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## Personality, stress, coping and coping effectiveness in aiming sport

**Chandan Preet and Shruti Shourie**

### Abstract

Aiming sports are assumed to be sensitive to stress and pressure demanding effective coping for competitive excellence. Previous research has revealed that personality may affect coping selection in a direct way by restricting or assisting the use of specific coping strategies or in an indirect way by influencing the nature and appraisal of the stressor experienced or coping effectiveness. Surprisingly, little is known about the influence of personality on appraisal and coping with stressor specifically in aiming sport and in sport, in general. The aim of this study was to examine the influence of personality on the appraisal process, coping and perceived effectiveness among 200 national level athletes (male  $n = 100$ , female  $n = 100$ ) aged between 16 and 25 years (mean = 20.43, SD = 3.03) from a variety of aiming sports. Results revealed that personality influenced coping selection, coping effectiveness, and the intensity of the stressor experienced and perceived control, but not the type of stressor reported. Findings indicated that higher level of neuroticism was associated with lower extraversion, conscientiousness, decreased perception of stress control and lower use of problem-focused coping and lower level of neuroticism was associated with higher intensity of stress experienced and higher use of emotion-focused coping. Higher level of neuroticism was also associated negatively with the effectiveness of useful coping strategies. The other four personality dimensions were associated with the usage and effectiveness of more adaptive coping strategies. Therefore, the present study revealed that personality affects coping selection directly and influences the appraisal process, coping and coping effectiveness.

**Keywords:** personality, stress appraisal, coping, coping effectiveness, aiming sport

### Introduction

Stress is an inevitable aspect of aiming sport placing enormous demand on the part of the performer to cope effectively in order to survive cut-throat competitive situations. Inefficacy to cope with these stressors has been linked with decrements in performance (Haney & Long, 1995) <sup>[14]</sup>, diminished satisfaction (Scanlan & Lewthwaite, 1984) <sup>[26]</sup>, increases in the probability of physical injury (Smith, Ptacek, & Smoll, 1992) <sup>[29]</sup>, burnout (Smith, 1986) <sup>[28]</sup>, and sport withdrawal (Klint & Weiss, 1986) <sup>[18]</sup>. In competitive sport, instances of stressors include committing psychological or physiological errors, experiencing pain or injuries, inability to concentrate because of distracting crowd, being affected from external events such as bad or inferior playing conditions and noticing a fellow competitor cheat (e.g., Anshel, Jamieson & Ravi, 2001a; Nicholls, Holt, Polman, & Bloomfield, 2006) <sup>[1, 23]</sup>. The process by which an individual attempt to curtail the negative effects of stress is called coping. Researchers suggest that athletes use a wide range of coping strategies in order to try to reduce stress and that they can be adept at dealing with the challenges and threats they encounter (Nicholls & Polman, 2007) <sup>[21]</sup>. Common coping strategies in sport include increasing effort, seeking social support, avoidance, wishful thinking, changing tactics, problem-solving, confrontation, relaxation or arousal control, and planning (Crocker, Tamminen, & Gaudreau, 2015) <sup>[8]</sup>.

Personality has been considered an important factor that could influence each aspect of the stress-coping process. The Big Five personality dimensions could affect coping selection in: (a) an indirect way by influencing the type, frequency and intensity of the stressors experienced or coping effectiveness or, (b) in a direct way by restricting or assisting the use of specific coping strategies (Bolger & Zuckerman, 1995; DeLongis & Holtzman, 2005) <sup>[5, 11]</sup>. The labels provided for the five personality dimensions are easily misunderstood (John &

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Srivastava, 1999)<sup>[16]</sup>, so a brief description of each dimension is provided. Neuroticism contrasts emotional constancy and even-temperedness with negative affectivity and includes traits like experiencing negative emotional states, generation of irrational ideas, and being impulsive and self-conscious. Extraversion implies an energetic approach towards the social and material world and is characterized by the tendency to experience positive emotions, be outgoing, cheerful, active, and self-assured. Agreeableness contrasts a pro-social and communal orientation towards others with antagonism and is associated with being unselfish, compliant, trusting, modest, and helpful. Conscientiousness depicts socially prescribed impulse control and assists task and goal directed behaviours. This includes characteristics like purposefulness in cognition and behaviour, organization, delayed gratification, strong-mindedness, and self-discipline. Finally, Openness to Experience refers to extensiveness, inventiveness, and complexity of an individual's mental and experiential life. This includes traits such as being creative, inquisitive, having unconventional values, and having a flexible way of thinking (John & Srivastava, 1999)<sup>[16]</sup>.

Astoundingly, little is understood about the influence of personality on appraisal, coping, and coping effectiveness with stressors specifically in the context of aiming sport and sport in general. Indeed, a meta-analysis on this topic by Connor-Smith and Flachsbart (2007)<sup>[7]</sup> did not contain any sport related studies. Previous research has demonstrated that personality results in individuals appraising specific events as more or less harmful or threatening and under or over-estimating their personal resources to cope (Semmer, 2006; Suls & Martin, 2005)<sup>[27, 31]</sup>. Indeed, Gunthert & Cohan (1999)<sup>[13]</sup> showed that college students high in neuroticism reported higher levels of stress and reduced levels of confidence to cope with daily stressors. Additionally, studies have found that individuals high on neuroticism experience negative events more frequently (Bolger & Zuckerman, 1995; Gunthert *et al.*, 1999; Magnus, Diener, Fujita & Pavot, 1993; Ormel & Wohlfarth, 1991)<sup>[5, 13, 20, 24]</sup>. Extraverts, on the other hand, report more positive events (Zautra, Affleck, Tennen, Reich, & Davis, 2005)<sup>[33]</sup> and higher levels of agreeableness have been associated with fewer social conflicts (Asendorph & Wilpers, 1998)<sup>[4]</sup>.

Apart from the role of personality in stress-appraisal process, previous literature provides direction that personality not only plays an important role in the stress appraisal process, but also in the way individuals cope with stress. As suggested by David & Suls, 1999; Suls & Martin, 2005<sup>[10, 31]</sup>, the type and appraisal of the stressor interacts with personality to predict the coping strategies an individual employ. Connor-Smith and Flachsbart (2007)<sup>[7]</sup> suggests that personality may directly influence coping by withdrawal from threats, facilitating approach to rewards, and engagement or disengagement of attention. For example, the high energy and social ability of extraverts may promote the seeking of social support. Neurotics, on the other hand, might use more disengagement coping because of their sensitivity to threats (Connor-Smith & Flachsbart, 2007)<sup>[7]</sup>.

Lastly, personality may also indirectly influence the effectiveness of coping strategies. Coping effectiveness refers to 'the extent to which the coping strategy, or combination of strategies, is successful in alleviating the negative emotions caused by stress' (Nicholls & Polman, 2007a; p. 15)<sup>[22]</sup>. When analysing the effectiveness of coping, it is important to bear in mind that there is an important difference between using a coping strategy and using it effectively (Suls & David, 1996)<sup>[30]</sup>. Research has revealed that not all coping strategies

are universally beneficial or detrimental. However, most research in the area of coping effectiveness suggests that reliance on problem-focused, rather than emotion-focused or avoidance coping strategies is related with more beneficial outcomes (Aldwin, 2007; Compas, Connor-Smith, Saltzman, Harding Thomsen, & Wadsworth, 2001)<sup>[1, 6]</sup>. However, coping strategies that are beneficial for some individuals may be less effective, or even harmful, for someone with different personality traits (Bolger & Zuckerman, 1995; DeLongis & Holzman, 2005)<sup>[5, 11]</sup>.

Based on suggestions from previous related literature, the current investigation therefore, aims to examine the influence of personality on the appraisal process, coping and perceived effectiveness among athletes from a variety of aiming sports. It is uncertain whether findings from the domain of general psychology can be extrapolated to the realm of sport. Therefore, the present study is unique in that to date no studies have explored the relationship between personality, stressor type, stressor appraisal, coping, and coping effectiveness in aiming sport.

### Participants and Procedure

Participants were purposefully sampled on the criterion that they had competed at national or international level in last 3 months. This criterion was adopted in order to ascertain that the demands of the competitive sport required participants to experience stress and cope effectively in order to perform successfully. After research ethics board approval, four national coaches were sent a letter describing the study and were requested to cooperate in recruiting participants. Coaches were asked to identify shooters who would qualify for the study and to provide them with copies of consent forms. Shooters who were interested in participating returned signed participant consent forms to the coach. The coaches gave completed forms to the first author, who then invited interested shooters to fill the questionnaire. Two hundred participants (male  $n = 100$ , female  $n = 100$ ), aged between 16 and 25 years (mean = 20.43, SD = 3.03) from a variety of aiming sports such as rifle, pistol, skeet, trap, double trap shooting completed the questionnaire. The participants had been shooting competitively at national and international levels for 5-10 years.

### Measures

After gathering demographic and general shooting information (e.g., shooting discipline, events of participation, training facilities available) participants were asked to complete the 44-item Big Five Inventory (John & Srivastava, 1999)<sup>[16]</sup>. It measures conscientiousness (C), agreeableness (A), neuroticism (N), Openness (O), and extraversion (E) using a five-point rating scale ranging from 1 = *disagree strongly* to 5 = *agree strongly*. Following this, participants were asked to report the most intense sport stressor they had experienced in the previous three months and rate the level of stress intensity and control experienced over the self-reported stressor using a horizontal visual analogue scale. Subsequently, participants completed the 48-item modified Cope (Mcope; Crocker & Graham, 1995)<sup>[9]</sup>. Out of twelve coping strategies, problem-focused coping comprised of active coping, seeking social support for instrumental reasons, planning, suppression of competing activities, increasing effort; emotion-focused coping included seeking social support for emotional reasons, humour, venting of emotion, self-blame, wishful thinking emotion-focused coping; and avoidance coping comprised of denial, behavioural disengagement. Each item is scored on a five-point scale

starting with to use 'not at all/ very little' (1) to use 'very much' (5). The score for each subscale is calculated by adding the scores of the questions related to the scale divided by the number of items. There is extensive evidence supporting the reliability of the MCOPE scales (e.g., Crocker & Isaak, 1997). Thus, all questions were answered in reference the self-reported stressor by each shooter. The time needed to complete the questionnaires was approximately 20 minutes.

### Data Analysis

Data was analysed using IBM SPSS statistics version 22 for Windows. In accordance with Gunthert *et al.*, (1999)<sup>[13]</sup> seven stressor categories were created for statistical analysis: (a) injury, (b) error (technical/tactical), (c) outcome (not achieving performance goals), (d) performance (technique and fitness), (e) psychological (anxiety and confidence), (f) external factors (officials, opponent, and environmental), (g) significant others (parents or coach). The researchers independently coded a random sample of 40 stressors each. The two coders agreed on 36 of the 40 stressors. Following discussion of the cases in which there was disagreement, first author categorized the remainder of the stressors. This method was used to reduce the potential number of stressors reported and because previous research has shown that individual description of stressors can be grouped into similar stress categories (Nicholls, Polman, Levy, Taylor, & Cobley, 2007)<sup>[21]</sup>. Mean, standard deviations and internal consistency were calculated prior to statistical analysis. To assess the homogeneity of the sample an independent t-test was first conducted to explore whether the male and female shooters differed in age and years of experience. Stepwise multiple regression analyses were conducted to examine whether personality was associated with self-reported stressor, perceived stress intensity and perceptions of control.

Following this, correlational analysis and hierarchical regression analysis was conducted to investigate the association between coping, coping effectiveness, and five dimensions of personality (E, A, C, N, O). The regression analysis controlled for gender, stress intensity, perceived control, and stressor type. Therefore, the statistical procedure served the primary aim of the study to explore whether personality predicted the selection of coping strategies and self-ratings of coping effectiveness above and beyond the variance explained by gender, stress intensity, perceived control, and stressor type.

### Results

Table 1.1 provides the means and standard deviations for the coping strategies and for coping effectiveness. The mean for stress intensity was  $M = 8.62$ ,  $SD = 0.75$  and for perceived control  $M = 3.55$ ,  $SD = 1.01$ . The mean and standard deviations for the personality scales were as follows: Extraversion  $M = 25.68$ ,  $SD = 4.93$ ; Agreeableness  $M = 33.48$ ,  $SD = 4.38$ ; Conscientiousness  $M = 26.38$ ,  $SD = 5.27$ ; Neuroticism  $M = 21.88$ ,  $SD = 5.15$ ; and Openness  $M = 23.59$ ,  $SD = 3.88$ .

The correlational analysis (see Table 1.2) was conducted to investigate the influence of personality on stress appraisal, coping and coping effectiveness. Findings indicated that higher level of neuroticism was associated with lower extraversion, conscientiousness, decreased perception of stress control and lower use of problem-focused coping and lower level of neuroticism was associated with higher intensity of stress experienced and higher use of emotion-focused coping. Higher level of neuroticism was also associated negatively with the effectiveness of useful coping strategies.

**Table 1:** Mean and standard deviations for each of the coping strategies and coping effectiveness

	Coping		Coping Effectiveness	
	M	SD	M	SD
Active coping	4.50	0.16	4.40	0.22
Instrumental social support	3.63	0.22	3.40	0.24
Planning	4.32	0.21	4.13	0.21
Suppressing competing activities	4.37	0.22	4.14	0.24
Increasing effort	4.59	0.25	4.48	0.26
Problem focused coping	21.40	0.51	20.54	0.52
Emotional social support	4.06	0.36	4.01	0.33
Humour	1.55	0.36	1.17	0.21
Venting emotions	3.73	0.26	3.65	0.26
Self-blame	3.65	0.15	2.81	0.70
Wishful thinking	3.68	0.20	2.70	1.14
Emotion focused coping	16.67	0.65	14.33	1.36
Denial	2.96	0.57	2.74	0.64
Behavioural disengagement	2.30	0.30	2.30	0.29
Avoidance coping	5.26	0.63	5.04	0.71

The other four personality dimensions were associated with the usage and effectiveness of more adaptive coping strategies. The regression analysis for stress intensity was significant ( $R^2 = .26$ ,  $p < .001$ ). Higher levels of neuroticism ( $\beta = .31$ ;  $p < .001$ ) were associated with increased levels of stress intensity ( $\beta = .31$ ;  $p < .001$ ), and higher levels of conscientiousness ( $\beta = -.32$ ;  $p < .001$ ) with lower levels of stress intensity. The regression analysis for perceived control

was also significant ( $R^2 = .17$ ;  $p < .05$ ). Higher levels of neuroticism ( $\beta = -.36$ ;  $p < .001$ ) were associated with lower perceptions of control and higher level of conscientiousness ( $\beta = .14$   $p < .05$ ), predicted higher level of perceived control. The other personality scales did not predict stress intensity or perceived control. The personality traits did not predict the selection of stressor type.

**Table 2:** Correlations between personality and coping, coping effectiveness, stressor intensity and stressor control

Coping		E	A	C	N	O
Active coping	Coping	.093	.024	.107	-.055	-.022

	Effectiveness	.142*	-.009	.161*	-.207**	-.110
Instrumental social support	Coping	.255**	.016	.231**	-.099	.055
	Effectiveness	.249**	.000	.219**	-.084	.090
Planning	Coping	.262**	.071	.170*	-.142*	.054
	Effectiveness	.274**	-.023	.178*	-.192**	.036
Supressing competing activities	Coping	.241**	.091	.215**	-.164*	-.033
	Effectiveness	.271**	.051	.218**	-.193**	-.038
Increasing effort	Coping	.233**	.117	.161*	-.177*	-.040
	Effectiveness	.117	.071	.055	-.134	.088
Problem focused coping	Coping	.475**	.143*	.382**	-.281**	.005
	Effectiveness	.469**	.045	.369**	-.359**	.037
Emotional social support	Coping	.543**	-.147*	-.018	-.221**	-.043
	Effectiveness	.497**	-.117	-.030	-.236**	.039
Humour	Coping	-.118	-.234**	-.274**	.374**	.105
	Effectiveness	.087	-.062	-.034	.017	.062
Venting emotions	Coping	-.058	-.033	-.209**	.173*	-.035
	Effectiveness	-.022	.024	-.149*	.111	-.056
Self-blame	Coping	-.063	-.077	-.064	.281**	.011
	Effectiveness	-.043	-.093	.004	.025	.001
Wishful thinking	Coping	-.106	-.125	-.198**	.221**	.065
	Effectiveness	.000	-.009	-.039	.007	-.064
Emotion focused coping	Coping	.168*	-.284**	-.324**	.291**	.043
	Effectiveness	.109	-.089	-.072	-.015	-.044
Denial	Coping	-.050	.044	-.156*	.086	-.125
	Effectiveness	-.058	.018	-.160*	.064	-.097
Behavioural disengagement	Coping	.046	.030	-.073	-.064	-.035
	Effectiveness	.040	.013	-.075	-.057	-.034
Avoidance coping	Coping	-.024	.055	-.177*	.048	-.131
	Effectiveness	-.036	.022	-.174*	.035	-.101
Stress Appraisal		E	A	C	N	O
Stress intensity		-.163*	-.172*	-.430**	.423**	-.069
Stress control		.195**	.133	.262**	-.408**	.083

\*\* . Correlation is significant at the 0.01 level (2-tailed)

\* . Correlation is significant at the 0.05 level (2-tailed)

The hierarchical regression analysis (see Table 1.3) was conducted to investigate the association between coping, coping effectiveness, and five dimensions of personality (E, A, C, N, O) whilst controlling for gender, stress intensity, perceived control, and stressor type.

**Table 3:** Results of hierarchical regression analysis for coping and coping effectiveness whilst controlling for gender, stress intensity, perceived control and stressor type

Coping		ΔR <sup>2</sup>	Significant β Predictors
Active coping	Coping	.04 <sup>ns</sup>	–
	Effectiveness	.06*	N, β = -.187
Instrumental social support	Coping	.10**	E, β = .22; C, β = .21
	Effectiveness	.11**	E, β = .22; C, β = .21
Planning	Coping	.07*	E, β = .23
	Effectiveness	.06*	E, β = .21
Supressing competing activities	Coping	.08*	E, β = .18
	Effectiveness	.09*	E, β = .20
Increasing effort	Coping	.09**	E, β = .18; N, β = -.16
	Effectiveness	.04 <sup>ns</sup>	–
Problem focused coping	Coping	.33**	E, β = .39; C, β = .29; N, β = -.15
	Effectiveness	.27**	E, β = .33; C, β = .25; N, β = -.16
Emotional social support	Coping	.41**	E, β = .59; A, β = -.21; C, β = -.17; N, β = -.13
	Effectiveness	.34**	E, β = .53; A, β = -.16; C, β = -.18; N, β = -.15
Humour	Coping	.14**	N, β = .31; A, β = -.19
	Effectiveness	.01 <sup>ns</sup>	–
Venting emotions	Coping	.05*	C, β = -.20
	Effectiveness	.03 <sup>ns</sup>	–
Self-blame	Coping	.06*	N, β = .30
	Effectiveness	.00 <sup>ns</sup>	–
Wishful thinking	Coping	.05 <sup>ns</sup>	–
	Effectiveness	.00 <sup>ns</sup>	–
Emotion focused coping	Coping	.28**	E, β = .43; A, β = -.27; N, β = .28; C, β = -.27
	Effectiveness	.02 <sup>ns</sup>	–
Denial	Coping	.03 <sup>ns</sup>	–
	Effectiveness	.03 <sup>ns</sup>	–
Behavioural disengagement	Coping	.03 <sup>ns</sup>	–
	Effectiveness	.02 <sup>ns</sup>	–
Avoidance coping	Coping	.05 <sup>ns</sup>	–
	Effectiveness	.04 <sup>ns</sup>	–

\*p < .05; \*\* p < .01; ns = not significant

As shown in the results table, findings indicated that neuroticism was significantly associated with lower problem-focused coping (increasing effort) and higher emotion-focused coping (humour and self-blame). However, increased amount of neuroticism was associated with decreased use of seeking emotional social support. As the previous literature suggests, higher level of extraversion predicted increased use of problem-focused coping (seeking instrumental social support, planning, suppressing competing activities and increasing effort). Higher levels of extraversion were also associated with increased use of seeking emotional social support. Contrary to previous studies, lower levels of agreeableness were found to be associated with height use of humour and seeking emotional social support. Openness was not associated with use of any coping strategy as a significant predictor. Finally, as expected, higher conscientiousness predicted increased use of problem-focused coping (seeking instrumental social support, planning), and decreased use of emotion-focused coping (seeking emotional social support, venting emotions).

### Discussion

The purpose of the present study was to examine the influence of personality on the stress appraisal process, coping and perceived effectiveness among athletes from a variety of aiming sports. The present study is unique in that to date no studies have explored the relationship between personality, stressor type, stressor appraisal, coping, and coping effectiveness in aiming sport. Findings revealed that personality affects coping selection in a direct way by restricting or assisting the use of specific coping strategies and in an indirect way by influencing the nature and appraisal of the stressor experienced and coping effectiveness.

The highly competitive nature of aiming sport requiring utmost precision and technique intensify the stress appraisal for performers during high-strung competitive situations. However, for some athletes, the stress-coping process remains manageable indicating towards underlying factors leading to such differences. In accordance with the previous findings in sport-coping literature, present study revealed that higher levels of neuroticism are associated with increased levels of stressor intensity for the self-selected stressor (e.g., Bolger & Zuckerman, 1995)<sup>[5]</sup> and decreased levels of perception of control over stress experienced. As suggested by Gunther *et al.* (1999)<sup>[13]</sup>, people high in neuroticism intensify the degree of threat perceived by undesirable events (i.e., primary appraisal), resulting in increased stress intensity, and underestimation of personal resources (secondary appraisal) to cope with the event resulting in lower perceptions of control over the situation.

Another factor that emerged as a significant predictor of stress appraisal process was conscientiousness. Higher levels of conscientiousness predicted decreased perception of stress intensity and increased perception of control over stressful situation. Conscientiousness depicts socially prescribed impulse control and assists task and goal directed behaviours. Individuals high on this dimension are said to be purposeful in cognition and behaviour, organized, strong-minded, and self-disciplined. The description of the dimension itself explains why athletes high on conscientiousness appraise stressful events as less threatening and are likely aware of their personal coping resources leading to higher perception of control over stress experienced. As opined by Lazarus & Folkman (1984)<sup>[19]</sup>, perception of stress and control might influence the selection of coping strategies. Therefore, findings of the present study contribute valuable insights to

the stress-coping literature in sport.

The correlational analysis (see Table 1.2) was conducted to investigate the influence of personality on stress appraisal, coping and coping effectiveness. Findings indicated that higher levels of neuroticism were associated with lower levels of problem-focused coping (planning, suppressing competing activities, increasing effort) and higher levels of ineffective emotion-focused coping strategies (humour, venting emotions and self-blame). Although people high on neuroticism used these emotion-focused coping, literature suggests that deploying a strategy more frequently does not necessarily guarantee effectiveness. Athletes high in neuroticism appear to use ineffective coping strategies with poorer outcomes (Roesch, Wee, & Vaughn, 2006; Vollrath & Togersen, 2000)<sup>[25, 32]</sup>. The results of the present investigation echo with the same notion suggesting that higher levels of neuroticism were associated with lower coping effectiveness scores for active coping, planning, suppressing competing activities and seeking social emotional support. Also, athletes high on neuroticism deployed emotion-focused coping strategies such as humour, venting emotions and self-blame, but failed to find these strategies effective in alleviating negative effects of stressful situation. As previous research suggests, athletes scoring high in extraversion used more seeking instrumental and emotional social support (Amirkham, Risinger, & Swickert 1995; Fickova, 2001; Hooker, Frazier & Monahan, 1994)<sup>[2, 12, 15]</sup>. The present study supports these findings and indicate that higher levels of extraversion being positively associated with adaptive coping strategies.

However, an interesting finding emerged highlighting complex relationship between coping and coping effectiveness. Athletes high on extraversion extensively used problem-focused coping such as increasing effort but did not find it effective. Conversely, active coping was not deployed, yet was believed to be effective. Therefore, further investigation into coping effectiveness is suggested. In agreement with previous findings, athletes high on conscientiousness used more adaptive coping strategies (seeking instrumental social support, planning, suppressing competing activities, increasing effort and seeking emotional social support), except for active coping, and used less avoidance (denial) and maladaptive emotion-focused coping strategies (humour, venting emotions and wishful thinking). Active coping, however, was not deployed but was reported to be effective. Most maladaptive coping strategies were also found to be effective, except increasing effort. Also, effectiveness of humour, venting emotions, wishful thinking and denial was found to negatively related with conscientiousness.

Agreeableness surprisingly was found to be negatively associated with seeking emotional social support and humour. This socially-oriented dimension is associated with being unselfish, compliant, trusting, modest, and helpful with others. However, aiming sport being strictly individualistic demand lesser reliance on others as compared to team sport which possibly explain the differences in present findings. Likewise, openness was not significantly associated with any coping strategy. The direction of these differences appears to be consistent with the situational constraints inherent in competitive sport participation. For example, competitive sport may allow sufficient stimulation for those high in extraversion but by the same token has an organizational structure which might not allow sufficient novel experiences for those high in openness (Kaiseler, 2012)<sup>[12]</sup>. Moreover, the characteristics associated with openness allow those higher in this personality dimension to be flexible in the use of coping

strategies. This might result in the relatively few associations between openness, coping, and coping effectiveness in the present study.

### Conclusion

In conclusion, given the fact that aiming sports are sensitive to competitive stress demanding continuous use of adaptive coping for sport excellence, it is important for sport practitioners to unceasingly improve their understanding of the underlying factors contributing towards coping and coping effectiveness under such situations. Therefore, the present study found support for the notion that in sport, personality affects coping selection directly and influences the appraisal process, coping and coping effectiveness. The results of the study are believed to contribute valuable insights specifically in the arena of aiming sport and sport-coping literature in general.

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