

# How do psychological characteristics influence the sports performance of men and women? A study in school sports

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## ABSTRACT

This study evaluates the psychological characteristics in sports performance according to gender and sports modality practiced in school sports. In addition, the possible correlations between the variables of the questionnaire of Psychological Characteristics related to Sports Performance (CPRD) (Gimeno, Buceta & Pérez-Llantada, 1994) are determined in men and in women. The research follows a quantitative methodology of descriptive cut, through the survey. The sample size is 816 young athletes between 12 and 18 years old (411 men and 405 women), who practice different individual and collective sports in the Spanish region of Castilla-La Mancha. The results show statistically significant differences in the psychological characteristics of stress control and influence of performance evaluation, in which men obtain higher scores than women. Besides, the results show, in relation to the psychological characteristics of the men and the practiced sport modality, that there are statistically significant differences in the dimensions Mental Ability and Team Cohesion. Finding these differences of Mental Ability between men who practice Football (lower scores) and those who practice Swimming and Athletics (higher scores). Regarding the differences in Team Cohesion, they are among male sportsmen who practice Football (lower scores) and those who practice Volleyball (higher scores). However, the results show, that there are no statistically significant differences between the sports modality practiced and the female gender. Prevention measures are needed by coaches / educators, parents and young athletes, in order to strengthen their levels of self-confidence, and

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simultaneously reduce stress levels generated in sport at school age, to ensure an improvement in sports performance. **Keywords:** Sports psychology; Gender; Sports modalities; Young athletes.

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## INTRODUCTION

Nowadays, psychological demands are huge in competitive sport. Thus, psychological variables such as motivation, stress, self-confidence, the level of general activation, attention or team cohesion, have a close relationship with the performance, health and well-being of athletes. In fact, the main objective of psychological intervention in this context is to control these variables in the most appropriate direction (Freitas, Dias & Fonseca, 2013; Weinberg & Gould, 2011).

The psychological evaluation aims to collect information by various procedures, in order to facilitate the establishment of relevant relationships between causes and effects, helping to understand the reality, guiding the most appropriate intervention to maintain or modify it, and contributing to assess the progress of the athletes, after a sport, organizational or psychological intervention. In addition, it seeks to favour a more rigorous and objective style of operation, based on the hypothesis setting, the use of appropriate procedures to gather information, obtaining and analysing data, and in many cases, the active participation of athletes (Gimeno & Buceta, 2010).

Functional analysis is a key element in the evaluation process. When it comes to analysing the psychological experience of athletes, the central axis of the analysis are the psychological characteristics related to sports performance (motivation, stress control, influence of performance evaluation, mental ability and team cohesion). These psychological characteristics are manifested in a certain way that should be specified as best as possible, constituting the response or psychological behaviour that is intended to analyse. As can be seen, these main psychological characteristics are related to others that affect them (for example, within the psychological characteristic self-confidence, the perception of control) or have different components that, in turn, make up other psychological characteristics (for example, basic motivation and daily motivation) (Gimeno & Buceta, 2010).

One of the main interests of the study is that, although there have been several investigations focused on the analysis of psychological characteristics in elite sport, there is, however, a small number of studies that analyse the main psychological characteristics globally that intervene in sport at school age.

Therefore, the limited number of specific investigations in this context and the interest in a sport with a clearly educational orientation, justify the reason for the present investigation. In addition, possible correlations between the main psychological characteristics that influence the performance of the athlete (stress control, motivation, influence of performance evaluation, mental ability and team cohesion) are determined in both genders.

The general objective of this study is to analyse the main psychological characteristics that influence sport at school age in students between 12 and 18 years of age in the Autonomous Community of Castilla-La Mancha. The specific objectives of the study can be specified in the following:

- Analyse the psychological characteristics of men in sports performance, depending on the sport practiced.
- Analyse the psychological characteristics of women in sports performance, depending on the sport practiced.
- Determine the possible correlations between the variables of the CPRD questionnaire among men.
- Determine the possible correlations between the variables of the CPRD questionnaire among women.

The main hypothesis of the present work would be that there are statistically significant differences in the way of perceiving and dealing with the different psychological characteristics most influential in school sports between men and women. In addition, there are statistically significant differences by gender in the correlations between the variables of the CPRD questionnaire.

## **MATERIAL AND METHODS**

The research followed a quantitative methodology of descriptive cut. In the development of the methodology, the procedures followed were those of the survey, since the application of a standardized procedure for collecting information was carried out through questions about the sample of the population studied (Lussier & Kimball, 2008).

### ***Participants***

To estimate the general universe of the study, indirect lists were used, which make it possible to use sample units, due to the lack of a specific census of people between 12 and 18 years old who practice sports in a club and / or sports school in Castilla la Mancha. It was necessary to use indirect lists to establish the universe of work for this population of studies, since the identification and location of the units from which the information is obtained is very complex. The lists used in this investigation were the following:

List by age and gender in each of the five provinces of the Autonomous Community of Castilla-La Mancha (National Institute of Statistics, One of July 2013).

List of municipalities and population of the Autonomous Community of Castilla-La Mancha (National Institute of Statistics, One of January 2012).

From these lists and the values obtained, a total of approximately 147166 people were added, constituting the total of the population under study. The sample registered the following characteristics: The questionnaire was administered to 816 athletes (411 men and 405 women) (50.4% males and 49.6% females) between 12 and 18 years old (272 athletes of 12 and 13 years old, 272 athletes of 14 and 15 years old and 272 athletes from 16 to 18 years old) belonging to clubs and / or sports schools of Castilla-La Mancha.

For the calculation of the size of the sample, several aspects were considered: the population was infinite; the worst cases scenario was used in the population variance where "P" and "Q" were equal with 50% each; the confidence interval was 95.5%, with a margin of error of + 3.55%. The affixation of the sample was proportional to the distribution of people according to the demographic size of the municipalities and according to the geographical situation of the different provinces of Castilla-La Mancha.

In addition, several sub-samplings were carried out to disperse the sample and to have a positive influence on the accuracy of the estimates. Likewise, it was decided to interview a maximum of two teams under study in each club and / or sports school. When carrying out this procedure, the sample was dispersed and had a positive influence on the accuracy of the estimates, with the sample error decreasing.

The type of sampling used was random sampling by conglomerates, within which a multistage sampling was used, stratified in the first phase by conglomerates, since a sequence of stages was followed (applying a random sampling in each one of the stages) of selection of sample units (conglomerates) from higher to lower rank, until reaching the constituent individuals of the sample (Cea D'Ancona, 2001).

### **Measures**

The instrument used in the study was the questionnaire Psychological Characteristics related to Sports Performance (CPRD) by Gimeno et al. (1994). These authors created it in order to have a similar tool in the context of Spanish athletes, the questionnaire Psychological Skills Inventory for Sports (PSIS) of Mahoney, Gabriel and Perkins (1987). This instrument is composed of 55 items grouped into 5 dimensions: stress control; motivation; influence of performance evaluation; mental ability and team cohesion. It has a high internal consistency ( $\alpha = .85$ ), a value higher than .70 proposed by Nunnally (1978). In addition, this instrument has been and continues to be used in numerous investigations.

The CPRD questionnaire retains the five-point Likert type response format of the PSIS questionnaire, but with the inclusion of an additional response option for those cases in which the athlete "does not understand the item", in order to avoid responses "in white" or in the central position. It consists of closed and categorized questions, where the order of them is inflexible. In addition, some of them are control (to check the consistency and sincerity of the answers of the interviewee) and others of battery (set of questions on the same question that complement each other).

### **Procedures**

After obtaining the approval of collaboration on the part of the coaches, and / or presidents of the sports clubs and schools participating in the study, as well as the written informed consent of the parents of the young athletes, the questionnaires were answered by the young athletes collectively and anonymously in the sports facility. The researchers were present during the administration of the tests to clarify possible doubts and verify the independent completion by the participants.

### **Analysis**

To carry out the statistical analysis, the SPSS program v.22.0 (SPSS Inc., USA) was used. Descriptive and inferential statistics tests were used. In the descriptive statistics, statistical data of frequency such as: mean and standard deviations were found.

In the inferential statistics, to verify the normality of the distributions, the Kolmogorov-Smirnov test was used. In the variables that fulfilled a normal distribution, as an inferential test we used the student's t test for independent samples and one-way ANOVA in order to analyse the relationship between the variables. Likewise, the Levene test was used to evaluate the homogeneity of the variances, using the statistical criterion of significance of  $p < .05$ .

## **RESULTS**

At first, in Table 1, it can be observed that there are differences of means in all psychological characteristics in sports performance according to gender. The inter-sample differential analysis of the CPRD according to the gender performed by the T test showed significant differences in the stress control dimension ( $p = .00$ ), in which the male athletes obtained higher average scores ( $M = 3.47$ ;  $SD = .59$ ) respect to the female athletes ( $M = 3.30$ ;  $SD = .59$ ), and in the influence of performance evaluation dimension ( $p = .01$ ), in which the male athletes obtained higher average scores ( $M = 3.24$ ;  $SD = .70$ ) respect to the female athletes ( $M = 3.12$ ;  $SD = .66$ ) (Table 2).

When analysing the psychological characteristics of men in sports performance based on the sport practiced, in Table 3, we observe that it is the men who practice Futsal, those who have greater motivation ( $M = 3.94$ ;  $SD = .69$ ), those who practice Handball have greater stress control ( $M = 3.59$ ;  $SD = .65$ ), those who practice

Football present a greater influence of performance evaluation ( $M = 3.39$ ;  $SD = .76$ ), along with the Athletes who play Basketball ( $M = 3.39$ ;  $SD = .55$ ). On the other hand, it is the Swimmers who obtain the highest score in what mental ability is concerned ( $M = 3.55$ ;  $SD = .45$ ). Finally, the athletes with the greatest team cohesion are the Volleyball players ( $M = 4.08$ ;  $SD = .43$ ). In addition, we observe that there are statistically significant differences in Mental Ability,  $F(8,400) = 2.394$ ,  $p = .01$  and Team Cohesion,  $F(8,402) = 2.275$ ,  $p = .02$  (Table 4). Finding these differences in Mental Ability between men who practice Football (lower scores) and those who practice Swimming and Athletics (higher scores).

Table 1. Descriptive statistics of CPRD according to gender

	Gender	N	Mean	SD	Typical error
Motivation	Male	411	3.6852	.66370	.03282
	Female	405	3.7614	.63340	.03151
Stress Control	Male	411	3.4733	.59744	.02972
	Female	405	3.3020	.59171	.02966
Influence of Performance Evaluation	Male	411	3.2412	.70049	.03464
	Female	405	3.1267	.66755	.03346
Mental Ability	Male	411	3.4124	.47829	.02365
	Female	405	3.4096	.44307	.02229
Team Cohesion	Male	411	3.8970	.54344	.02681
	Female	405	3.9588	.51805	.02574

Regarding the differences in Team Cohesion, they are among men who practice Football (lower scores) and those who practice Volleyball (higher scores).

Table 5 shows the correlations between the CPRD variables in men. The Motivation correlates significantly and positively with all the variables ( $p = .00$ ). Regarding Stress Control, it correlates significantly and positively with the other variables ( $p = .00$ ), except with team cohesion. Regarding the Influence of Performance Evaluation on the part of the trainers, companions, etc., it correlates positively and significantly with motivation ( $r = .253$ ;  $p = .00$ ) and stress control ( $r = .724$ ;  $p = .00$ ). On the other hand, Mental Ability correlates significantly and positively with the other variables ( $p = .00$ ), except with the influence of performance evaluation. Finally, Team Cohesion correlates positively and significantly with motivation ( $r = .317$ ;  $p = .00$ ) and mental ability ( $r = .274$ ;  $p = .00$ ).

When analysing the psychological characteristics of women in sports performance based on the sport practiced, in Table 6 we observe that girls who practice Football have a greater motivation ( $M = 3.85$ ;  $SD = .73$ ), those who practice Athletics have a greater stress control ( $M = 3.43$ ;  $SD = .51$ ). On the other hand, it is the Volleyball players who have the highest scores in influence of performance evaluation ( $M = 3.20$ ;  $SD = .71$ ). Regarding mental ability, girls who practice Futsal get the highest scores ( $M = 3.55$ ;  $SD = .49$ ). The athletes with the highest team cohesion are the Handball players ( $M = 4.07$ ;  $SD = .43$ ) followed by Football ( $M = 4.04$ ;  $SD = .51$ ) and Volleyball players ( $M = 4.04$ ;  $SD = .53$ ). Finally, it is observed that there are no statistically significant differences between the sports practiced and the girls (Table 7).

Table 2. T-Student to relate CPRD and gender

		Levene test		Test T for equality of means						
		F	Sig.	t	gl	Sig.	Difference (bilateral)	Typical of the difference	95% Confidence interval for the difference	
									Lower	Upper
Motivation	Equal variances	.562	.454	-1.675	811	.094	-.07624	.04551	-.16557	.01309
	No equal variances			-1.676	810.042	.094	-.07624	.04550	-.16555	.01307
Stress Control	Equal variances	.117	.732	4.078	800	.000	.17126	.04199	.08883	.25369
	No equal variances			4.078	799.977	.000	.17126	.04199	.08883	.25368
Influence of Performance Evaluation	Equal variances	.000	.994	2.377	805	.018	.11456	.04819	.01997	.20916
	No equal variances			2.379	804.650	.018	.11456	.04816	.02003	.20910
Mental Ability	Equal variances	1.744	.187	.087	802	.931	.00282	.03254	-.06106	.06671
	No equal variances			.087	800.618	.931	.00282	.03250	-.06097	.06662
Team Cohesion	Equal variances	1.111	.292	-1.664	814	.097	-.06185	.03718	-.13482	.01113
	No equal variances			-1.664	813.109	.096	-.06185	.03716	-.13480	.01110

Table 8 shows the correlations between the CPRD variables in women. The Motivation correlates significantly and positively with all the variables ( $p = .00$ ). Regarding Stress Control, it correlates significantly and positively with the other variables ( $p = .00$ ), except with team cohesion. Regarding the Influence of Performance Evaluation by coaches, partners, etc., correlates positively and significantly with motivation ( $r = .238$ ,  $p = .00$ ) and stress control ( $r = .638$ ,  $p = .00$ ) and, significantly, but in a negative way, with team cohesion ( $r = -.160$ ;  $p = .00$ ). The Mental Ability correlates significantly and positively with all the variables ( $p = .00$ ), except with the influence of performance evaluation. Finally, Team Cohesion correlates significantly and positively with motivation ( $r = .242$ ,  $p = .00$ ) and mental ability ( $r = .256$ ;  $p = .00$ ), and significantly and negatively with the influence of performance evaluation ( $r = -.160$ ;  $p = .00$ ).

Table 3. Descriptive statistics of CPRD in men according to the sports modality

Sport Modality		Motivation	Stress Control	Influence of Performance Evaluation	Mental Ability	Team Cohesion
Basketball	X	3.82	3.53	3.39	3.40	3.98
	N=41 DT	0.54	0.53	0.55	0.49	0.36
Handball	X	3.72	3.59	3.37	3.44	3.74
	N=41 DT	0.78	0.65	0.79	0.53	0.68
Football	X	3.70	3.58	3.39	3.17	3.71
	N=41 DT	0.64	0.57	0.76	0.37	0.76
Futsal	X	3.94	3.40	3.21	3.47	4.02
	N=41 DT	0.69	0.60	0.59	0.52	0.58

Volleyball	X	3.73	3.47	3.24	3.41	4.08
N=40	DT	0.56	0.54	0.74	0.53	0.43
Athletics	X	3.62	3.47	3.27	3.48	3.91
N=44	DT	0.72	0.67	0.64	0.50	0.48
Judo	X	3.58	3.44	3.09	3.46	3.83
N=81	DT	0.70	0.63	0.75	0.43	0.52
Swimming	X	3.53	3.46	3.23	3.55	3.98
N=40	DT	0.55	0.59	0.70	0.45	0.47
Tennis	X	3.63	3.37	3.13	3.29	3.89
N=42	DT	0.66	0.55	0.68	0.45	0.43
Total						
N= 411						

Table 4. One-way ANOVA of CPRD in men according to the sports modality

		Sum of squares	gl	Half quadratic	F	Sig.
Motivation	Inter-groups	5.557	8	.695	1.595	.124
	Intra-groups	174.164	400	.435		
	Total	179.721	408			
Stress Control	Inter-groups	1.834	8	.229	.638	.746
	Intra-groups	142.012	395	.360		
	Total	143.846	403			
Influence of Performance Evaluation	Inter-groups	4.917	8	.615	1.259	.263
	Intra-groups	195.280	400	.488		
	Total	200.198	408			
Mental Ability	Inter-groups	4.264	8	.533	2.394	.016
	Intra-groups	89.069	400	.223		
	Total	93.333	408			
Team Cohesion	Inter-groups	5.244	8	.655	2.275	.022
	Intra-groups	115.840	402	.288		
	Total	121.084	410			

Table 5. Correlations between the CPRD variables in men

		Motivation	Stress Control	Influence of Performance Evaluation	Mental Ability	Team Cohesion
Motivation	Pearson correlation	1	.406**	.253**	.329**	.317**
	Sig. (bilateral)		.000	.000	.000	.000
	N	409	403	407	407	409
Stress Control	Pearson correlation	.406**	1	.724**	.216**	.044
	Sig. (bilateral)	.000		.000	.000	.377
	N	403	404	403	403	404
Influence of Performance Evaluation	Pearson correlation	.253**	.724**	1	.064	-.040
	Sig. (bilateral)	.000	.000		.201	.421
	N	407	403	409	407	409
Mental Ability	Pearson correlation	.329**	.216**	.064	1	.274**
	Sig. (bilateral)	.000	.000	.201		.000
	N	407	403	407	409	409
Team Cohesion	Pearson correlation	.317**	.044	-.040	.274**	1
	Sig. (bilateral)	.000	.377	.421	.000	
	N	409	404	409	409	411

\*\* . The correlation is significant at the 0.01 level (bilateral).

Table 6. Descriptive statistics of CPRD in women according to the sports modality

Sport Modality		Motivation	Stress Control	Influence of Performance Evaluation	Mental Ability	Team Cohesion
Basketball	X	3.79	3.35	3.12	3.34	3.96
	N=41	DT	0.64	0.53	0.59	0.51
Handball	X	3.81	3.20	3.18	3.39	4.07
	N=41	DT	0.48	0.62	0.69	0.43
Football	X	3.85	3.38	3.16	3.51	4.04
	N=41	DT	0.73	0.75	0.68	0.51
Futsal	X	3.77	3.16	2.85	3.55	3.96
	N=41	DT	0.61	0.59	0.82	0.78
Volleyball	X	3.84	3.31	3.20	3.33	4.04

N=41	DT	0.60	0.55	0.71	0.46	0.53
Athletics	X	3.72	3.43	3.17	3.37	3.92
N=37	DT	0.47	0.51	0.63	0.42	0.45
Rhythmic	X	3.81	3.33	3.19	3.43	3.96
N=81	DT	0.72	0.57	0.62	0.48	0.43
Swimming	X	3.77	3.28	3.18	3.47	3.95
N=42	DT	0.58	0.61	0.58	0.52	0.51
Tennis	X	3.43	3.26	3.03	3.26	3.72
N=40	DT	0.66	0.59	0.69	0.44	0.47
Total						
N= 405						

Table 7. One-way ANOVA of CPRD in women according to the sports modality

		Sum of squares	gl	Half quadratic	F	Sig.
	Inter-groups	5.255	8	.657	1.659	.107
Motivation	Intra-groups	156.427	395	.396		
	Total	161.681	403			
	Inter-groups	2.232	8	.279	.794	.608
Stress Control	Intra-groups	136.766	389	.352		
	Total	138.998	397			
	Inter-groups	4.271	8	.534	1.203	.296
Influence of Performance Evaluation	Intra-groups	172.641	389	.444		
	Total	176.912	397			
	Inter-groups	2.839	8	.355	1.838	.069
Mental Ability	Intra-groups	74.508	386	.193		
	Total	77.347	394			
	Inter-groups	3.413	8	.427	1.609	.120
Team Cohesion	Intra-groups	105.012	396	.265		
	Total	108.425	404			

Table 8. Correlations between the CPRD variables in women

		Motivation	Stress Control	Influence of Performance Evaluation	Mental Ability	Team Cohesion
Motivation	Pearson correlation	1	.446**	.238**	.348**	.242**
	Sig. (bilateral)		.000	.000	.000	.000
	N	404	398	398	395	404
Stress Control	Pearson correlation	.446**	1	.638**	.227**	-.017
	Sig. (bilateral)	.000		.000	.000	.734
	N	398	398	394	391	398
Influence of Performance Evaluation	Pearson correlation	.238**	.638**	1	.019	-.160**
	Sig. (bilateral)	.000	.000		.710	.001
	N	398	394	398	391	398
Mental Ability	Pearson correlation	.348**	.227**	.019	1	.256**
	Sig. (bilateral)	.000	.000	.710		.000
	N	395	391	391	395	395
Team Cohesion	Pearson correlation	.242**	-.017	-.160**	.256**	1
	Sig. (bilateral)	.000	.734	.001	.000	
	N	404	398	398	395	405

\*\* The correlation is significant at the 0.01 level (bilateral).

## DISCUSSION

The results show, in relation to the psychological characteristics in sports performance according to gender, statistically significant differences in the stress control dimension, in which men obtain average scores higher than those of women. The fact that women show higher levels of anxiety than their peers in sports competition is a fact confirmed by the results obtained in the vast majority of previous studies (Arribas-Galarraga, Saies, Cecchini, Arruza & Luis-De-Cos, 2017; Bulbule & Kannur, 2014; Pozos, Preciado, Acosta, Aguilera & Delgado, 2014; Ujwala & Jigmat, 2011).

Therefore, the vast majority of studies indicate the existence of gender differences in the evaluation of stress control, identifying biological factors and role differences, as responsible for women manifesting levels of anxiety higher than men (O'Brien, Hanton & Mellalieu, 2003). In this sense, another possible reason may be that young women perceive that their bodies are looked at, commented on and evaluated by others due to physical changes of puberty that they experience (Linder, Grabe & Hyde, 2007). It is also linked to negative experiences that can lead women to abandon physical activity at these ages (Knowles, Niven & Fawcner,

2013). Likewise, other researchers in the field of sports, such as Cruz (2014) have joined these efforts to clarify the causes of these gender differences, arguing that sexual stereotypes of expression of anxiety may be more tolerant of women, there they manifest higher values than men. Thus, most of the researchers refer to the difference of roles and the greater tolerance and tendency of emotional expression, by women, as responsible for these results. However, in other studies no statistically significant differences were found according to gender (Singh, Rahaman & Singh, 2013).

In addition, men manifest a higher level of control over the influence of performance evaluation. A study with similar results was the one developed by Ruiz and Lorenzo (2008), in which women obtained lower scores with respect to men in influence of performance evaluation, although no statistically significant differences were observed. Likewise, as the influence of performance evaluation is a specific variable of stress control, it allows us to point out that these results are concordant with previous studies cited above, which indicated the existence of higher levels of concern and anxiety in women towards sport practice. The reasons for the fact that women are more concerned with performance evaluation can be diverse. One of them could be that men have greater opportunities in the competitive universe, a fact that would give them more experience, they risk more in learning, showing more confidence in their own abilities and corporal abilities, and, therefore, their levels would decrease of concern and stress in situations of evaluation of sports performance (Roveran & Altmann, 2016). In addition, high levels of competitive anxiety are related to women with a low level of self-confidence, which could undoubtedly explain these high levels of concern regarding performance evaluation (Navlet, 2012). However, in other studies (Caputo, Rombaldi & Da Silva, 2017; Rial, Marsilla, Isorna & Louro, 2013), no statistically significant differences were found regarding performance evaluation between both genders, pointing out, in addition, a low level and a clear deficit in this variable in both genders. Likewise, the study by González, Campos and Romero (2014) conducted with young footballers corroborated these results, since almost half of the respondents (48%) expressed their concern with the coach's decisions and more than two thirds (68%) expressed that they were affected by possible negative external evaluations in the face of their mistakes.

The results show, in relation to the psychological characteristics of men, based on the sport practiced, that there are statistically significant differences in the dimensions Mental Ability and Team Cohesion.

Finding these differences of Mental Ability between men who practice Football (lower scores) and those who practice Swimming and Athletics (higher scores). One possible cause could be that individual short-term sports such as Swimming and Athletics require greater automation and concentration in each of the movements, since having or not having an error directly translates into a greater or lesser degree success in the competition, so that the mental skill of essay or imagination practice is trained to a greater extent. For its part, in a collective sport such as Football, a personal error can be corrected by a partner, with the team company being a refuge and support (Dale, 2000). In this sense, the majority of the analysed studies stand out as a statistically significant difference, that there is a greater mental ability of imagination practice in outdoor team sports and in individual indoor sports, with respect to individual outdoor sports, where imagination practice is lower (Abma, Fry, Li & Relyea., 2002; Arvinen, Weigand, Hemmings & Walley, 2008; Gregg, Hall & Hanton, 2007; Kizildag & Tiryaki, 2012; Munroe, Hall, Fishburne & Shannon, 2005; Short, Tenute & Feltz, 2005). Other studies reveal greater imagination practice in indoor sports skills, with respect to outdoor sports skills (Beauchamp, Bray & Albinson, 2002; Vadocz, Hall & Moritz, 1997).

Regarding the differences in Team Cohesion, they are among men who practice Football (lower scores) and those who practice Volleyball (higher scores). These results could have their explanation, in that, in Volleyball, there is a clearer perception about the roles that each athlete plays, each of these roles being accepted by

the rest of the members. In addition, this sport traditionally gives greater importance to social cohesion, which may allow greater motivation to develop and maintain social relationships within the team, so that members perceive the existence of a reciprocal climate of support and security, in which all participate expressing their opinions and ideas, thus increasing their social cohesion, self-talk and self-efficacy (Nogueira, Novellino, Menezes & Ugrinowitsch, 2017; Zetou, Vernadakis, Bebetos & Makraki, 2012). Besides, Volleyball is a sport where the use of body language is very frequent, it is a sport with very narrow game space (81 square meters per team) and actions extremely rapid and dynamic, whose technical characteristics, tactics and logistics constantly allows nonverbal communication among the players (Raiola, 2010). All this, is reason, so that, in the study, in both genders, the sport of Volleyball is very prominent in terms of team cohesion. In other previous studies (Halbrook, Blom, Hurley, Bell & Holden, 2012; Losada, Rocha & Castillo, 2012), it is also pointed out that athletes who practice collective sports have higher scores in task cohesion and social cohesion, with respect to athletes who practice individual sports.

Finally, the results show, in relation to the psychological characteristics of women, according to the sport practiced, that there are no statistically significant differences between the various sports analysed and the female gender.

## CONCLUSIONS

The results of this study can have a practical sense, both for training and competition, since they allow to give a greater and better information to the coaches / educators of young athletes about emotions that are frequently related to competitive challenges and thus help to work skills and coping strategies so that the athlete achieves a better predisposition when facing the competition, improving their self-confidence, which will probably lead to a better performance. However, an essential measure is the adoption by coaches / educators, parents and young athletes, prevention measures and coping strategies, in order to strengthen their levels of self-confidence and simultaneously reduce the levels of stress and anxiety generated in sport at school age.

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