

## THE IMPACT OF COMPETITIVE ANXIETY AND PARENTAL INFLUENCE ON THE PERFORMANCE OF YOUNG SWIMMERS

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**ABSTRACT:** This study examines the relationship between competitive anxiety (in its cognitive and somatic components) and managerial behaviors, pressure, support, understanding, and the active involvement of parents in their children's sports activities. Thirty-seven competitive young swimmers with a mean age of 12.22 years were studied based on records of their athletic performance in two official competitions during the 2012-2013 season. To analyze the psychological variables, the athletes were administered the Spanish-adapted version of the *Sport Anxiety Scale (SAS-2)* and the *Parental Involvement in Sport Questionnaire (PISQ)*, with the effect size analyzed in terms of gender and the performance of the swimmers. The results show the influence of competitive anxiety on performance, mostly centered in the worry, and gender differences, but no significant relation to parental influence was found.

**KEYWORDS:** Competitive anxiety, young swimmers, parental influence, performance.

## EL IMPACTO DE LA ANSIEDAD COMPETITIVA EN EL RENDIMIENTO DE JÓVENES NADADORES

**RESUMEN:** En este estudio analizamos la relación entre la ansiedad competitiva (en sus componentes cognitivos y somáticos) y los comportamientos de gestión, la presión, el apoyo, la comprensión y la participación activa de los padres en las actividades deportivas de sus hijos. Treinta y siete jóvenes nadadores de competición, con una edad media de 12.22 años fueron estudiados utilizando los registros de su rendimiento deportivo en dos competiciones oficiales durante la temporada 2012-2013. Para analizar las variables psicológicas a los atletas se les administró la versión española adaptada de la Escala de Ansiedad Deporte (SAS-2) y la participación de los padres en el Deporte Cuestionario (PISQ), el tamaño del efecto se analiza en términos de género y el rendimiento de los nadadores. Los resultados muestran la influencia de la ansiedad competitiva, centrada en la preocupación por el rendimiento; y diferencias de género, pero no se encontró ninguna relación significativa a la influencia de los padres.

**PALABRAS CLAVE:** ansiedad competitiva, jóvenes nadadores, influencia de los padres, rendimiento.

## O IMPACTO DA ANSIEDADE COMPETITIVA NO DESEMPENHO DO JOVENS NADADORES

**RESUMO:** Este estudo analisa a relação entre ansiedade competitiva (nas suas componentes cognitivas e somáticas) e comportamentos gerenciais, pressão, apoio, compreensão e o envolvimento activo dos pais em atividades esportivas de seus filhos. Trinta e sete jovens nadadores competitivos, com média de idade de 12,22 anos foram estudadas com base nos registros de seu desempenho atlético em duas competições oficiais durante a temporada 2012-2013. Para analisar as variáveis psicológicas, os atletas foram administradas a versão em espanhol adaptado da Escala de Ansiedade no Esporte (SAS -2) e o Envolvimento dos Pais no Esporte Questionnaire (PISQ), com o tamanho do efeito analisado em termos de género e do desempenho do nadadores. Os resultados mostram a influência da ansiedade competitiva no desempenho, principalmente centrada na preocupação, e as diferenças de género, mas sem relação significativa com a influência dos pais.

**PALAVRAS CHAVE:** Ansiedade competitiva, os jovens nadadores, a influência dos pais de desempenho.

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Competitive anxiety is a common research topic that is very relevant in the psychology of sport (Duda & Hall, 2001; Hanton, Neil, & Mellalieu, 2008), especially with regard to its influence on the performance of athletes in competition. Anxiety reaction is a negative emotional state characterized by high activation levels of the autonomic nervous system, stress, worry, and auto-

oriented cognitions that can alter attentional processes and other cognitive functions (Cervantes, Rhodes, & Capdevila, 2009; Smith, 2008; Smith, Smoll, & Passer, 2002). These responses depend critically on the athlete's perception of a situation as challenging, potentially dangerous, or harmful (Smith, 1989), and in some aspects can be considered as a similar cognitive step as

the situational appraisal stressed by Lazarus and Folkman coping framework (Lazarus, 1966).

Specifically, in the arena of sports, the definition of anxiety has been expanded by the establishment of two levels of response, which are cognitive and somatic anxiety (Molina, Sandín, & Chorot, 2014; Ramis, Torregrosa, Viladrich, & Cruz, 2010). Somatic anxiety is constituted by changes in the autonomic nervous system: acceleration of cardiac and respiratory rhythms; peripheral vasoconstriction and pallor; sweating; gastric movements; and muscle hypertonia. This physical component of anxiety is the direct result of increased physiological arousal (Cheng, Hardy, & Markland, 2009).

Psychological manifestations such as fear, panic, alarm, restlessness, apprehension, obsessions, attentional and concentration changes, or catastrophic type intrusive thoughts (Cervello, Santos-Rosa Jimenez, Nerea, & Garcia, 2002) make up cognitive anxiety, which in turn is split into two components (Smith, Smoll, & Schultz, 1990). The first is preoccupation or worry regarding the potential negative consequences associated with a poor performance. The second is lack of attention, i.e., the difficulty an athlete faces in focusing on the key aspects of the task at hand, which prevents clear thinking during the competition (Grossbard, Smith, Smoll, & Cumming, 2009).

Both types of anxiety, somatic and cognitive, are now understood to be modulated by their interpretation by the athlete, who may even believe them to be beneficial to his performance (Garcia-Mas et al., 2011; Montero et al., 2012), indeed considering the trait-state framework (Ries, Castañeda, Campos, & Del Castillo, 2012). However, it is known that the directional component of anxiety depends on various factors, such as the preceding and temporal patterns of response to the anxiety, the nature of the competition (Hanton, Jones, & Mullen, 2000), and the nature of trait anxiety as a function of the gender and technical skill of the athlete (Tsopani, Dallas, & Skordilis, 2011). The role played by the gender should not be avoided, regarding the actual facts about the different consideration about girls and boys performance, mainly during the adolescence (Guillén & Álvarez-Male, 2010; Lorimer, 2006).

On the one hand, it is known that athletes in contact sports, individual sports, and those that are judged subjectively have higher cognitive anxiety than athletes in sports that are judged objectively, team sports, and non-contact sports, while other studies have found no difference based on gender, age, or between different sport modalities (Hanton, Cropley, & Lee, 2009; Pozo, 2007).

It has not always been found that anxiety has a negative impact on athletic performance, given that some studies have not observed any effect and some have even observed positive effects (Cervello et al., 2002). However, the majority of studies note the obstructive role of competitive anxiety in performance and in the enjoyment of sport, as well as its effect in increasing the probability of abandonment (González-Campos, Valdivia-Moral, Zagalaz, & Romero, 2015; Scanlan, Babkes, & Scanlan, 2005), but there are some clues about the different roles of the anxiety on performance (Garcia-Mas et al., 2015).

With regard to the very young, it is known that children who present with a high level of competitive anxiety worry more often about committing errors, about not playing well, or about losing than do athletes who have lower levels of anxiety. They also are

more concerned about how they will be evaluated by their coaches, their peers, and their parents, and often believe that their failure will lead to criticism from those individuals (Gould, Horn, & Spreeman, 1983).

The sports-performance environment demands high achievement, and it is common that pressure is applied to the athlete in a variety of ways (Aguirre & Ramos, 2011), principal among which are coaches, teammates, opponents, family, the competitive situation, or even pressure applied by the athlete himself. Also, the role of the young athlete's gender is continuously related with the amount of pressure received for to obtain results

In this sense, the potentially anxiogenic aspect of parents is very important, as fathers and mothers directly influence perceived competence in the physical activity of young athletes (Castillo, Balaguer, García-Merita, & Valcárcel, 2004). Parents generate a motivational climate that influences the initiation, maintenance, and abandonment of their children's career, as well as contributing to the shaping of their personalities, motivational orientation, self-efficacy, and self-esteem (Gagné, Ryan, & Bargmann, 2003; Krane & Baird, 2005; Ommundsen, 2004). Although it has been found that the quality of the parent-child relationship is an important predictor of anxiety and the level of enjoyment in younger athletes (Horn & Horn, 2007; Scanlan et al., 2005; Ullrich, French, & Smith, 2006), and specifically in young swimmers (Dasinger, 2013; Lee & Maclean, 1997); parental behaviors have received less emphasis in the literature than those of coaches, despite the fact that the actual concept of social support related.

However, the pattern of parental behavior is very complex, and it cannot be predicted with certainty whether it will be harmful or beneficial to performance. This fact may owe in part to the lack of standardization of systems of measurement of parental support and/or pressure (Cassidy & Conroy, 2004; O'Rourke, Smith, Smoll, & Cumming, 2011). It has also been found that there are positive relationships between the level parents' influence on their children's anxiety and on their sports performance (Bois, Lalanne, & Delforge, 2009; Lewthwaite & Scalan, 1989), with the relationship seeming to depend more upon the quality of the influence than on the intensity thereof (Bois et al. 2009; Fredericks & Eccles, 2003). Within the framework of goal orientation theory, the motivational climate created by parents has been studied, indicating that the promotion of a climate of commitment to the task by the parents has more positive outcomes in the sports experiences of their sons and daughters than the promotion of a climate of ego involvement (Torregrosa, Sousa, Viladrich, Villamarín, & Cruz, 2008).

Thus, the main objective of this study was to examine the relationship between competitive anxiety, and parental influence on performance in competition, including athletes' gender as a consideration.

## METHOD

### Participants

Participants in this study were 37 swimmers (20 males and 17 females) belonging to the same sports club in Mallorca (Spain) who were aged between 10 and 15 years (*M*<sub>age</sub> = 12.22 years; *SD*

= 1.27). These swimmers train an average of 16 hours a week, and they all regularly competed during the 2012-2013 season.

To evaluate the performance of the swimmers, the official personal results achieved by each swimmer competing in the study were used. Participants were divided into three groups: Group 1, consisting of swimmers who improved on the official test based on their last mark achieved; Group 2, consisting of swimmers who did worse on the official test based on their last mark achieved; and Group 3, which included swimmers who maintained their performance on the official test based on their last mark achieved.

### Materials and Procedure

Competitive anxiety in sport was measured using the Spanish-language adaptation (*Escala de Ansiedad Competitiva*, SAS-2, Ramis et al., 2010) of the *Sport Anxiety Scale 2* (SAS-2) (Smith, Smoll, Cumming, & Grossbard, 2006). The SAS-2 consists of three 5-item scales to measure three factors: somatic anxiety, worry, and impaired concentration. Each item was answered on a Likert 4-point scale with a range between "nothing" and "a lot". The reliability (alpha) of the SAS-2 subscales was: .83, .82, and .80, respectively, and .88 for the total score (Overall anxiety). These results exhibit acceptable internal consistency at both the total score and subscale levels, and its reliability is quite similar to that found for both the original SAS-2 (Smith et al., 2006): .84, .89, .84 and .91, respectively. The Flesch-Szigriszt readability analysis, when applied to this scale, gave a value of 79.91% and a score on the Inflesz scale of "very easy" (Harrison, 1980).

Influence of parents on their children's sports participation, measurement was taken using the *Cuestionario de Implicación de los Padres en el Deporte*, which is the Spanish version and adaptation (Torregrosa, Sousa, Villamarín, Vilches, Viladrich, & Cruz, 2005) of the *Parental Involvement Sports Questionnaire* (PISQ) of Lee and Mclean (1997). Said questionnaire has a total of 20 items grouped into three factors: managerial behavior, support and understanding, and active involvement. The tool also contains an additional one single-item indicator for pressure. Cronbach's alpha values of .82, .84, and .70 for the respective three factors were obtained. These results are quite similar and even better to those obtained by Lee and MacLean (1997): managerial behavior (.82), support and understanding (.60), and active involvement (.66). The Flesch-Szigriszt readability analysis, when applied to this scale, gave a value of 83.85% and a grade on the Inflesz scale of "very easy" (Harrison, 1980).

Finally, non-significant differences between alpha values of the two collection data were found.

### Procedure

After obtaining permission from the club and parents to begin the study, data collection commenced. The researcher met with the swimmers 2 times, the first after a training session (collection 1) and the second 3 weeks later (collection 2), the night before a competition. In both cases, the questionnaires completed were the SAS-2 and PISQ. The week following the competition, the

coaches turned in the marks obtained by each participant on the day of the competition, as well as records for the previous best marks, also obtained in an official competition.

### Data analysis

First the mean and standard deviation of each of the variables for both sexes were calculated. Normality tests for the contrasted variables were also implemented. The differences between competitive anxiety and parental influence factors scores from the two collection data were analyzed with paired t-tests and Wilcoxon tests for obtaining robust inferences. After that, a set of t-test for independent samples was conducted to examine the differences between competitive anxiety and parental influence among the swimmers with gender as group variable. Mann-Whitney U tests were also implemented to obtain robust inferences due to reduced sample size. These comparisons also took into account the two collection temporal points.

One-way ANOVA was applied to assess differences between competitive anxiety scores among the three performance groups (improves, worsens, and stable) for the collection 2 data (a night before competition point). Brown-Forsythe tests were also implemented as robust techniques. Partial eta-squared was computed for effect size. Brown-Forsythe tests were also implemented as robust techniques. Finally, non-parametric correlations were conducted between all subscales of the SAS-2 and the PISQ. All statistical analysis was performed using the statistical program SPSS 21 (IBM Corporation, 2012).

### RESULTS

Shapiro-Wilk tests for testing normality were implemented for all the variables considered in the study by gender and time collection (Table 1). Despite of the groups' sizes, only seven of thirty-two subgroups (22%) showed normality deviations. For these reasons, all statistical analysis combined parametric and non-parametric techniques.

Table 2 shows the paired t-test and Wilcoxon test for competitive anxiety and parental influence factors by gender and time collection, after training or the night before competition. Any comparison has reached statistical significance.

Table 3 shows the descriptive statistics and the result of the t-tests for the factors evaluated by the SAS-2, as well as overall competitive anxiety, and for the factors measured by the PISQ with gender and time collection grouping dichotomous variables. As can be observed, the average values of anxiety in all evaluated factors are not very high based on the response ranges, which were about average. So, it is the worry form of anxiety that presented the highest values in the two data collections (1 and 2), both in males (10.17 and 9.66) and in females (12.58 and 11.65), followed by somatic anxiety both in boys (8.34 and 7.74) and in girls (10.71 and 10.76).

Table 1  
*Shapiro-Wilk Normality tests for the contrasted variables by gender and time collection (after training or the night before competition)*

Variable	Gender	Time collection	Shapiro-Wilk statistic	Sig.
Somatic anxiety	Male	Before	0.92	.11
		After	0.94	.23
	Female	Before	0.91	.12
		After	0.94	.34
Worry Anxiety	Male	Before	0.94	.34
		After	0.91	.07
	Female	Before	0.92	.13
		After	0.91	.12
Distraction Anxiety	Male	Before	0.86	.01**
		After	0.94	.24
	Female	Before	0.95	.50
		After	0.97	.89
Overall Anxiety	Male	Before	0.87	.01**
		After	0.98	.95
	Female	Before	0.91	.10
		After	0.89	.06
Support Understanding	Male	Before	0.92	.09
		After	0.95	.32
	Female	Before	0.87	.02*
		After	0.92	.14
Active Involvement	Male	Before	0.94	.19
		After	0.94	.27
	Female	Before	0.89	.05
		After	0.94	.28
Managerial behaviors	Male	Before	0.98	.93
		After	0.98	.96
	Female	Before	0.96	.57
		After	0.92	.15
Perceived pressure	Male	Before	0.89	.02*
		After	0.90	.04*
	Female	Before	0.78	.001**
		After	0.81	.003**

Table 2  
*Paired t-test and Wilcoxon test for competitive anxiety and parental influence factors by gender and time collection (after training or the night before competition)*

Variable	Gender	Paired t	Sig.	Wilcoxon test	Sig.
Somatic anxiety	Male	1.07	.30	-0.95	.34
	Female	-0.08	.94	-0.85	.93
Worry Anxiety	Male	0.89	.38	-0.88	.38
	Female	1.64	.12	-1.46	.15
Distraction Anxiety	Male	0.82	.43	-0.69	.49
	Female	0.12	.09	-0.16	.88
Overall Anxiety	Male	1.23	.23	-0.84	.40
	Female	0.79	.44	-0.45	.65
Support Understanding	Male	0.47	.64	-0.23	.82
	Female	1.56	.14	-1.51	.13
Active Involvement	Male	-0.86	.40	-0.64	.52
	Female	1.80	.09	-1.68	.09
Managerial behaviors	Male	-0.71	.48	-0.65	.52
	Female	0.78	.45	-0.69	.49
Perceived pressure	Male	-0.65	.53	-0.54	.59
	Female	-0.55	.59	-0.54	.59

Table 3

*T-test and Mann-Whitney U's results for competitive anxiety and parental influence gender comparisons through the two data collections*

Variable	Data collection	Males (n = 20)	SD	Females (n = 17)	SD	t (p)	p Mann-Whitney U
Age		11.85	0.24	12.65	0.33		
Range = 4-20							
Somatic anxiety	1	8.34	3.42	10.71	3.44	-2.10* (.04)	.03*
	2	7.74	2.68	10.76	3.69	-2.89** (.01)	.01**
Worry Anxiety	1	10.17	2.72	12.58	3.50	-2.36* (.02)	.02*
	2	9.66	3.35	11.65	3.01	-1.89 (.07)	.04*
Distraction Anxiety	1	7.83	3.17	8.50	2.50	-0.71 (.48)	.26
	2	7.20	2.03	8.45	2.42	-1.72 (.10)	.15
Overall Anxiety	1	8.78	2.44	10.60	2.56	-2.21* (.03)	.02**
	2	8.20	2.13	10.29	2.01	-3.05** (.01)	.01**
Range = 4-20							
Support and Understanding	1	13.65	2.27	12.79	3.49	0.90 (.38)	.67
	2	13.37	2.05	12.01	3.26	1.54 (.13)	.21
Active Involvement	1	11.01	2.83	11.64	2.93	-0.67 (.51)	.58
	2	11.41	3.27	10.91	3.37	0.46 (.65)	.59
Range = 11-55							
Managerial Behaviors	1	32.46	6.48 <sup>a</sup>	30.43	10.07 <sup>a</sup>	0.71 (.47)	.46
	2	33.15	7.77	29.65	9.49	1.24 (.23)	.21
Range = 1-5							
Perceived Pressure	1	2.50	1.31	2.11	1.40	0.85 (.40)	.32
	2	2.65	1.34	2.29	1.49	0.76 (.45)	.36

Note: \*  $p < .05$  \*\*  $p < .01$  <sup>a</sup> Unequal variances assumed

Statistically significant differences between boys and girls were discovered. The girls exhibited somatic anxiety scores significantly higher than the boys ( $p < .05$  in time 1 and  $p < .01$  in time 2), as was the case with both worry anxiety ( $p < .05$ ) and with overall competitive anxiety ( $p < .05$  in time 1 and  $p < .01$  in time 2). Distraction anxiety differences did not reach statistical significance.

In Table 3 it can also be seen that the average values of the PISQ factors are moderate with regard to the response ranges. The support and understanding factor was the one with the highest values in the two data collections (1 and 2), both in boys (13.65 and 13.37) and in girls (12.79 and 12.01), followed by active involvement in boys (11.01 and 11.41) and in girls (11.64 and 10.91). The managerial behavior by parents factor presented higher values in boys (32.46 and 33.15) than in girls (30.43 and 29.65), while perceived pressure was slightly higher in boys (2.50 and 2.65) than in girls (2.11 and 2.29). No significant differences were found in any of the factors of the PISQ on the two samples

taken. All these findings in Table 2 were consistent with non-parametric results.

As has been indicated previously, for purposes of performance analysis, participants were divided into three groups. Group 1 (improved their mark) consisted of 21 swimmers (56.8%); Group 2 (worsened their mark) was composed of seven swimmers (18.9%); and Group 3 (maintained their mark) was composed of 9 swimmers (24.3%). No significant differences as a function of gender were discovered in any of the three groups. A trend was detected indicating that as age increased, competitive anxiety factors likewise increased.

In Table 4 one can see the competitive anxiety scores for the three performance groups (Group 1: Improves; Group 2: Worsens; Group 3: Stable), corresponding to the second data collection, as there were no differences between the two points. The highest values for all the competitive anxiety factors and of overall anxiety corresponded to Group 2, while the lowest values were consistently those obtained for Group 1.

Table 4

*One-way ANOVA results for competitive anxiety scores comparisons among the performance groups\**

Anxiety (SAS-2)	Group 1 (n = 21) Improves X (SD) Normality test p	Group 2 (n = 7) Worsens X (SD) Normality test p	Group 3 (n = 9) Stable X (SD) Normality test p	F(2,34)	p	Brown-Forsythe	p	Partial eta-squared	Observed power
Somatic	8.40 (3.13) .33	11.71 (4.38) .28	8.82 (2.92) .26	2.63	.09	2.23	.14		.49
Worry	9.40 (2.79) .87	13.25 (3.53) .12	11.24 (3.19) .02*	4.54	.02*	3.94	.04*	.21	.73
Distraction	7.02 (2.09) .29	9.0 (2.55) .52	8.57 (2.02) .07	2.98	.06	2.72	.09		.54
Overall	24.82 (5.98) .78	33.97 (7.45) .46	27.48 (6.92) .33	6.08	.01**	5.58	.01**	.26	.86

Note: \*The values for the second data collection were used

Upon analyzing the results of the subscales of anxiety via one-way ANOVA for the three performance groups, statistically significant differences were found for anxiety of worrying about performance ( $F_{2,34} = 4.54, p = .04$ ), with an observed power of .73 and a large effect size of .21 partial eta-squared. Overall anxiety on the performance of the swimmers was also significant ( $F_{2,34} = 4.54, p = .04$ ), with an observed power of .86 and a large .26 partial eta-squared effect size. It is important to say that Brown-Forsythe as robust test obtained the same ANOVA parametric results. Post hoc contrasts for both Worry and overall anxiety factors showed significant differences between Group 1 and Group 2, but Group 3 showed no significant differences in any comparison. Also, none of the factors considered by the PISQ showed significant differences between the three performance groups.

Finally, after performing a non-parametric correlation analysis using Spearman correlations, no significant relationship was found between competitive anxiety factors and those corresponding to the perception by the athletes of the quality of parental involvement.

## DISCUSSION

Given the theoretical background and according to the results of most of the research on the subject, one might think that the involvement of parents in their children's sports always implies the existence of some degree of pressure, and that such pressure from parents produces negative effects on the psychosocial outcomes of sport for their children (Bois et al., 2009, O'Rourke et al., 2011), but none of these notions obtained enough statistical evidences to be demonstrated in the present study.

On the contrary, the discovered values of the components related to ego-motivated orientation of parental involvement (managerial behaviors and perceived pressure) (Torregrosa et al., 2008) had the same weight for the athletes as did components related to task orientation (support / understanding and active involvement). Even breaking the analysis down between fathers and mothers, we found that more than half of the studied swimmers feel supported by both parents, while only one third perceived the support from their mothers as being more relevant and only ten percent perceived the support from their fathers as being more relevant. Furthermore, only 6% of the athletes declared not receiving any parental support.

This result contrasts with those of previous studies in which more pressure than support from parents was perceived (Ramis et al., 2010; Scanlan, et al., 2005, Ulrich, French, & Smith, 2006), although it is in line with those found in similar research aimed at finding out if coaches or parents are more decisive in determining attitudes of acceptance of the use of cheating and gamesmanship (Ponseti et al., 2012). Despite the "bad reputation" of parents of athletes, especially in soccer and tennis (often justified anecdotally by shocking behavior), it was demonstrated that it is the coach who is actually relevant to the acceptance of behaviors contrary to "fair play", and that the climate generated by parents -- even a result-oriented one -- did not determine that attitude (Josephson Institute, 2007). Thus, the coach stands out as the key element, and his influence is significantly greater than that of teammates and parents (Ramis, Torregrosa, Viladrich, & Cruz, 2013). Indirectly, Romero, Zapata,

Garcia-Mas, Brustad, Garrido and Letelier (2010) and Romero, Zapata, Letelier, Lopez and Garcia-Mas (2013) found that young tennis players used autonomously chosen coping strategies in the face of competitive stress, without being excessively aware of their perceived efficacy, rather than using what was believed to be the more likely strategy of seeking social support, and that preferably is carried out with the family.

Moreover, and in contrast to previous results (O'Rourke et al., 2011), although the values of the three components of competitive anxiety were found to be of average value, including perceptions of somatic changes, distraction, and concern about performance, overall anxiety was not perceived as being high, and neither was there a difference between training situations and competition. It must be kept in mind that these athletes train a large number of hours a week, and that they periodically compete in regular competitions in which their progression to or maintenance in high performance groups is at stake. Moreover, swimming is a sport in which there is a high transfer of training to competition, such that habituation plays a role in the attenuation of competitive anxiety.

But, if we abide by the specific performance criteria that have been used (the stability or the difference between two successive marks, separated by 21 days), competitive anxiety was found to have a blocking or debilitating effect on the performance of the swimmers, the most important component being the anxiety associated with worry about performance, thus confirming the finding of this negative effect's presence in the majority of the literature (Abenza, Alarcon, Leite, Urena, & Pinar, 2009; Wolframm & Micklewright, 2011).

However, the distraction component did not show a negative relationship with performance, perhaps due to the demands of swimming, such as low technical complexity and a focus on physical demands and repetition without opposition or direct collaboration with other athletes. Along the same lines, though no positive or facilitating effect of competitive anxiety on performance was discovered, it was found that anxiety did not affect those swimmers who maintained their marks. And even though it was not proven in any significant way, as the age of the athletes increased, their anxiety in terms of worrying about performance was increased.

As to the differences observed in competitive anxiety between swimmers, these may be due to an exclusively situational aspect related to concern about performance. At present, the most important model for study participants is a swimmer who currently gets significant results at the world championship and Olympic levels. This fact, in addition to helping explain the differences in anxiety between boys and girls (Lorimer, 2006), reinforces the situational interpretation in the appearance of the average levels of competitive anxiety.

But when we try to answer our central research question, that is, to what extent parental influence is related to anxiety in all its expressions, we find that there is no correlation and that we cannot even identify a trend. This result requires comment on two nearly opposite meanings. In the first place, from a more negative view, if one cannot find a significant and negative correlation between the two variables and if the values of competitive anxiety -- especially those of worry -- are average, it can be concluded that parental support does not act as an "inoculation" against the occurrence of anxiety associated with

competition. Second, and from a more positive outlook, neither has it been shown that parental behaviors, including those explicitly involving the existence of perceived pressure, have an impact on the anxiety perceived by young athletes.

Therefore, it seems clear that the influence of parents on the performance of their child athletes, impeded by competitive anxiety, has been nonexistent and was not able to be demonstrated by this study, opposed to previous literature on this (Lorimer, 2006; Torregrosa et al, 2008). The existence of a positive effect cannot even be cited, though one might theoretically be hoped for due to parental support, understanding, and active involvement in the sport, but also neither a negative effect can be claimed, needing this issue to be studied deeply in further works.

As for future development of this work, we should study which components of their children's sports practice parents push their children on and for which ones they lend support and understanding, according to the indicators of O'Rourke et al. (2011) in order to clarify much more the most selective effects of parental influence. It would also be desirable to find out whether significant interactions exist between the motivational climates created by parents, coaches, and teammates that affect competitive anxiety, and, consequently, the performance of the athletes (Ramis et al., 2013).

One of the main limitations of the study is the age range for a broader intergroup comparison, and the resultant lack of control about the resilient background towards competitive anxiety of participants, specially during adolescence. Also, we need to outline the short sample studied, impeding a broader generalization of the results. Moreover, in this study we have used a quite raw approach to the complex issue of the sportive performance. As stated previously, we used a solely objective measure of the performance (stability of the time results during two competitive seasons), and this fact should compromise the results obtained along with its generalization.

Finally, from an applied point of view, these results may provide –thinking of it broader– some clues to the coaches and for the applied sport psychologists: diminish the parental weight on the player's pressure; focus mainly on the worry for the own player's perceived competence –and provide technical and/or tactical solutions for that– than on the “nervousness” appearance before or during the competence, and lastly, perhaps thinking about the anxiety as it could be in some cases a good predictor of the athletes' effort, activation and performance, if it is delivered and understood as “excitation” rather than a blocker (Brooks, 2014).

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