

College Athletes and Mental Health: How Gender, Year, Sleep, Injury, and Social Support Affect Anxiety

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Introduction

Student athletes experience college in a very different way than their nonathlete counterparts. Many researchers have categorized athletes at an at-risk group of students for poor psychological well-being.¹ This study was conducted to investigate the effects of gender, year in school, sleep, injury, and social support on the anxiety of college athletes.

Anxiety

“the anticipated fear of a future danger or negative event, accompanied by feelings of dysphoria or physical symptoms of tension”² Student athletes are particularly susceptible to anxieties related to over exhaustion, abnormal appetite, performance pressures, and injury piled on top of existing trait differences.³

Gender

Anxiety affects males and females differently based on gender roles and psychosocial factors.⁴ By the age of 6 years old, females are twice as likely to experience symptoms of anxiety than males.⁵ Individuals who experience anxiety at a young age are more likely to have recurrent symptoms as well as they develop.⁶

Year in School

Freshman year of college brings athletes new academic demands, lack of social familiarity, and an increase in likelihood of injury.⁷ Yet, upperclassmen athletes must start making life-altering decisions based on graduate programs, career choices, and relational pursuits.⁸ They also often go through a transitional period and loss of identity after the completion of their competitive sport career.⁹

Sleep

Quality sleep is crucial to perform during and recover after high demands of physical activity.¹⁰ Research has found that energy expenditure increases sleep quality only if the expenditure occurs during the daytime. As college athletes perform later throughout the day, the natural tendency for expenditure to increase sleep flips and increases wakefulness at night.¹¹ As sleep quality decreases, mental fatigue serves as another impact on overall well-being.¹²

Injury

Lack of sleep not only mentally fatigues an athlete, but it also increases their risk for injury. Injuries feel like significant loss in an athlete’s life leading to anxiety and other harmful behaviors such as eating disorders and poor coping mechanisms.¹³

Social Support

Although injuries have detrimental effects on overall well-being, research suggests that social support helps mitigate these symptoms. As social support increases from time of injury occurrence to return to play, anxiety and other harmful behavior decreases.¹³

Abstract

This study aimed to identify the effects of gender, year, sleep, injury, and social support on anxiety in college athletes. Participants were college athletes at a small, private Christian college in a midwestern community. It was hypothesized that female college athletes would experience greater levels of anxiety than male college athletes, and that upperclassmen college athletes would experience greater levels of anxiety than underclassmen college athletes. It was also predicted that the more sleep an athlete gets, the lower levels of anxiety they will experience. The final two hypotheses stated that athletes who experience injury and/or worry about the effects of injury will have higher levels of anxiety, as well as athletes who receive less social support after injury will have higher levels of anxiety. Participants completed a short demographic questionnaire, and then were asked to complete three surveys. The results revealed gender, injury, and lack of social support as significant predictors of anxiety in college athletes. Year in school and sleep were not significant predictors of anxiety in college athletes when tested separately, but the final model which included all five variables could predict 45% of the variation in anxiety scores. Implication and limitations, as well as suggestions for further research are discussed.

Hypotheses

1. Female college athletes will experience greater levels of anxiety than male college athletes.
2. Upperclassmen college athletes will experience greater levels of anxiety than underclassmen college athletes.
3. The more sleep college athletes get at night, the lower levels of anxiety they will experience.
4. Athletes who experience injury and/or worry about the effects of injury will have higher levels of anxiety.
5. Athletes who receive less social support after injury will have higher levels of anxiety.

MATERIALS AND METHOD

Participants

- 100 participants
- Gender: 63 Females, 37 Males
- Year in School: 27 Freshman, 20 Sophomores, 20 Juniors, 30 Seniors, 3 Fifth-Year Seniors

All participants were students at a small, private Christian college in a midwestern community.

Procedure

Athletes were invited to participate through recruitment from their respective coaches and through psychology classes. Athletes enrolled in psychology courses received extra credit for their participation. Data were collected online at the beginning of November using online survey software Qualtrics.

Generalized Anxiety Disorder-7: 7-item Likert-type scale that assesses how many days of the recent 2 weeks an individual has been affected by anxiety-related symptoms

“Over the last two weeks how often have you felt nervous, anxious, or irritable?”¹⁴

Athlete Sleep Screening Questionnaire: 15 item scale that assesses the quality and quantity of sleep in athletes

“During the recent past, how many hours of actual sleep did you get at night”¹⁵

Sport Injury Anxiety Scale: 21-item Likert-type scale that assesses sport anxiety related to injury

“When I am injured, some people turn away from me”⁶

References

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6. Bruce et al., 2008
7. Wilson et al., 2002
8. Lee et al., 2021
9. Baillie et al., 1993
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14. Spitzer et al., 2006
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Results

Hypothesis 1: Supported

- Males: ($M = 1.63, SD = .477$)
- Females: ($M = 2.08, SD = .683$)
- $t(94) = -3.492, p < .001$, Cohen’s $d = -.74$

Hypothesis 2: Not supported

- $F(3,92) = 1.624, p = .190$
- Freshman = 2.11, Sophomores = 1.89, Juniors = 2.02, Seniors = 1.74

Hypothesis 3: Not supported

- $r(96) = -.13, p = .21$

Hypothesis 4: Supported

- $r(69) = .54, p < .001$

Hypothesis 5: Supported

- $r(69) = .50, p < .001$

Overall Model: Supported

- $F(5,68) = 12.18, p < .001$, adjusted $R^2 = .45$
- Gender, class year, sleep, injury, and social support after injury predict 45% of variation in anxiety scores

Discussion

Hypothesis 1: The first hypothesis was supported. Prior research has shown that hormonal imbalance in females can affect overall well-being. As progesterone and estrogen levels drop during menstruation, the natural barrier they have to stressful events disappears.¹⁷ These results imply that females are more naturally and environmentally inclined to experience greater levels of anxiety than males.

Hypothesis 2: The second hypothesis was not supported. Previous research is discrepant about the amount of anxiety that students in each year of college experience. This study found minimal difference in anxiety between freshman, sophomores, juniors, and seniors implying that neither this hypothesis, or the opposite that underclassmen athletes would experience more anxiety than upperclassmen, would have been supported.

Hypothesis 3: The third hypothesis was also not supported. In this study, athletes were not asked what time of day they expended the most energy. It is possible that these athletes were performing early enough in the day, that their body followed the natural tendency of energy expenditure increasing tiredness and quality of sleep. Another possibility of inconsistent findings with previous research could be the lack of power in the sleep measure with only 100 participants.

Hypothesis 4: The fourth hypothesis was supported. Almost 90% of athletes will experience some sort of injury throughout their athletic career. When injury occurs, athletes experience anxieties stemming from lack of physical ability, worry about letting others down, and loss of identity in who they are without their sport. Another impact on well-being comes from the fear of reoccurrence of injury when they return to play.¹³

Hypothesis 5: The fifth hypothesis was also supported. Social support helps buffer the effects of mental and physical stress of injured athletes. Social support can boost positive feelings and increase rehabilitation motivation in injured athletes. Gaining support from 1-week-post-injury to return to play is essential for healthy well-being.¹³