



## ***From Pressure to Breaking Point: Exploring Sport Motivation, Big Five Personality Traits, and Sport Anxiety as Antecedents of Burnout in University Athletes***

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The present study examined the relationship between motivation, sport anxiety, big five personality traits and athlete burnout, making use of a cross section research design. A total of 200 university athletes between the ages of 18-26 years participated in the study, completing a battery of scales measuring motivation, sport anxiety, and personality traits. Pearson product moment correlation, multiple hierarchical regression analyses and mediations analyses were conducted to evaluate the results. The findings show that sport motivation (intrinsic regulation, introjected regulation and amotivation), personality traits (neuroticism, conscientiousness), and sport anxiety are correlated with and predicted various dimensions of athlete burnout. Sport anxiety mediated the relationship between introjected regulation, intrinsic regulation and amotivation. The study identified several antecedents of burnout in university athletes than can help address symptoms of burnout and prevent the negative consequences that arise as a result of burnout.

**Keywords:** personality traits, motivation, performance anxiety, athlete burnout.

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### **Introduction**

Athlete burnout is a construct comprising of both cognitive and emotional factors which indicate reduced sense of accomplishment, sport devaluation and a feeling of being physically and emotionally exhausted (Raedeke

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& Smith, 2009). Among the many predictors of athlete burnout is anxiety (Cho et al, 2019); it is related to several deleterious effects such as performance in sports, proneness to experiencing injuries, relationship with coaches, team members and opponents and ability to enjoy competition in sport (Smith & Smoll, 1990). Maciá-Andreu et al. (2023) suggest that university athletes are more likely to experience more challenges and stress due to their dual career leading to emotional, financial and interpersonal issues.

Personality characteristics such as the big five traits are related with sports performance as well as success in sports. Existing literature provides some insight into the relationship between personality and motivation, namely that individuals with high neuroticism perform well when they are extrinsically motivated (Dubros, 2019). Similarly, higher levels of intrinsic motivation were found in extroverted athletes and higher neuroticism (West et al, 2016). Li et al (2018) also suggest that openness, low neuroticism and conscientiousness in addition to autonomous motivation negatively predict physical and emotional exhaustion, a component of burnout. The aim of this study is to examine the relationship between motivation, sports anxiety, big five personality traits and athlete burnout.

## **Methodology**

The data was collected from 200 university students (100 males, 100 females) aged 18 to 25 years using purposive sampling technique. Sample size was calculated using G power analysis ( $\alpha = .05$ , power = .95) with medium effect size. Four instruments were used to collect the data. The Athlete Burnout Questionnaire (ABQ) (Raedeke & Smith, 2009) is a 15-item tool that measures athlete burnout with three subscales (sport devaluation, emotional and physical exhaustion and a reduced sense of accomplishment). ABQ is a psychometrically sound instrument with good construct and convergent validity (Creswell & Eklund 2005) as well as good internal consistency (all Cronbach's  $\alpha$  values  $> .75$ ) (Isoard-Gauthier et al., 2016). The revised Sport Motivation Scale (Pelletier et al, 2013) is an 18-item tool that measures motivation in athletes in six subscales (intrinsic regulation, integrated regulation, introjected regulation, external regulation and non-regulation). Pelletier et al's (2013) original research concluded that the tool has excellent reliability with Cronbach alpha ranging from 0.73 to 0.86. The Sport Anxiety Scale (SAS-2) (Smith et al, 2006) is a 15- item tool that measures anxiety with three subscales (worry, somatic and concentration disruption). SAS-2 is reported to have good reliability with Cronbach's alpha ranging from .74 to .94 (Cho et al, 2019). Finally, the Big Five Inventory (BFI) (John & Srivastava, 1999) was used to measure the participants' personality. The scale has 44 items and five subscales (neuroticism, openness, conscientiousness, extraversion, and agreeableness). BFI has good internal consistency with Cronbach's alpha ranging from .79 to .90 (Alansari, 2016).

The analyses were conducted using Statistical Packages for Social Sciences (SPSS) version 23. The study variables were tested for assumption of normality with Shapiro-Wilk values  $>0.001$ .

## Results

Pearson product moment correlation revealed a moderate relationship between predictors and outcome variables; hence three separate multiple hierarchical regression analyses (stepwise method) were conducted to test the predictors of athlete burnout. All assumptions of linearity, normality and homoscedasticity were fulfilled. In Step 1 of the first regression analysis, intrinsic and introjected regulation significantly predicted RSA,  $F(2, 196) = 10.18, p = .000$  explaining 10% of the variance in RSA. In Step 2, somatic (anxiety) and concentration disruption significantly predicted RSA,  $F(4, 196) = 17.54, p = .000$  explaining 17% of the variance in RSA. On the whole, the analyses accounted for 27% of the variance in RSA.

In Step 1 of second regression analysis, conscientiousness and neuroticism predicted exhaustion,  $F(2, 194) = 18.22, p = .000$ , and explained 16% of the variance. In Step 2, intrinsic, introjected and amotivation regulation significantly predicted exhaustion,  $F(5, 194) = 13.82, p = .000$ , and explained 10% of the variance. In the Step 3, somatic (anxiety) significantly predicted exhaustion,  $F(6, 194) = 20.88, p = .000$  accounting for 13% of the variance in exhaustion. On the whole, the regression analysis accounted for 40% of the variance.

In Step 1 of third regression analysis, conscientiousness and neuroticism significantly predicted sport devaluation,  $F(2, 194) = 10.85, p = .000$  explaining 10% of the variance. In Step 2, intrinsic, introjected and amotivation significantly predicted SD,  $F(5, 194) = 10.59, p = .000$ , and accounted for 11% of the variance in SD. In Step 3, somatic (anxiety), worry and concentration disruption significantly predicted SD,  $F(8, 194) = 14.61, p = .000$ , explaining 16% of the variance. The model on the whole accounted for 39% of the variance in sport devaluation.

Hayes' PROCESS macro was used to conduct the mediation analyses. The results indicated that sport anxiety is a significant partial mediator ( $b = .34, 95\%$  bootstrap CI .10, .59) between intrinsic regulation and athlete burnout. A significant mediating effect (complete mediation) of sport anxiety on introjected regulation and burnout was found ( $b = .09, 95\%$  bootstrap CI .01, .16). Lastly, we also found a significant mediating effect (partial mediation) of sport anxiety between amotivation and athlete burnout ( $b = -.34, 95\%$  bootstrap CI .19, .02).

## Discussion

In the present study, introjected regulation significantly predicted all dimensions of athlete burnout, reflecting existing literature (Holmberg & Sheridan, 2013). However, the positive correlation between intrinsic motivation with burnout here is contrary to the previous literature (Amemiya & Sakairi, 2019). The data in the present study was collected from a collectivistic cultural context where social behaviors are highly influenced by the opinions of community, family, religion and political association and guided by group interdependence and cohesion (Newman & Newman, 2020). This cultural orientation influences people to over commit to their goals (Tang et al, 2013) and intrinsically motivated people from collectivistic cultures tend to invest more time and effort to achieve a goal if they feel a sense of obligation to their community, consequently leading to burnout.

The negative relationship between amotivation and athlete burnout in the present students also contrasts with the existing literature (Cresswell & Eklund, 2005). Amotivation is negatively correlated with sport commitment (Zahariadis et al, 2006) and sport commitment is positively correlated with burnout (Chaouch, 2013). It can be speculated that less motivation leads to less commitment which in turn can lead to lower burnout levels.

The findings also indicate a positive relationship between sport anxiety and all the subscales of athlete burnout. These findings partially correspond to the results by Cho et al (2019) with the exception that their research found no relationship between sport anxiety and reduced sense of accomplishment. The contradictory results of the current research can be viewed once again from the perspective of cultural orientation. Individuals from a collectivistic orientation context, may communicate their psychological distress in the form of somatic symptoms (Choi et al, 2016).

## **Conclusion**

The findings of the study show that different types of motivation (intrinsic, introjected, amotivation), sport anxiety and personality variables (neuroticism, conscientiousness) predicted burnout, while sport anxiety mediated the relationship between motivation and burnout in university athletes. These findings, however, need to be considered in the light of the limitations of the study. The sample consisted entirely of university athletes who had academic responsibilities in addition to the sport they played. That factor alone could influence students' burnout, motivation and anxiety levels. Similarly, this research made no attempt to differentiate between participants who played individual or team sport, a factor that has unique implications for our study variables.

## **Disclosure**

The authors declare that they have no conflicts of interest regarding the publication of this paper.

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