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Are the traits of perfectionism associated with pre-competitive anxiety in young athletes?

Os traços do perfeccionismo estão associados à ansiedade pré-competitiva em jovens atletas?

¿Están los rasgos del perfeccionismo asociados con la ansiedad precompetitiva en los atletas jóvenes?

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ABSTRACT

This cross-sectional study verified the association between perfectionism and pre-competitive anxiety among young athletes. Participants were 177 boys and girls, who responded the Sport Multidimensional Perfectionism Scale-2 (SMPS-2) and Sports Anxiety Scale-2 (SAS-2). Data analysis was conducted through Kolmogorov-Smirnov test, "U" of Mann-Whitney, Spearman's correlation and Path Analysis ($p < 0.05$). The main results were that boys presented higher score of personal standards/organization and feel more pressured by parents, while the girls feel more somatic anxiety and care more about the games. Path Analysis revealed that perfectionistic strivings (PS) are associated with the reduction of cognitive/somatic anxiety, especially among boys, while perfectionistic concerns (PC) are positively associated with cognitive/somatic anxiety in both sexes. These findings show that PS seems to be an intervening factor for the reduction of the symptoms of cognitive and somatic anxiety, while PC may intensify the symptoms of somatic and cognitive anxiety among youth athletes, especially among boys.

Keywords: Personality; Stress; Anxiety; Sport.

RESUMO

Este estudo transversal verificou a associação entre perfeccionismo e ansiedade pré-competitiva entre jovens atletas. Participaram 177 meninos e meninas, que responderam à Escala Multidimensional de Perfeccionismo Esportivo-2 (SMPS-2) e Escala Esportiva de Ansiedade-2 (SAS-2). A análise dos dados foi realizada pelo teste de Kolmogorov-Smirnov, "U" de Mann-Whitney, correlação de Spearman e Análise de Caminho ($p < 0,05$). Os principais resultados foram que os meninos apresentaram maior escore de padrões / organização pessoal e se sentem mais pressionados pelos pais, enquanto as meninas sentem mais ansiedade somática e se preocupam mais com os jogos. O Path Analysis revelou que os esforços perfeccionistas (EP) estão associados à redução da ansiedade cognitiva / somática, principalmente entre os meninos, enquanto as preocupações perfeccionistas (PP) estão positivamente associadas à ansiedade cognitiva / somática em ambos os sexos. Esses achados mostram que o EP parece ser um fator intermediário para a redução dos sintomas de ansiedade cognitiva e somática, enquanto o PP pode intensificar os sintomas de ansiedade somática e cognitiva entre jovens atletas, principalmente entre meninos.

Palavras chave: Personalidade; Estresse; Ansiedade; Esporte.

RESUMEN

Este estudio transversal verificó la asociación entre el perfeccionismo y la ansiedad precompetitiva entre los atletas jóvenes. Los participantes fueron 177 niños y niñas, que respondieron a la Escala Deportiva Multidimensional de Perfeccionismo-2 (SMPS-2) y a la Escala Deportiva de Ansiedad-2 (SAS-2). El análisis de datos se realizó a través de la prueba de Kolmogorov-Smirnov, "U" de Mann-Whitney, correlación de Spearman y análisis de ruta ($p < 0.05$). Los principales resultados fueron que los niños presentaron un puntaje más alto de estándares / organización personal y se sintieron más presionados por los padres, mientras que las niñas sienten más ansiedad somática y se preocupan más por los juegos. El análisis de ruta reveló que los esfuerzos perfeccionistas (EP) están asociados con la reducción de la ansiedad cognitiva / somática, especialmente entre los niños, mientras que las preocupaciones perfeccionistas (PP) se asocian positivamente con la ansiedad cognitiva / somática en ambos sexos. Estos hallazgos muestran que la PS parece ser un factor de intervención para la reducción de los síntomas de ansiedad cognitiva y somática, mientras que la PP puede intensificar los síntomas de ansiedad somática y cognitiva entre los atletas jóvenes, especialmente entre los niños.

Palabras clave: Personalidad; Estrés; Ansiedad; Deporte.

INTRODUCTION

Perfectionism is characterized as a multidimensional formation of personality defined as a pursue for perfection, achievements, following several critical evaluations of person's self-imposed and colleagues throughout daily life (Cowden, Crust, Jackman, & Duckett, 2019; Ebstrup, Eplov, Pisinger, & Jørgensen, 2011; Stoeber, 2018). The traces of perfectionism have been constantly associated with not adaptive and adaptive results (Oliveira et al., 2015; Stoeber, 2018).

Recent findings notice the importance of identifying differences in two dimensions of perfectionism. On one hand, the perfectionistic strivings (PS) establishes as high trend personal standards in search of excellence (Hill, Mallinson-Howard, & Jowett, 2018). On the other hand, the perfectionist concerns (PC) refers to the mal adaptative perfectionism that include characteristics, such as constant concern with mistakes, fear of failure, self-criticism, stress, low sense of competence and negative emotional reactions when expectations are not reached (Cowden et al., 2019; Hill & Madigan, 2017; Stoeber, 2018).

Recent studies indicate that PS have been associated with the athlete's performance optimization (Hill & Madigan, 2017; Hill, Madigan, Smith, Mallinson-Howard, & Donachie, 2019; Hill et al., 2018), intrinsic motivation (Cowden et al., 2019), group cohesion (Nascimento et al., 2017) and emotions (self-confidence) (Stoeber, 2018). On the other hand, PC have been associated with the frustration of meeting basic psychological needs (Jowett, Mallinson, & Hill, 2016), negative emotional responses (H. A. Pineda-Espejel, Morquecho-Sánchez, Fernández, & González-

Hernández, 2019), amotivation (Cowden et al., 2019; Hill et al., 2019; Oliveira et al., 2015); burnout (Tashman, Tenenbaum, & Eklund, 2010) and pre-competitive anxiety (Stoeber, Otto, Pescheck, Becker, & Stoll, 2007).

Pre-competitive anxiety is a multidimensional variable that refers to the desire to respond to stress and a tendency to perceive stressful situations (eg. Competition) (Martens, Vealey, & Burton, 1990). It has been established previously, at the Multidimensional Theory of Anxiety (Martens et al., 1990), that competitive anxiety is subdivided into three dimensions: cognitive anxiety, somatic anxiety and self-confidence. Cognitive anxiety refers to negative thoughts, expectations, and/or self-verbalizations about the competitive event, while somatic anxiety corresponds to the physiological responses of the organismo. Self-confidence, on the other hand, refers to the perceived skills and the conviction of the ability to perform successfully tasks (Grossbard, Smith, Smoll, & Cumming, 2009; Martens et al., 1990).

As discussed in more detail below, perfectionism and pre-competitive anxiety establish relationships due to a number of factors that end up promoting corporal interactions in both physical and the psychological aspects (Cruz, Varela, & Cabanelas, 2010; Jensen, Ivarsson, Fallby, Dankers, & Elbe, 2018). Previous researches indicate that athletes with higher levels of self-confidence tended to show lower rates of pre-competitive anxiety (Pineda-Espejel, López-Walle, & Tomás, 2015; Pineda-Espejel, Alarcón, López-Ruiz, & Trejo, 2017). Stoeber et al. (2007) observed that mal-adaptative perfectionism is positively associated with the cognitive and somatic dimensions of pre-

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competitive anxiety in athletes. Ivanovic, Milasovljevic & Ivanovic (2015) noted that PC traits are positively associated with the symptoms of cognitive and somatic anxiety in young athletes during competitions and, consequently, may negatively interfere with self-confidence. Nevertheless, PS have been constantly associated with the greater athlete's self-confidence (Stoeber, 2018).

Even previous researches have indicated that personality traits, such as perfectionism, possibly causes anxiety at school (Damian, Negru-Subtirica, Stoeber, & Băban, 2017) and sporting context (Ivanović, Milosavljević, & Ivanović, 2015; Pineda-Espejel et al., 2019), these studies also point out this association in adolescents remains unclear, since there are few evidences about this theme (Ivanović et al., 2015; Pineda-Espejel et al., 2019), mainly in the sporting context. In addition, such ideas can lead youth athletes to negative experiences during sports practice, thus, hindering positive development, which should be the pillar of school sports (Myer et al., 2015; Vierimaa, Bruner, & Côté, 2018).

It is worth mentioning that, during adolescence, boys are more pressured by parents, coaches and other social agents for better sports performance (Machado et al., 2016; Doherty, Hannigan, & Campbell, 2016; Pineda-Espejel et al., 2019), and this type of behavior can favor the increase of perfectionist concerns and pre-competitive anxiety (Machado et al., 2016). Rice et al. (2019) observed that girls feel more anxious (somatic anxiety) in relation to boys during competitions, which may be related to the fact that boys can socialize better than girls in order to suppress perceived vulnerabilities in the context of sport (Doherty et al., 2016). These evidences show the importance of analyzing the differences between boys and girls in the association between perfectionism and anxiety among youth sporting context.

Thus, the present study aimed to investigate the association between the traits of perfectionism and the pre-competitive anxiety of young athletes from the state of Pernambuco in Brazil. In this way, the hypothesis is that PC will associate positively with somatic and cognitive anxiety, which, in turn, will have a negative relationship with PS.

MATERIAL AND METHODS

Participants

Participants were 185 young athletes participating in the final phase of the School Games of the state of Pernambuco, Brazil, in 2017. However, eight subjects were excluded because they had not properly completed the questionnaires. In this way, the participants were 177 boys (n=104) and girls (n=73) aged between 14 and 17 years, of the following sports: basketball (14 boys and 0 girls), futsal (38 boys and 26 girls), handball (32 boys and 10 girls), and volleyball (20 boys and 37 girls). The athletes had average age of 16.15 ± 0.90 years (boys = 16.19 ± 0.99 years; girls = 16.10 ± 0.78 years), time of practice of 4.41 ± 3.25 years (boys = 4.83 ± 3.43 years; girls = 3.79 ± 2.90 years) and time in the team of 26.68 ± 19.40 months (boys = 27.52 ± 19.31 years; girls = 27.32 ± 20.90 years).

The participants were selected in a non-probabilistic way and for convenience and the selection criteria were as follows: 1) to practice the sport for more than 1 year; and 2) to have participated in some regional/state level competition during the 2016/2017 seasons. Only the athletes who had the free and clarified consent term signed by the coaches (responsible for the athletes in the sports event) participated in the study.

Instruments

To identify the traits of perfectionism was used the Multidimensional scale of perfectionism for Sport-2 (SMPS-2) (Gotwals & Dunn, 2009), adapted and validated for the Brazilian context by (Nascimento Junior, Vissoci, Lavallee, & Vieira, 2015). The instrument consists of 24 items, answered on a Likert scale of five points (1=completely disagree to 5=completely agree). The results are grouped into four subscales: personal standards/organization (for example, "On the day of competition, I have a routine that I try to follow"); concern with mistakes (for example, "If I don't go well every time I'm competing, I feel like people don't respect me as an athlete"); perceived parental pressure (for example, "My parents set high levels of performance for me in my sport"); and doubts about action (for example, "I usually feel uncertain as to whether or not my training effectively prepares me for competition"). Cronbach' alpha of the dimensions ($\alpha = 0.72$ to $\alpha = 0.77$) indicated strong internal consistency (Hair, Risher, Sarstedt, & Ringle, 2019).

To identify the pre-competitive anxiety traits it was used the Sport Anxiety Scale-2 (SAS-2), developed by (Smith, Smoll, Cumming, & Grossbard, 2006) and validated for the Brazilian context by Silva-Rocha and Osório (2017). SAS-2 consists of 15 items and evaluates the individual differences at somatic anxiety (for example, “My body feels tense”) and at two dimensions of cognitive anxiety (worry - for example “I worry that I will play badly”; and concentration disorder - for example, “It is hard to concentrate on the game”). The items are answered on a four-point likert scale (1 = never to 4 = almost always). The Cronbach’s Alpha of the dimensions ($\alpha = 0.70$ to $\alpha = 0.72$) indicated strong internal consistency (Hair et al., 2019).

Procedures

The study is integrated with the institutional project approved by the Ethics Committee in research under the opinion nº 1.618.086. Initially, contact was made with the Secretary of Sports of the state of Pernambuco, Brazil, to request permission to conduct the research with the participating athletes of School Games of the state of Pernambuco. The data collection took place in the hotels and hostels of the teams in the city where it was held. The application of the questionnaires was carried out collectively, in a private room, with the absence of the coaches, and the completion of the questionnaires lasted approximately 30 minutes. The order of the questionnaires was randomized among the participants.

Statistical Analysis

The preliminary analysis of the data was carried out by means of the normality test of Kolmogorov Smirnov. As the non-normality of the data was shown, descriptive statistic was presented by median (Md) and interquartile range (Q1-Q3). For the comparison of traits of perfectionism and pre-competitive anxiety according to sex, the Mann-Whitney “U” test was used. Spearman’s correlation was used to verify the correlation between variables ($p < 0.05$). To verify the percentage of variance explained of the precompetitive anxiety by traits of perfectionism, different models of Path Analysis were conducted with variables that have obtained significant correlation ($p < 0.05$). The existence of outliers was evaluated by the square distance of Mahalanobis (DM2) and the univariate normality of the variables was evaluated by the asymmetric coefficients (ISkI < 3) and curtosis

(IKuI < 10) uni and multivariate. As the data did not present normal distribution, we used the technique of Bootstrap Bollen-Stine to correct the value of the coefficients estimated by the method of Maximum Likelihood (Marôco, 2010) implemented in the software AMOS version 22.0. No DM2 values indicating the existence of outliers were observed, nor were there sufficiently strong correlations between the variables indicating multicollinearity (Variance Inflation Factors < 5.0). Starting from the recommendations of Kline (2012), the interpretation of the regression coefficients was based on: little effect for coefficients < 0.20, mean effect for coefficients up to 0.49 and strong effect for coefficients > 0.50 ($p < 0.05$).

RESULTS

It was verified (Table 1) that athletes of both sexes showed similar scores of perfectionism, with low level in the maladaptive dimensions (perceived parental pressure and doubts about action) and high score in the adaptive dimension (organization-personal standards). Despite this, there was significant difference between groups in the dimensions of organization-personal standards ($p = 0.004$) and perceived parental pressure ($p = 0.002$), indicating that the boys had stronger traits of high standards and organization, as well as feel more pressured by the parents.

Table 1. Comparison of the traits of perfectionism and the pre-competitive anxiety of young athletes participating in the school games in Pernambuco according to sex.

Variables	Boys (n=104)	Girls (n=73)	P
	Md (Q1-Q3)	Md(Q1-Q3)	
Perfectionism			
OPS	3.54 (3.14-4.14)	3.29 (2.86-3.58)	0.004*
COM	3.00 (2.25-3.25)	3.00 (2.50-3.63)	0.084
PPP	2.67 (2.13-3.00)	2.13 (1.75-2.63)	0.002*
DAA	2.50 (2.00-3.25)	2.75 (2.13-3.25)	0.337
Anxiety			
SA	18.5 (13.0-23.0)	22.0 (16.5-28.5)	0.001*
Worry	18.0 (12.0-21.0)	19.0 (14.5-25.0)	0.013*
CD	10.5 (8.0-13.0)	11.0 (8.0-14.0)	0.386

*Significant difference - $p < 0.05$ (Mann-Whitney Test). OPS= Organization-Personal Standards; COM= Concern over Mistake; PPP= Perceived Parental Pressure; DAA= Doubts about action; SA= Somatic Anxiety; CD= Concentration Disruption

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Regarding the pre-competitive anxiety (Table 1), there was a significant difference between the sexes at somatic anxiety ($p = 0.001$) and worry ($p = 0.013$), showing that girls feel more symptoms of somatic and cognitive anxiety than boys do. Both groups showed low score in the concentration disturbance dimension.

There following significant ($p < 0.05$) correlations were found for boys (Table 2): organization/personal standards with somatic anxiety ($r = -0.30$), worry ($r = -0.20$) and concentration disruption ($r = -0.26$); concern over mistakes with somatic anxiety ($r = 0.28$), worry ($r = 0.28$) and concentration disruption ($r = 0.37$); perceived parental pressure with concentration disruption ($r = 0.39$); and doubts about action with somatic anxiety ($r = 0.23$), concern over mistakes ($r = 0.28$) and concentration disruption ($r = 0.44$).

Table 2. Correlation between traits of perfectionism and pre-competitive anxiety for boys.

Variables	Traits of perfectionism				Pre-Competitive Anxiety		
	1	2	3	4	5	6	7
1.OPS	0.08	0.22*	-0.04	-0.30*	-0.20*	-0.26*	
2.COM		0.30*	0.28*	0.28*	0.28*	0.37*	
3.PPP			0.50*	0.14	0.16	0.39*	
4.DAA				0.23*	0.28*	0.44*	
5.SA					0.51*	0.70*	
6.Worry						0.51*	
7.CD							

* Significant correlation ($p < 0.05$) – Spearman correlation. OPS= Organization-Personal Standards; COM= Concern over Mistake; PPP= Perceived Parental Pressure; DAA= Doubts about action; SA= Somatic Anxiety; CD= Concentration Disruption

Path Analysis model revealed that the size of organization/personal standards had a significant ($p < 0.05$) and negative association with anxiety dimensions, explaining 6% of the variability of somatic anxiety, 4% of the concentration disruption and 3% of the worry (Figure 1). The association of organization/personal standards was weak with concentration disruption ($\beta = -0.20$) and worry ($\beta = -0.16$) and moderate with somatic anxiety ($\beta = -0.24$). The dimensions of concern over mistakes and doubts about action were associated significantly ($p < 0.05$), positively and moderately ($\beta > 0.20$) with the anxiety dimensions, explaining 9% and 5% of the variability of somatic anxiety, 14% and 18% of the concentration disruption and 9% and 6% of the worry, respectively (Figure 1). On the other hand, parental pressure was significantly

and moderately associated ($\beta = 0.38$) with the concentration disruption (15%).

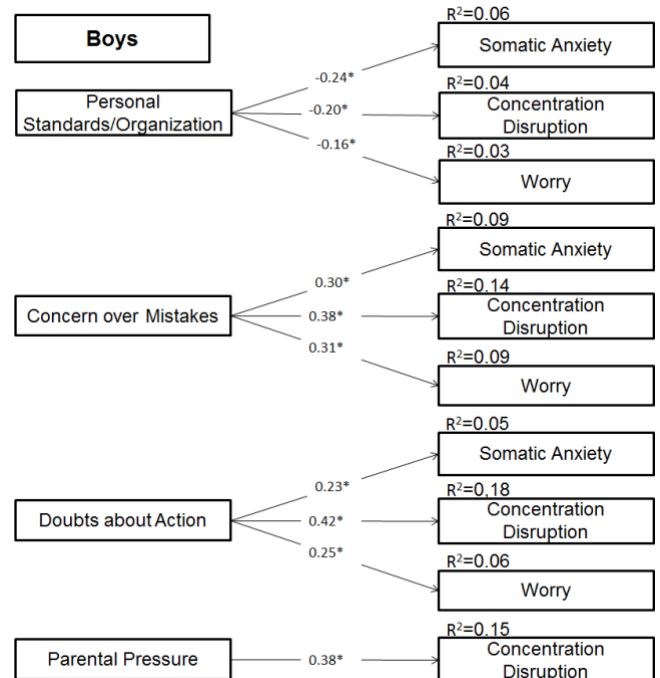


Figure 1. Path Analysis model of the relationship between traits of perfectionism and pre-competitive anxiety among boys.

The following significant correlations ($p < 0.05$) were found for girls (Table 3): organization/personal standards and concentration disruption ($r = -0.28$); concern with mistakes with somatic anxiety ($r = 0.31$) and worry ($r = 0.30$); doubts about action and concentration disruption ($r = 0.41$).

Table 3. Correlation between traits of perfectionism and precompetitive anxiety for girls.

* Significant correlation ($p < 0.05$) – Spearman correlation. OPS=

Variables	Traits of perfectionism				Pre-Competitive Anxiety		
	1	2	3	4	5	6	7
1.OPS	0.10	0.16	-0.08	-0.14	-0.06	-0.28*	
2.COM		0.27*	0.22	0.31*	0.30*	0.16	
3.PPP			0.49*	0.06	-0.02	0.23	
4.DAA				0.19	0.13	0.41*	
5.SA					0.64*	0.55*	
6.Worry						0.56*	
7.CD							

Organization-Personal Standards; COM= Concern over Mistake; PPP= Perceived Parental Pressure; DAA= Doubts about action; SA= Somatic Anxiety; CD= Concentration Disruption

The Path Analysis model showed that organization/ personal standards had significant ($p < 0.05$), moderate ($\beta = -0.35$) and negative association with concentration disruption (12%) for girls (Figure 2). Concern over mistakes showed significant ($p < 0.05$), positive and moderate ($\beta > 0.20$) association with somatic anxiety (8%) and worry (10%). Doubts about action was positively and moderately ($\beta = 0.42$) associated with the concentration disruption (18%).

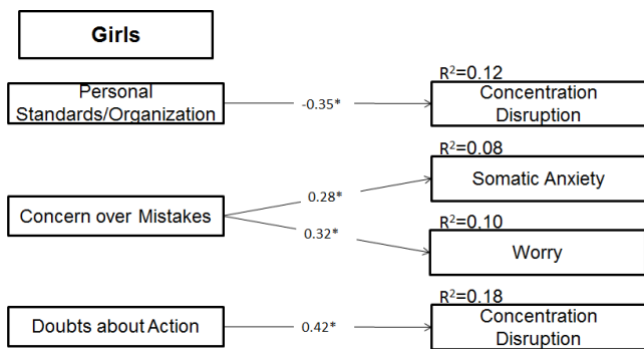


Figure 2. Path Analysis model relationship between traits of perfectionism and pre-competitive anxiety of girls.

DISCUSSION

This study analyzed the association between the traits of perfectionism and pre-competitive anxiety in students-athletes according to sex. The main evidence confirms the initial hypothesis that PS (personal standards and organization) was negatively associated with the symptoms of cognitive and somatic anxiety, while PC (concern with mistakes, parental pressure and doubts in action) was positively associated with the symptoms of cognitive and somatic anxiety (Figures 1 and 2). We observe that mal-adaptative perfectionism (PC) can act rising the symptoms of anxiety, which, in turn, can lead young athletes to perform actions with a greater pressure than normal (Ivanović et al., 2015). In contrast, adaptative perfectionism can be considered a moderator factor on young athletes’ anxiety (Pineda-Espejel et al., 2017; Madigan, Stoeber, & Passfield, 2017).

Specifically, it was shown that the PS (organization and personal standards) were inversely associated with somatic and cognitive anxiety (concerns and disturbances in concentration), especially among boys (Figure 1). These findings indicate that high personal

standards, organization and discipline can work as a tool to reduce the young athletes’ competition perception as a threat and, consequently, reducing cognitive and somatic anxiety (Ivanović et al., 2015). Pineda-Espejel et al. (2017) demonstrate that high-performance athletes with high levels of PS showed lower levels of cognitive and somatic anxiety.

Hill, Witcher, Gotwals, and Leyland (2015) observed that perfectionism is one of the main sources of motivation and instrumentation for success in athletes. However, these athletes also described how perfectionism was a significant source of personal and interpersonal difficulties. These adversities included concerns, emotional reactions (anxiety), physical experiences (sleepless nights), and poorer relationships with family and friends. These respective associations can demonstrate higher values of pre-competitive anxiety due to the lack of sporting experience in younger athletes (Gulliver, Griffiths, Mackinnon, Batterham, & Stanimirovic, 2015; Noble, Ashby, & Gnilka, 2014; Stoeber, 2011).

In sport competitions, personal factors (effort, concentration, and search for the goal) are intensified and may be associated with the traits of perfectionism and the anxiety levels of the athlete (Pineda-Espejel et al., 2017). (Gucciardi, Mahoney, Jalleh, Donovan, & Parkes, 2012) noted that athletes with predominance of PC are more predisposed to anxiety (somatic and cognitive) during the competition. Our findings corroborate with this study, showing that both boys (Figure 1) and girls (Figure 2) presented PC (concern with mistakes, doubt about action) associated with pre-competitive anxiety. Thus, young athletes with traits of PC are more vulnerable to possible psychological disorders (anxiety, depression, low mood, low self-esteem and burnout) (Madigan, Stoeber, & Passfield, 2017).

As showed at Table 1, boys showed higher score of PS and feel more pressured by parents (PC) than girls feel. It seems that boys establish higher personal standards and are more organized for sporting practice than girls are. Recent literature reviews about perfectionism in sport (Hill et al., 2019; Stoeber, 2018) point out that boys usually have more sporting experiences during adolescence, which, in turn, can promote more positive affective, cognitive and behavioral outcomes. The higher parental pressure among boys may be related to the fact that parents and coaches create higher

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expectations and pressure more boys for results, which may contribute to the increase of pre-competitive anxiety (Machado et al., 2016).

Pineda-Espejel et al. (2019) argue that fear of failure and anxiety among youth sport participants and athletes may be the result of different perceptions of criticism from close socializing agents (parents, coaches, teammates). These pressure and criticism can take young athletes to anticipate shame and humiliation. These findings are similar to previous research with youth sport participants (Kaye, Conroy, & Fifer, 2008; Sagar & Stoeber, 2009; Villena, Hernández, & Zafra, 2016). Others authors' contributions suggested that PC in adolescents both sexes may be related to various psychic episodes, such as fear of failure, stress, depression, anxiety, somatic complaints, low personal satisfaction, with one's own life, school and family (Damian, Stoeber, Negru, & Băban, 2014; Stoeber, 2018). Thus, the findings of the present study seem to indicate that such socializing agents (parents, coaches, teammates) put more pressure on young male athletes to obtain high performance.

Regarding pre-competitive anxiety (Table 1), it was observed that girls feel more anxious and concern more about games and competitions than boys. These findings can be associated with results of a meta-analysis conducted by Rice et al. (2019), which found that girls felt more symptoms of somatic anxiety than boys. That result has a possible explanation related to the fact that boys socialize more with other people to suppress perceived vulnerabilities in sport (Doherty et al., 2016). In addition, sporting initiation in the school' context can be one reason for female sensitivity and insecurity, since in most schools the incentive and content of the girls sports' practices are lower compared with boys (Silva, dos Santos Silva, & Petroski, 2012). In this study, girls were more inexperienced than boys and according to Fernandes et al. (2014), sports experience has also a moderator multivariate effect on competitive anxiety among youth athletes.

Although this study points relevant findings to the literature, some limitations need to be highlighted. Firstly, the sample consisted only students-athletes, also from a single Brazilian state, which makes it impossible to generalize the results with the national and international scenario. However, athletes have been participating in the state's main school

competition. Secondly, this study presented a transversal design, evaluating the athletes at just one moment of the season, making it impossible to analyze the cause and effect relationships between the variables. With this, it is suggested that future research be conducted also with athletes of individual sports, in order to compare the groups, as well as the involvement of other psychological variables (e.g. motivation, team cohesion and goal orientations). Further, futures studies should use a longitudinal design in order to verify the possible changes in the association of perfectionism and pre-competitive anxiety over time.

CONCLUSIONES

In summary, our study suggests that the traits of perfectionism have been considered factors involved in the emotional behavior of student-athletes. It is noted that the Traits of perfectionism related to PS (disposition, personal efforts, objectives and discipline) favor the reduction of the symptoms of cognitive and somatic anxiety, while PC may intensify the effects of somatic and cognitive anxiety, especially in boys.

PRACTICAL IMPLICATIONS

Such conclusions provided some practical implications for professionals working in school sports. First, it is important that professionals involved in school sports provides experiences that provide the development of adaptive perfectionism (high personal standards and organization), since these traits could act as protective factors for precompetitive anxiety. Furthermore, it is important to avoid negative experiences that develop in the youth sport participant the fear of mistake, doubts in decision-making and pressure for results, since these characteristics are associated with the increase of pre-competitive anxiety.

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