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Assessment of Psychological Factors Affecting Training and Performance among Student-Athletes

Chidinma Obi

obichidinman@gmail.com

University of Benin https://orcid.org/0009-0009-8242-6155

Research Article

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Abstract

Psychological factors play an important role in the training and performance of student-athletes. This study assessed selected psychological factors, including stress, anxiety, and motivation, and their relationship with training and sports performance among student-athletes. A cross-sectional descriptive design was used among 30 student-athletes aged 18–25 years. Data were collected using structured questionnaires assessing perceived stress, sports anxiety, motivation, training participation, and self-rated performance. Descriptive statistics and Pearson correlation were used for data analysis. The findings showed moderate levels of stress and anxiety among the athletes, while motivation was generally high. Higher stress and anxiety were associated with poorer training participation and performance, whereas higher motivation was positively associated with training participation and performance. The findings suggest that addressing psychological factors may improve training consistency and sports performance among student-athletes.

1. Introduction

Sports performance is influenced not only by physical fitness but also by psychological factors. Student-athletes often experience academic demands, competition pressure, training workload, and expectations from coaches and peers. These factors may affect their psychological well-being and athletic performance.

Stress and anxiety may negatively affect concentration, confidence, motivation, and the ability to perform effectively during training and competition. In contrast, motivation can encourage athletes to maintain regular training, overcome challenges, and pursue performance goals.

Understanding these psychological factors is important for developing appropriate support programmes for student-athletes. This study therefore assessed stress, anxiety, and motivation and examined their relationship with training and performance among student-athletes.

2. Materials and Methods

2.1 Study Design and Participants

A cross-sectional descriptive study design was adopted. Thirty student-athletes aged 18–25 years participated in the study.

2.2 Data Collection

Data were collected using a structured questionnaire divided into four sections:

- Demographic information
- Perceived stress
- Sports anxiety

- Motivation towards training and competition

Training participation and sports performance were assessed using self-reported training attendance and performance ratings.

2.3 Psychological Measures

Psychological factors were assessed using Likert-scale questions. Higher scores represented greater levels of the psychological factor being measured.

2.4 Data Analysis

Data were presented as mean ± standard deviation. Pearson correlation was used to determine relationships between psychological factors, training participation, and performance. Statistical significance was set at $p < 0.05$.

2.5 Ethical Consideration

Ethical approval was obtained from the appropriate institutional ethics committee. Informed consent was obtained from all participants before data collection.

3. Results

Thirty student-athletes participated in the study. The participants had a mean age of **21.4 ± 2.1 years**.

3.1 Levels of Psychological Factors

Table 1. Psychological factors among student-athletes (n = 30)

Psychological factor	Mean ± SD	Interpretation
Stress	22.6 ± 5.1	Moderate
Anxiety	20.8 ± 4.7	Moderate
Motivation	31.7 ± 4.2	High

The athletes demonstrated moderate levels of stress and anxiety, while motivation towards training and competition was generally high.

3.2 Relationship between Psychological Factors and Training

Table 2. Relationship between psychological factors and training participation

Variable	Correlation (r)	p-value
Stress vs. training participation	−0.46	0.010
Anxiety vs. training participation	−0.39	0.033
Motivation vs. training participation	+0.58	0.001

Stress and anxiety showed significant negative relationships with training participation, while motivation showed a significant positive relationship.

3.3 Relationship between Psychological Factors and Performance

Table 3. Relationship between psychological factors and sports performance

Variable	Correlation (r)	p-value
Stress vs. performance	−0.42	0.021
Anxiety vs. performance	−0.37	0.043
Motivation vs. performance	+0.61	<0.001

Higher stress and anxiety were associated with lower performance scores, whereas higher motivation was associated with better performance.

4. Discussion

The findings indicate that psychological factors are important determinants of training participation and sports performance among student-athletes. The moderate levels of stress and anxiety observed may be related to the combined demands of academic activities, training, and competition.

The negative relationships between stress, anxiety, and performance suggest that excessive psychological pressure may interfere with concentration, confidence, and effective participation in training. Conversely, the positive relationship between motivation and performance indicates that motivated athletes may be more consistent in training and more willing to overcome challenges.

These findings highlight the importance of psychological support alongside physical training programmes for university athletes.

5. Conclusions

Stress, anxiety, and motivation are important psychological factors affecting training and performance among student-athletes. Higher stress and anxiety were associated with reduced training participation and poorer performance, while higher motivation was associated with better training participation and performance.

Sports programmes should therefore incorporate psychological skills training, stress management, and motivational support to improve the overall performance and well-being of student-athletes.

Abbreviations

SD — Standard Deviation
r — Pearson Correlation Coefficient

Declarations

Supplementary Materials: Not applicable.

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