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Organizational stressors predict competitive trait anxiety and burnout in young athletes: Testing psychological resilience as a moderator

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Abstract

The experience of athlete burnout is influenced by the psychosocial dynamics within sports organizations. Factors relevant to the stress-burnout process need to be explored to guide the development of effective strategies for preventing or reducing athlete burnout. The study aim was to examine how levels of psychological resilience influence the relationships among organizational stressors, competitive trait anxiety, and burnout symptoms in athletes. Within a correlational study design, a survey of 506 young athletes (mean age = 21.3 years) collected data on psychological resilience, organizational stressors, competitive trait anxiety, and athlete burnout (reduced sense of accomplishment, sport devaluation, emotional/physical exhaustion). A conditional process analysis was conducted to test whether competitive trait anxiety mediated the association between organizational stressors and athlete burnout and its dependence on psychological resilience levels. The results indicated that organizational stressors could contribute to burnout symptoms as they could induce high levels of competitive trait anxiety in athletes (indirect effect = .08–.11, Sobel $Z = 3.58$–5.41). For athletes with higher levels of psychological resilience, the indirect effect of organizational stressors on athlete burnout via competitive trait anxiety was weaker. These results highlight the importance of psychological resilience and competitive trait anxiety in understanding how organizational stressors relate to burnout in athletes. Sports practitioners are recommended to develop resilience-training interventions to support individuals encountering organizational stressors in sport.

Keywords Stress · Resilient personality · Emotion · Well-being

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Introduction

Athletes' chronic stress in sport settings is linked to negative outcomes such as burnout. Athlete burnout is defined as an experiential condition characterized by a syndrome comprising physical and emotional exhaustion, a reduced sense of accomplishment, and sport devaluation (Raedeke, 1997). Based on this definition, emotional and physical exhaustion reflect general feelings of being overextended and exhausted by the demands of intense training and competition. Feelings of reduced accomplishment refer to a perceived lack of professional efficacy and personal achievement while sport devaluation refers to a negative and detached attitude toward the value of sport involvement. Furthermore, athlete burnout may negatively influence athletes' physical and psychological well-being, performance, and sport continuation (Goodger et al., 2007; Gustafsson et al., 2011). According to Smith's (1986) cognitive–affective model, the relationship between stress and burnout is complicated and shaped by the interactions between situational factors, cognitive appraisal, physiological responses, and coping behavior. Some chronically

stressed individuals experience greater burnout symptoms than others due to poorer supporting resources and other personal characteristics (Raedeke, 1997). Therefore, it is important to explore factors relevant to the stress-burnout process, such as antecedents, moderators, and mediators, to formulate effective strategies for preventing or reducing athlete burnout.

Indeed, numerous situational and organizational variables have been identified as antecedents that contribute to burnout in elite athletes, such as the training and competition load, the training and competition environment, logistical concerns, and a lack of social support (Gustafsson et al., 2008; Tabei et al., 2012). The main finding to emerge from these studies is that athlete burnout is influenced by the psychosocial dynamics within sports organizations. Specifically, the area of organizational stress in sport has been paid considerable attention by researchers. Woodman and Hardy (2001) defined organizational stress in sport as the stress that is primarily and directly related to an individual's appraisal of the structure and functioning of the sport organization within which that individual is operating. Consequently, issues that are associated directly with the sport organization are viewed as potential sources of organizational stress such as selection criteria, goals and expectations, training environment, finances, coaches and coaching styles, team atmosphere, and support network. By extension, Arnold and Fletcher (2012) developed a taxonomic classification of organizational stressors in sport comprising four categories: leadership and personnel, cultural and team, logistical and environmental, and performance and personal issues. Over the past decade, organizational stressors have been associated with various emotional, behavioral, and attitudinal outcomes. For example, the frequencies of team and culture and coaching organizational stressors were found to be associated with increased threat appraisals from sport performers which, in turn, would intensify experiences of psychological need frustration (Bartholomew et al., 2017). Also, the frequencies and intensities of organizational stressors, including goals and development as well as team and culture, could have positive effects on negative affect (Arnold et al., 2017). Such findings imply that the numerous environmental demands that athletes face might lead to debilitating personal and professional responses, such as burnout and performance dissatisfaction (Wagstaff et al., 2018). However, much work remains to be done. In addition to investigating discrete relationships between organizational stressors and sports performers' responses, researchers have been encouraged to consider the potential interactions between components of organizational stress (Arnold et al., 2016). For instance, recent research has indicated that specific types of organizational stressors could moderate the association between athletes' perceived esteem support and appraisals of competitive stressors (Tamminen et al., 2019). Therefore, more research is required to explore the impact of organizational stress on athletes.

The relationship between organizational stressors and athlete burnout might be mediated by competition anxiety. Competition anxiety is one of the most common issues investigated in sports contexts, and burnout is one of the most maladaptive psychological outcomes of chronic exposure to sport-related stress. Competitive trait anxiety refers to a predisposition to a state of high anxiety in sports performance settings. This implies that when exposed to stressful competitive situations, athletes with high trait anxiety are more likely to experience higher levels of somatic arousal, worry, and/or concentration disruption (Smith et al., 2006). Numerous studies have explored the effects of anxiety and burnout on competitive performance, yet only a few have tried to predict burnout levels resulting from anxiety. For instance, a systematic review indicated that higher levels of trait anxiety predisposed athletes to the risk of burnout (Goodger et al., 2007). In studies with youth and collegiate athletes, those who experienced burnout were likely to be characterized by high perceived stress and anxiety (Cremades et al., 2011; Gomes et al., 2017). With regard to psychological correlates of athlete burnout, the direct effects of trait anxiety should not be ignored. Furthermore, some types of organizational stressors including selection, logistics and operations were found to be positive predictors of symptoms of anxiety at the within-person level in athletes (Simms et al., 2021); and coaches' controlling style significantly predicted the occurrence of athletes' competitive trait anxiety (Ramis et al., 2017). These findings imply that long-term stressors derived from sports organizations frequently lead to somatic symptoms and cognitive difficulties in athletes. Taken together, given that close relationships have been found among organizational stressors, competitive trait anxiety, and burnout, competitive trait anxiety may have the potential to mediate the connection between organizational stressors and athlete burnout. However, little research has investigated these relationships.

Importantly, psychological resilience could also moderate the relationships among organizational stressors, competition anxiety, and burnout. Psychological resilience is a trait consisting of a combination of characteristics that enhance an individual's ability to adapt to situations they encounter (Connor & Davidson, 2003). In a review study, Sarkar and Fletcher (2014) found that these characteristics are commonly referred to as protective factors that prevent athletes from the potentially negative effects of organizational stressors. Such findings suggest that the quality of psychological resilience plays a positive role in response to the stress and adversity that athletes have to overcome in sports settings. As Raedeke (1997) stated, although stressors are important antecedents of athlete burnout, not all athletes who experience stress will burn out or withdraw from sport. Therefore, researchers have been encouraged to examine the role of potential moderating and mediating variables and the influences of individual

differences on athletes' responses to organizational stressors. As shown in Fig. 1, the study aim was to identify how college athletes' levels of psychological resilience influence the relationships among organizational stressors, competition anxiety, and burnout symptoms. This study predicted that competition anxiety would mediate the relationship between organizational stressors and athlete burnout. Furthermore, given that athletes with a resilient personality are likely to adapt to stress and adversity, significant associations between organizational stressors, competition anxiety, and athlete burnout might not be expected in this population.

Method

Participants and Procedure

A convenience sample of 579 athletes from 10 regional sport-training centers in the eastern China was recruited as participants because of geographic consideration in familiarity with administrative authorities. After institutional ethical approval was received, permission to distribute questionnaires to athletes was sought from the center administrators, the head coaches of various sports teams and the prospective participants themselves. Participants were provided with general information about the study and assured of the confidentiality and complete anonymity of the surveys. Athletes who agreed to participate completed measures of organizational stressors, psychological resilience, competitive trait anxiety, and burnout using a WeChat online survey tool before daily practice in the meeting rooms during the competitive season. It took approximately 20 min. After verifying data and checking which surveys were left incomplete, 73 responses were removed. Data from the remaining 506 surveys were used in analysis. The response rate of survey completion was 87%.

Measures

Organizational Stressors The Organizational Stressor Indicator for Sports Performers (OSI-SP; Arnold et al., 2013) is a 23-item measure comprising five subscales: goals and development, logistics and operations, team and culture, coaching, and selection. Although the OSI-SP consists of three rating scales (i.e., frequency, intensity, and duration), the current study only examined the frequency of each stressor in line with our purposes. Participants were asked to respond to questions on a scale of 0 to 5 by indicating the frequency of each stressor encountered (e.g., "How often did this pressure place demand on you?" 0 = never, 5 = always). Acceptable Cronbach's alpha coefficients for each OSI-SP subscale were observed for the present sample: goals and development $\alpha = .73$, logistics and operations $\alpha = .87$, team and culture $\alpha = .85$, coaching $\alpha = .79$, and selection $\alpha = .70$.

Psychological Resilience The Connor-Davidson Resilience Scale-10 (CD-RISC-10; Campbell-Sills & Stein, 2007) was used to measure psychological resilience in this study. The CD-RISC-10 is a 10-item measure evaluating individuals' ability to cope with adversity. Participants responded by indicating how they adapted to adverse situations (e.g., "I can deal with whatever comes my way," "I am able to adapt when changes occur") based on a 5-point Likert scale ranging from 1 (*not at all true*) to 5 (*true nearly all the time*). The validity and reliability of the CD-RISC-10 was supported by previous research using a sample of cricketers (Gucciardi et al., 2011). Satisfactory internal consistency ($\alpha = .91$) was observed in the present study.

Competitive Trait Anxiety The Sports Performance Anxiety-2 (SAS-2; Smith et al., 2006) is a multidimensional measure of cognitive and somatic trait anxiety in sports performance settings. The 15-item instrument consists of three subscales: somatic anxiety, worry, and concentration disruption. The items were designed to reflect possible responses that athletes may have before or while competing in sports (e.g., "My body feels tense," "I worry that I will not play my best," "I lose focus on the game"). For each item, participants indicated how they typically felt using a 4-point Likert scale ranging from 1 (*not at all*) to 4 (*very much*). A composite anxiety score is derived by summing all 15 items. Internal consistency Cronbach's coefficients for the three subscales in the present study were acceptable: somatic anxiety $\alpha = .70$, worry $\alpha = .87$, and concentration disruption $\alpha = .75$.

Athlete Burnout The Athlete Burnout Questionnaire (ABQ; Raedeke & Smith, 2001) is a 15-item measure developed specifically to measure burnout in athletes. The ABQ comprises three subscales with five items each: reduced sense of

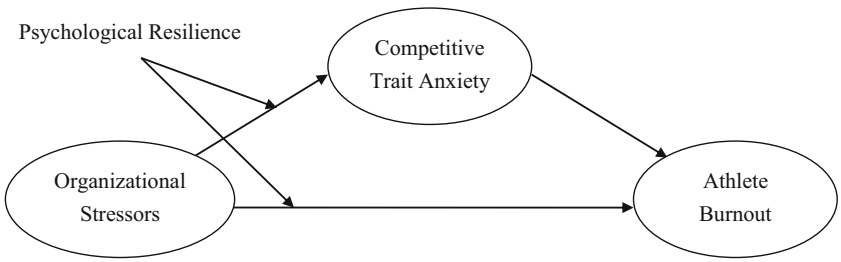

Fig. 1 Theoretical model of this study

accomplishment (e.g., "I am not performing up to my ability in sport"), sport devaluation (e.g., "I have negative feelings toward sport"), and emotional/physical exhaustion (e.g., "I feel so tired from my training that I have trouble finding energy to do other things"). Participants were asked to respond to each item using a 5-point Likert scale ranging from 1 (*almost never*) to 5 (*almost always*). The higher the total average scores on the ABQ the greater the degree of burnout. In the present study, adequate reliability coefficients were reported for sport devaluation ($\alpha = .80$), emotional and physical exhaustion ($\alpha = .85$), and reduced sense of accomplishment ($\alpha = .85$).

Data Analysis

Comparisons of the key variables were conducted between athletes with high and low psychological resilience (based on a mathematical split, CD-RISC-10 = 3.89) to provide preliminary information about the influence of psychological resilience on these variables. A moderated mediation analysis was conducted (Hayes, 2013) to investigate whether psychological resilience influenced the mediating effect of competitive trait anxiety on the relationship between organizational stressors and athlete burnout (reduced accomplishment, sport devaluation, emotional/physical exhaustion). Prior to the model estimation, all variables were mean centered to reduce the multicollinearity between the main effects and interactions (Aiken & West, 1991). During the first step, simple mediation models were examined using the PROCESS macro for SPSS, Model 4, to estimate the indirect effects using a normal theory approach (i.e., the Sobel test) and a bootstrap approach to obtain 95% confidence intervals (CIs). During the next step, Model 8 was used to test the conditional process model. The interactions between the average scores for organizational stressors and psychological resilience in the models of competitive trait anxiety and each component of athlete burnout were examined separately. An analysis of the conditional indirect effects of organizational stressors on the components of athlete burnout through competitive trait anxiety was conducted using psychological resilience values at 1 SD above mean, the mean, and 1 SD below the mean, along with an inferential test at those values and a bootstrap CI. The conditional direct effects of organizational stressors on components of athlete burnout were also estimated for various values of psychological resilience, along with standard errors and *p*-values.

Results

Preliminary Analyses

Athletes from a variety of sports were represented: shooting, athletics, gymnastics, swimming, wrestling, table tennis, basketball, volleyball, soccer, badminton, tennis, and cycling. Of the participants, 59% ($n = 297$) were male and 41% ($n = 209$) were female. The ages of the participants ranged from 16 to 25 years, with an average of 21.3 years (SD = 2.06). The athletes reported an average of 8.9 (SD = 3.60) years of competitive experience in their sport and an average of 3.1 years of operating within their sports organizations. At the time of the study, 195 of the participants had competed at the national level, while 307 had competed at the province level.

Table 1 presents the descriptive statistics and intercorrelations among the study variables. The frequency of organizational stressors was positively correlated with competitive trait anxiety subcomponents and burnout symptoms. Psychological resilience was negatively related to the frequency of organizational stressors, competitive trait anxiety subcomponents, and burnout symptoms. Given that the frequency of each organizational stressor was systematically and positively correlated with each subcomponent of competitive trait anxiety, the subsequent conditional process analysis used the compound scores of the frequency of organizational stressors and competitive trait anxiety. Furthermore, as shown in Table 2, the athletes with higher psychological resilience reported lower frequencies of organizational stressors ($t = -3.89$–-4.65, $p < .01$, $d = 0.28$–0.46), lower levels of competitive trait anxiety ($t = -4.58$ – -6.19, $p < .01$, $d = 0.64$–1.09), and fewer burnout symptoms ($t = -6.92$ – -7.46, $p < .01$, $d = 0.96$–1.10) than those with lower resilience.

Conditional Process Analysis

At the first step, this study tested whether competitive trait anxiety could mediate the relations between the compound score of organizational stressors and burnout symptoms. The simple mediation model analyses indicated that the indirect effects of organizational stressors on burnout symptoms via competitive trait anxiety were significant and positive (effect = .08–.11, Sobel $Z = 3.58$–5.41, $p < .001$). The bootstrapping result also confirmed the Sobel test of the indirect effects not including zero within 95% confidence intervals. These results indicated a significant mediating effect of competitive trait anxiety in the relation between organizational stressors on burnout symptoms. Then, the second step was conducted. Psychological resilience was introduced into the model as a moderator of both the direct effect, and the indirect effect of organizational stressors on burnout symptoms in a moderated mediation model. As shown in Table 3, the interaction between organizational stressors and psychological resilience was significant and negative on competitive trait anxiety ($B = -0.07$, $t = -2.08$, $p = .037$), and on burnout symptoms ($B = -0.06$ – -0.08, $t = -1.95$ – -2.01, $p < .05$), indicating that psychological resilience moderated the relations between organizational stressors and competitive trait anxiety as

Table 1 Correlations and Descriptive Statistics for Athletes

	1	2	3	4	5	6	7	8	9	10	11	12
1. OSI-SP G & D	–											
2. OSI-SP L & O	.73	–										
3. OSI-SP T & C	.69	.73	–									
4. OSI-SP coaching	.61	.68	.72	–								
5. OSI-SP selection	.70	.64	.70	.61	–							
6. Psychological resilience	−.26	−.24	−.16	−.15	−.21	–						
7. Somatic Anxiety	.40	.37	.35	.26	.34	−.33	–					
8. Worry	.45	.30	.34	.24	.38	−.27	.57	–				
9. Concentration disruption	.34	.36	.32	.23	.28	−.31	.67	.60	–			
10. Reduced accomplishment	.38	.38	.34	.36	.28	−.36	.39	.35	.42	–		
11. Sport devaluation	.30	.36	.24	.28	.18	−.35	.32	.22	.36	.66	–	
12. Exhaustion	.38	.42	.32	.37	.30	−.33	.36	.26	.28	.58	.66	–
M	1.85	1.38	1.47	1.23	1.80	3.84	2.19	2.80	2.23	2.51	2.11	2.25
SD	0.92	0.91	1.16	1.24	1.24	0.59	0.52	0.65	0.50	0.59	0.73	0.73

OSI-SP = Organizational Stressor Indicator for Sports Performers; G & D = goals and development; L & O = logistics and operations; T & C = team and culture; All correlation coefficients are significant ($p < .01$)

well as between organizational stressors and burnout symptoms (see Figs. 2 and 3).

Next, as shown in Table 4, a more detailed estimation of the conditional indirect and direct effects was conducted for psychological resilience values at different points of the distribution. All three conditional indirect effects were significantly positive and statistically different from zero based on 95% bootstrap CIs and decreased as psychological resilience increased. In other words, the indirect effect of the frequency of organizational stressors on burnout symptoms through competitive trait anxiety was weaker for participants with high psychological resilience. Similarly, moderation of the direct relations between organizational stressors and burnout symptoms indicated that high levels of resilience, mean levels, and low level of resilience were differentiated by their effects. Thus, the direct effect of organizational stressors on burnout symptoms and the indirect effect of organizational stressors on burnout through competitive trait anxiety were more likely to be observed when psychological resilience was moderated to low than when psychological resilience was high.

Discussion

This study provides a novel empirical examination of the relationships between organizational stressors, anxiety, and burnout due to psychological resilience in a sports context. First, the mediation analysis showed that the relationship

Table 2 Means (Standard Deviations) by Different Levels of Psychological Resilience among Variables

Variable	Higher levels of psychological resilience (n=230)	Lower levels of psychological resilience (n=276)
Psychological resilience	4.31 (0.37)	3.45 (0.46)
OSI-SP goals and development	1.65 (0.94)	2.02 (0.87)
OSI-SP logistics and operations	1.20 (0.92)	1.53 (0.87)
OSI-SP team and culture	1.25 (1.16)	1.66 (1.12)
OSI-SP coaching	0.99 (1.23)	1.43 (1.28)
OSI-SP selection	1.53 (1.26)	2.02 (1.18)
Somatic anxiety	2.03 (0.50)	2.31 (0.51)
Worry	2.66 (0.64)	2.92 (0.64)
Concentration disruption	2.10 (0.47)	2.34 (0.50)
Reduced accomplishment	2.32 (0.57)	2.66 (0.56)
Sport devaluation	1.86 (0.71)	2.32 (0.68)
Exhaustion	2.01 (0.73)	2.44 (0.67)

Table 3 Model Coefficients for the Conditional Process Model

	CTA		RA		SD		EPE	
Antecedent	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
OS	0.22**	.02	0.16**	.03	0.17**	.04	0.26**	.04
PR	−0.22**	.03	−0.20**	.03	−0.30**	.05	−0.26**	.05
CTA	–	–	0.33**	.05	0.25**	.07	0.21**	.07
OS × PR	−0.07*	.03	−0.06*	.03	−0.06*	.03	−0.08*	.04

Unstandardized regression coefficients are reported. OS = organizational stressors; PR = psychological resilience; CTA = competitive trait anxiety; RA = reduced accomplishment; SD = sport devaluation; EPE = emotional/physical exhaustion. *$p < .05$, **$p < .01$

between organizational stressors and athlete burnout was mediated by competitive trait anxiety through a positive indirect effect. Second, the results indicated some support for the hypothesis that competitive trait anxiety mediated the relationships between organizational stressors and athlete burnout, which decreased as psychological resilience scores increased. In other words, organizational stressors are less likely to induce burnout symptoms via competitive trait anxiety in young athletes with greater psychological resilience. In contrast, for those with poor psychological resilience, organizational stressors are more likely to induce their burnout symptoms directly, and also indirectly via competitive trait anxiety.

As expected, the preliminary analysis found that young athletes with higher levels of psychological resilience reported lower levels of perceived organizational stressors, competitive trait anxiety, and burnout symptoms than those with poorer psychological resilience. This result supports previous research findings (Sorkkila et al., 2019), which indicated that student athletes with a lower level of psychological resilience were more likely to drop out of sport and report burnout symptoms. Hence, psychological resilience functions as a protective factor that helps performers withstand the distinct stressors that they experience in sports settings. The ability to bounce back from stressful situations may protect athletes from burning out. In addition, protective factors such as high self-esteem, strong problem-solving skills, and social support

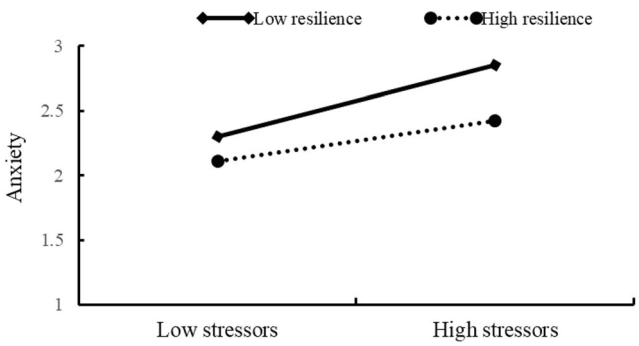

Fig. 2 Psychological resilience as a moderator in the relationship between organizational stressors and competitive trait anxiety

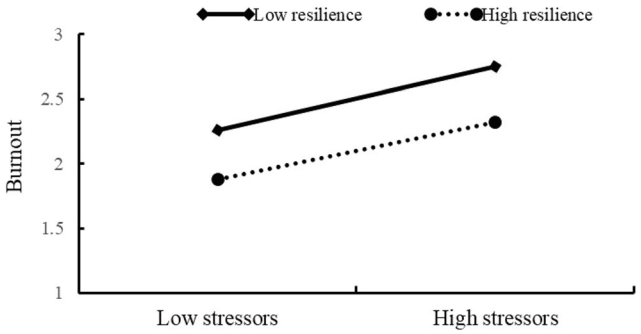

Fig. 3 Psychological resilience as a moderator in the relationship between organizational stressors and the compound burnout score

are characteristic of resilient individuals and contribute to good mental and physical health and a better functioning immune system (Van Schrojenstein Lantman et al., 2017). Therefore, psychological resilience is important for athletes because they need a range of qualities to help them adapt to and recover from stressful events. These preliminary findings also support our prediction that psychological resilience is an important element of the patterns of association between organizational stressors and athlete burnout.

Regardless of psychological resilience levels, organizational stressors can contribute to athlete burnout by inducing high levels of competitive trait anxiety in young athletes. This result is consistent with Smith's (1986) cognitive–affective model of athlete burnout, which describes burnout as a reaction to chronic stress in sports settings. This model explains how stress results from an imbalance between environmental demands and personal and social resources. When stress emerges, individuals initiate cognitive appraisal processes to evaluate the likelihood of potential consequences. If individuals frequently appraise the potential outcomes of stressful events as harmful or dangerous, it might predispose them to inappropriate stress responses such as anxiety, anger, and guilt. In turn, these inappropriate responses to chronic stress may induce burnout symptoms including psychological, emotional, and physical withdrawal from a formerly pursued activity. Previous studies have identified organizational stressors as antecedents of burnout in elite athletes (Gustafsson et al., 2008; Tabei et al., 2012) and have shown that controlling behavior in coaches can affect athlete burnout through competitive trait anxiety (Cho et al., 2019). In cardiac surgery patients, trait anxiety was identified as an important mediator of postoperative stress and depression (Kok et al., 2016). Exposure to stressful situations may predispose individuals to develop a more sensitive autonomic system that affects how they process and cope with stressful events, thus ultimately affecting their mental health. In summary, our findings support previous research that has shown that environmental stressors such as excessively controlling coaching behavior can increase competitive anxiety levels in athletes, which in turn can lead to athlete burnout.

Table 4 Indirect and Direct Effects for the Conditional Process Model

	Indirect Effect [95% CI]			Direct Effect [*SE*]		
Value of PR	RA	SD	EPE	RA	SD	EPE
−0.60	.09 [.05, .13]	.07 [.03, .11]	.06 [.02, .10]	.16 [.03]	.17 [.05]	.29 [.05]
0.00	.07 [.04, .11]	.06 [.02, .09]	.05 [.01, .08]	.15 [.02]	.17 [.04]	.26 [.04]
0.60	.06 [.03, .10]	.04 [.02, .09]	.04 [.01, .07]	.15 [.04]	.16 [.05]	.23 [.05]

Unstandardized regression coefficients are reported. Bootstrap sample size = 1000. CI = confidence interval. PR = psychological resilience; RA = reduced accomplishment; SD = sport devaluation; EPE = emotional/physical exhaustion

Importantly, the present study indicated that organizational stressors exhibit a stronger indirect effect on athlete burnout via competitive trait anxiety when participants' psychological resilience is lower. As mentioned above, competitive trait anxiety mediates the relationship between organizational stressors and athlete burnout. Those athletes with lower levels of psychological resilience are more likely to view organizational issues such as goals, logistics and operations, team and culture, coaching, and selection as a threat, which may in turn shape their dispositional tendency to high anxiety in sports performance settings. A predisposition to competitive trait anxiety may cause athletes to run the risk of becoming burned out (Goodger et al., 2007). That is, less resilient athletes tend to perceive environmental demands as threatening, and experience more frequent bouts of worry, nervous physiological responses, and concentration problems. This phenomenon provides further support for Smith's (1986) cognitive–affective model of athlete burnout, which emphasizes the important influence of personality factors (e.g., self-concept, locus of control) on cognitive appraisal. For athletes with higher levels of psychological resilience, the indirect effect of organizational stressors on athlete burnout via competitive trait anxiety was weaker. Given that the preliminary analysis indicated lower levels of organizational stressors and competitive trait anxiety in participants with higher levels of psychological resilience, those athletes who were more resilient were less likely to perceive sport-related stress and adversity as threats. Previous research has also indicated that rather than using disengagement and distraction-oriented coping strategies, more resilient athletes are more likely to use potentially adaptive coping strategies, such as a task-oriented coping strategy (Secades et al., 2016). The use of more task-focused strategies (active coping, planning, instrumental support, positive reframing) is effective in helping athletes to solve problems and release negative emotions, which can lower levels of worry and threat appraisal (Dias et al., 2012).

Similar to previous research (Wagstaff et al., 2018), the present findings suggest that the direct effect of organizational stressors on burnout symptoms is reduced in participants with higher levels of psychological resilience. One possible explanation is that psychological resilience acts as a buffer against potential negative outcomes in response to organizational stressors encountered in sports settings. As mentioned above, more resilient individuals are likely to perceive stressors as opportunities for personal and skill development by using constructive challenge appraisals. Although it is beyond the scope of this study to examine the links between psychological resilience and coping strategies, future research could investigate such relationships further. This study's findings are also consistent with a recent study that reviewed the relationship between personality factors such as perfectionism, hope, optimism, and perceived control, and athlete burnout (Gustafsson et al., 2017).

The main limitation of the present study was the use of a cross-sectional self-report design, which limited the extent to which cause-effect relationships could be inferred from the findings. Future researchers are encouraged to expand on the findings of this study by replicating the present model using a longitudinal design to identify more definitive causal relationships. A second limitation is that the study made use of a convenience sample of athletes, many of which were from specific geographic areas, and thus the generalizability of the findings may be limited. A third limitation is the sample of mainly young, regional- and national-level athletes. There is evidence that athletes competing at different levels experience different frequencies of organizational stressors (Arnold et al., 2016). The imbalanced sample in our study potentially confounds the findings. It is suggested that future research considers this issue to enhance the clarity of the stress–burnout relationship.

In summary, our findings contribute to the knowledge of stress and burnout and extend theory and research on the factors that mediate or moderate the links between stressors and athlete burnout. According to our findings, psychological resilience and competitive trait anxiety are important variables that influence the dynamics of organizational stressors in relation to burnout symptoms in athletes. Given that athletes with lower levels of psychological resilience run the risk of appraising organizational stressors as threats, sports practitioners should develop resilience-training interventions to help them enhance those qualities that develop psychological resilience. For sports organizations, a more pervasive method for reducing the incidence of burnout would be to minimize the demands on athletes. The development of intraindividual resources and

organizational-level improvements could help to prevent and alleviate athlete burnout in sports organizations.

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Data Availability The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Conflicts of Interest/Competing Interests The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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