist to develop the sports motivation traits within each team (volleyball - hockey - handball).
2. coaches of high-level athletes (under study): It is necessary for the coach to apply the dimensions of the motivational traits assessment scale in sports (drive - aggression - determination - responsibility - leadership - self-confidence - emotional control - mental toughness - coachability - conscientiousness - trust) for Top-levels athletes.
3. Researchers: Conducting more studies on sports motivational traits and their relationship to the rest of the mental processes or psychological skills that have not been studied in all sports activities.
4. Top-levels athletes (under study): It is necessary Top-levels athletes to pay attention to coaches' instructions, which helps to improve sports motivational traits in the sports activities under study (volleyball - hockey - handball).

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