

ABSTRACT

Previous research has shown that having higher grit (perseverance and passion towards long-term goals) can help reduce athlete burnout and improve well-being in female collegiate Division I athletes. However, these outcomes are limited to a single athlete population in the southern USA highlighting a need to examine more athlete samples. Moreover, sports anxiety, an important factor in athletic performance, can dramatically impact an athlete's well-being and may be influenced by someone's grit. Yet, grit, athlete burnout, and sports anxiety have not been examined simultaneously in female collegiate athletes. **PURPOSE:** To determine if grit has a modulating effect on athlete burnout and sports anxiety in female collegiate athletes from the southwestern USA. **METHODS:** Female collegiate Division I athletes (n=42) from a university in the southwestern USA completed an online Qualtrics survey that included demographic questions and questions assessing for grit (using the Grit Scale), athlete burnout (Athlete Burnout Questionnaire/ABQ), and sports anxiety (Sports Anxiety Scale-2/SAS-2). Linear regression analyses were used to examine the predictive relationships ($p < 0.05$). **RESULTS:** In this sample, overall grit was approaching significant negative predictions with overall athlete burnout ($p = 0.053$, $R^2 = 0.90$, $\beta = -0.014$) and sport devaluation ($p = 0.081$, $R^2 = 0.07$, $\beta = -0.168$), but there were significant negative predictions with physical and emotional exhaustion ($p < 0.001$, $R^2 = 0.12$, $\beta = -0.201$) and reduced accomplishment ($p < 0.001$, $R^2 = 0.10$, $\beta = -0.250$). Overall grit also significantly negatively predicted overall sports anxiety ($p = 0.008$, $R^2 = 0.16$, $\beta = -0.023$), somatic ($p = 0.031$, $R^2 = 0.11$, $\beta = -0.045$) and worry ($p = 0.008$, $R^2 = 0.16$, $\beta = -0.044$), but not concentration disruption ($p = 0.153$, $R^2 = 0.05$, $\beta = -0.049$). Using backwards elimination, overall athlete burnout was not significantly predicted by consistency or perseverance, while only perseverance predicted overall sports anxiety ($p = 0.005$, $R^2 = 0.18$, $\beta = -7.752$). **CONCLUSIONS:** In this sample, grit was a negative modulator of both athlete burnout and sports anxiety either overall or with certain subscales. Moreover, sport anxiety was a positive modulator of athlete burnout. **PRACTICAL APPLICATIONS:** Coaches and practitioners working with female collegiate athletes should utilize strategies to promote grit as it can have a positive impact on reducing athlete burnout and sports anxiety and ultimately impact athletic performance.

INTRODUCTION

- Female collegiate student-athletes face significant physical, academic, and psychological demands(1). Balancing athletics and academics often leads to elevated stress levels, which can increase the risk of athlete burnout and sport anxiety(1). Studies show that female athletes may be more likely than males to report mental health concerns, and they often experience higher levels of burnout(2).
- Burnout is influenced not only by physical fatigue but also by psychological and social stressors, such as perfectionism, fear of failure, and pressure from coaches and peers(3,4). Sport anxiety, a specific form of performance anxiety, can negatively impact emotional well-being and athletic performance, especially when perceived expectation or self-doubt are high(4).
- Grit, defined as perseverance and passion for long-term goals, has emerged as a protective psychological trait in athletes(5). Research suggests that athletes with higher grit are more resilient, experience lower burnout, and achieve greater success(6). However, while grit has been linked to burnout and general well-being, its relationship with sport-specific anxiety remains underexplored, especially among female collegiate athletes.

PURPOSE AND HYPOTHESIS

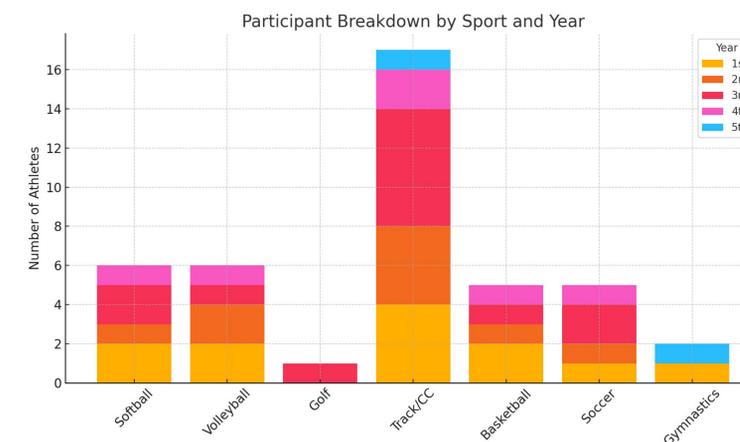
- The purpose of this study was to determine if grit modulates athlete burnout and sports anxiety in female collegiate athletes from the southwestern USA.
- We hypothesized that female collegiate student-athletes who score high on the grit test would score low on the athlete burnout and sports anxiety tests. The inverse relationship indicates that athletes with greater grit may experience less athlete burnout and sports anxiety.

METHODS

Study Design & Participants: A convenience sample of 42 female NCAA Division I athletes from a university in the southwestern United States participated in this cross-sectional study. Participants were recruited through social media and an internal athletics messaging app and completed an anonymous online survey. To be eligible, participants had to be current collegiate athletes and identify as female.

Procedures: After providing informed consent, participants completed three validated instruments: the Grit Scale, Athlete Burnout Questionnaire (ABQ), and Sport Anxiety Scale-2 (SAS-2). Data collection took place between June and December 2024. Survey responses were included only if fully completed.

Statistical Analysis: Linear regression analyses were used to examine predictive relationships between grit, athlete burnout, and sports anxiety. Backward elimination was used to identify the most meaningful predictors. Significance was set at $p < 0.05$. Analyses were conducted in JASP.



RESULTS

Overview: Participants ($N = 42$) reported moderate levels of burnout ($M = 36.1 \pm 10.02$), moderate sports anxiety ($M = 31.7 \pm 8.5$), and somewhat gritty profiles ($M = 3.4 \pm 0.68$). Grit was a significant negative predictor of several burnout and anxiety subscales.

Grit and Athlete Burnout key findings (Table 1):

- Grit significantly predicted lower levels of:
 - Physical/Emotional Exhaustion ($\beta = -0.201$, $p < 0.001$)
 - Reduced Accomplishment ($\beta = -0.250$, $p < 0.001$)
- No significant prediction for Sport Devaluation ($\beta = -0.168$, $p = 0.074$)

Table 1. Linear Regression with Grit as the Predictor of Components of Athlete Burnout.

Grit	R^2 Value	F Statistic	β Level	P Value
Physical and Emotional Exhaustion*	0.115	5.189	-0.201	<0.001
Reduced Accomplishment*	0.104	4.658	-0.250	<0.001
Sport Devaluation	0.081	3.201	-0.168	0.074

* $p < 0.05$.

Grit and Sports Anxiety key findings (Table 2):

- Grit significantly predicted lower:
 - Somatic Symptoms ($\beta = -0.045$, $p = 0.031$)
 - Worry ($\beta = -0.044$, $p = 0.008$)
- No significant prediction for Concentration Disruption ($\beta = -0.049$, $p = 0.153$)

Table 2. Linear Regression with Grit as the Predictor of Components of Sports Anxiety.

Grit	R^2 Value	F Statistic	β Level	P Value
Somatic*	0.111	4.986	-0.045	0.031
Worry*	0.162	7.753	-0.044	0.008
Concentration Disruption	0.050	2.124	-0.049	0.153

* $p < 0.05$.

CONCLUSIONS AND PRACTICAL APPLICATIONS

CONCLUSIONS:

- The current study provides the first evidence of the relationship between grit, athlete burnout, and sports anxiety in female collegiate athletes. In this sample, grit was a negative modulator of both athlete burnout and sports anxiety either overall or with certain subscales. Moreover, sport anxiety was a positive modulator of athlete burnout.

PRACTICAL APPLICATIONS:

- Coaches, athletic trainers, and other related staff should prioritize athlete mental health through regular check-ins, whether through questionnaires similar to the ones used in this study or other methods to monitor well-being.

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