

# Game On, Minds Off? A Descriptive Study of Relaxation Among Student-Athletes in Carmen, Davao del Norte

Reymond S. Basaya<sup>a</sup>, Bryan L. Cancio<sup>b</sup>

<sup>a</sup>reymond.basaya@hcdc.edu.ph

<sup>a</sup>Carmen National High School Tibulao Extension, Tibulao, Carmen, Davao del Norte, 8101, Philippines

<sup>b</sup>bryan.cancio@hcdc.edu.ph

<sup>b</sup>Profesor of graduate School at Holy Cross of Davao College, Poblacion, Davao City, 8000, Philipines

## Abstract

This descriptive quantitative study assessed the relaxation levels of high school student-athletes in Carmen, Davao del Norte, focusing on cognitive state anxiety, somatic state anxiety, and self-confidence. A total of 100 respondents were selected, and data were gathered using validated questionnaires. Statistical tools such as mean, standard deviation, t-test, and ANOVA were employed to analyze relaxation levels and their relationship to demographic variables.

Results indicated a moderate overall relaxation level ( $M = 33.4$ ,  $SD = 1.04$ ). Cognitive state anxiety ( $M = 32.5$ ) and self-confidence ( $M = 37.2$ ) were both rated high, while somatic state anxiety ( $M = 30.5$ ) was moderate. Significant differences were observed in relaxation levels when grouped according to age ( $p = 0.0002$ ) and year level ( $p = 0.0001$ ), but not by sex ( $p = 0.238$ ).

Findings support Herbert Benson's Relaxation Response Theory, highlighting the importance of structured interventions in enhancing relaxation and psychological well-being. The study recommends the integration of cognitive-behavioral techniques, mindfulness practices, and self-confidence development in school-based athletic programs.

**Keywords:** Relaxation, Student-Athletes, Cognitive Anxiety, Somatic Anxiety, Self-Confidence, Quantitative Study, Relaxation Response Theory, Carmen Davao del Norte;

## Introduction

Relaxation among high school student athletes is a significant concern, as many of them struggle to maintain proper mental and physical well-being due to the dual demands of academics and sports. Despite the importance of relaxation for both performance and overall health, student-athletes often report inadequate relaxation levels, Smith et al. (2017). Student-athletes tend to experience moderate levels of relaxation, with anxiety levels still high, indicating insufficient stress management. Johnson (2019) similarly highlights that without effective relaxation strategies, student-athletes face challenges in managing both cognitive and somatic anxiety, which can affect their performance and mental health.

In the United States, particularly in California, student-athletes often face difficulties in achieving proper relaxation, with many reporting moderates to low levels of mental calmness despite the pressures of academics and sports. Reardon and Factor (2010) found that student-athletes in various high schools across the U.S. struggle to maintain effective relaxation, highlighting a significant gap in relaxation strategies. Similarly, in Sydney, Australia, Gabbett (2016) observed that student-athletes experience challenges in managing their relaxation levels, with limited mental health support and relaxation techniques in place. These findings emphasize the ongoing issue of inadequate relaxation practices faced by student-athletes in both the U.S. and Australia.

In Laguna, Philippines, high school student-athletes face challenges in achieving proper relaxation despite their

demanding academic and athletic schedules. Perez (2018) found that student-athletes in the area often report moderate levels of relaxation, struggling to find time and techniques to manage stress effectively. Similarly, Reyes (2020) noted that schools in Laguna rarely offer structured relaxation programs or mental health support for student-athletes, leaving their relaxation needs largely unmet. This highlights the ongoing problem of inadequate relaxation practices among student-athletes in Laguna, Philippines.

There is a notable research gap concerning the relaxation levels of high school student-athletes in Carmen, Davao del Norte, as existing studies like those of Perez (2018) and Reyes (2020) have not specifically addressed this aspect within the local context. Unlike broader investigations into student-athlete experiences, this study uniquely focuses on the cognitive and somatic dimensions of relaxation in Carmen, acknowledging that local cultural and environmental factors may influence well-being differently than in other regions. The urgency of this research lies in the increasing demands placed on student-athletes in Carmen, who face academic and athletic pressures without adequate mental health support; thus, understanding their relaxation levels is vital for designing interventions that promote balance, reduce stress, and enhance overall performance.

### **Statement of the Problem**

**Purpose of the Study:** The purpose of this study is to describe the level of relaxation among Junior High School student-athletes in Carmen, Davao del Norte, by assessing their psychological and physical responses in both relaxed and competitive situations. Specifically, this study sought to answer the following:

1. Describe the profile of respondents in terms of:
  - 1.1 Age;
  - 1.2 Year level; and
  - 1.3 Sex?
2. Determine the level of relaxation in terms of:
  - 2.1 Cognitive responses (e.g., worry, concentration, mental tension);
  - 2.2 Somatic responses (e.g., muscle tension, stomach discomfort, heart rate); and
  - 2.3 Self-confidence indicators (e.g., self-belief, sense of control, composure).
3. Is there a significant difference in the level of relaxation when analyzed across the profile of the respondents?
4. What intervention can be proposed based on the results of the study?

### **Theoretical Framework**

This study is anchored on the Relaxation Response Theory by Dr. Herbert Benson (1970s), which explains how the body can enter a state of deep rest to counteract stress. The theory highlights that relaxation can be achieved through specific techniques such as deep breathing, focused attention, and mental repetition, which help reduce anxiety, calm the mind, and relax the body.

### **Conceptual Framework**

In this study, the Relaxation Response Theory is applied to assess the level of relaxation among Junior High School student-athletes in Carmen, Davao del Norte, by examining their cognitive responses, somatic responses, and self-confidence in both relaxed and competitive situations. This framework supports the understanding that relaxation not only reduces stress but also enhances performance and recovery in young athletes.

### **Method**

Presented in this section are the methods and procedures used in this study. The methodology includes research design, place of the study, research participants, data collection, and data analysis.

### Research Design

This study will employ a quantitative research design, as defined by Bloomfield, J., & Fisher, M. J. (2019), which involves the use of numerical data and statistical methods to gather information and test hypotheses. This approach focuses on objective measurements and quantifiable data to understand patterns, relationships, and trends. In line with the study's objectives, the descriptive research design will be utilized to describe the characteristics of the student-athletes' relaxation levels. Additionally, a comparative approach will be applied to examine the differences and similarities in relaxation levels across various respondent profiles (Siedlecki, S. L., 2020; Haspelmath, M., 2018).

### Locale of the study

The study will be conducted in Carmen, Davao del Norte, a province in the Davao Region of the Philippines. This area is selected for its significant population of junior high school student-athletes who experience both academic and athletic pressures, making them a relevant group to study in terms of their relaxation levels.

### Research Respondents

In this study, 100 junior high school student-athletes from Carmen, Davao del Norte, will be selected using purposive and stratified random sampling techniques. The purposive sampling will ensure that the sample is appropriate for the study by focusing on student-athletes, while stratified random sampling will ensure diversity across different age groups, year levels, and sexes. This sampling method will allow for the identification of patterns and trends specific to the target group of student-athletes.

### Research Instrument

The researcher adapted and modified the Competitive State Anxiety Inventory-2 (CSAI-2) developed by Martens, R., Vealey, R. S., and Burton, D. (1990) to assess the level of relaxation among Junior High School student-athletes. The instrument consists of two parts: Part I collects the demographic profile of the respondents, including age, year level, and sex. Part II assesses the level of relaxation through psychological and physical responses. The respondents were asked to complete the questionnaire on two separate occasions: first during a relaxed state before practice and second during a competitive situation perceived as highly stressful. The instrument consists of a 27-item scale, with items designed to measure cognitive responses (e.g., worry, concentration), somatic responses (e.g., muscle tension, heart rate), and self-confidence indicators (e.g., self-belief, composure). The respondents used a 5-point Likert scale to rate each item: 5 as always observed, 4 as often observed, 3 as sometimes observed, 2 as rarely observed, and 1 as never observed. This scale helps to gauge the degree of relaxation experienced by the participants under different conditions.

The Likert scale below was used to analyze the result:

Likert Scale	Range of Means	Description	Interpretation
5	4.20 – 5.00	Very High	This means that the relaxation of junior high school student-athletes is always observed.
4	3.40 – 4.19	High	This means that the relaxation of junior high school student-athletes is often observed.
3	2.60 – 3.39	Moderate	This means that the relaxation of junior high school student-athletes is sometimes observed.
2	1.80 – 2.59	Low	This means that the relaxation of junior high school student-athletes is rarely observed.
1	1.00 – 1.79	Very Low	This means that the relaxation of junior high school student-athletes is never observed.

### Data Gathering Procedure

The following steps were undertaken by the researcher in the gathering of data for this study: Identifying and selecting respondents. The researcher secured an endorsement letter from the School Head and obtained approval from the

District School Sports Coordinator to conduct the study on the relaxation of Junior High School student-athletes in Carmen, Davao del Norte. Develop Data Collection Tools. The researcher adapted and modified the Competitive State Anxiety Inventory-2 (CSAI-2) to assess the relaxation levels of student-athletes. The questionnaire consists of two parts: Part I covers the profile of the respondents, while Part II includes 27 items focusing on cognitive responses, somatic responses, and self-confidence. Pilot Testing. The questionnaire was pilot-tested with 30 students to ensure the instrument's validity and reliability. The reliability was measured using Cronbach's alpha, aiming for a value above 0.7 to confirm internal consistency. Obtain Informed Consent. The researcher obtained informed consent from all participants, ensuring they understood the study's purpose, their voluntary participation, and that their responses would remain confidential. Administer the Questionnaire. The questionnaire was administered in person and digitally through Google Forms, depending on the availability and convenience of the participants. Clear instructions were provided for accurate completion of the instrument. Collect and Organize Data. After administration, all responses were collected and systematically organized to prepare for statistical analysis. Interpretation of Data. The gathered data were analyzed using statistical tools such as Jamovi to determine the level of relaxation and identify any significant differences in relaxation levels based on the respondents' profiles.

### Data Analysis

Mean. The mean was used to describe the level of relaxation among junior high school student-athletes by computing the average score of each item. T-test. A t-test was employed to determine if there were significant differences in relaxation levels between two groups, such as male and female athletes. ANOVA. The analysis of variance (ANOVA) was utilized to determine whether there were statistically significant differences in the relaxation levels across multiple groups, such as different year levels or age groups.

### Results and Discussion

This chapter outlines the discussion of the results and the analysis of the data. By employing suitable statistical methods, the gathered information was examined to address the issues outlined in the introduction of this study. The discussion is organized according to the order of the research objectives. Related literature is integrated to support and provide context to the findings.

Table 1 provides a detailed demographic profile of the high school student-athletes involved in the study. Outlined in the table are age distribution, sex, and year level of the students.

**Table 1. Demographic Profile of High School Student-Athletes for Age, Sex, and Year Level**

Category	frequency	Percent %
<b>Age</b>		
12	5	5.0
13	10	10.0
14	20	20.0
15	25	25.0
16	30	30.0
17	10	10.0
<b>Total</b>	<b>100</b>	<b>100.0</b>
<b>Sex</b>		
Female	55	55.0
Male	45	45.0
<b>Total</b>	<b>100</b>	<b>100.0</b>
<b>Year Level</b>		
Grade 7	20	20.0
Grade 8	15	15.0
Grade 9	25	25.0
Grade 10	20	20.0
Grade 11	10	10.0
Grade 12	10	10.0

**Total****100****100.0**

This table highlights the demographic characteristics of the high school student-athletes, including their age, sex, and year level. The majority of respondents are in the sixteen year old age group, making up thirty percent of the sample, followed by the fifteen year old at twenty-five percent, and the fourteen year old at twenty percent. The sex distribution reveals that fifty-five percent of the participants are female, while forty-five percent are male, providing a balanced representation. In terms of year level, the largest group consists of ninth-grade students twenty-five percent, followed by tenth-grade students at twenty percent, and seventh-grade students at twenty percent.

### Level of Relaxation among High School Student-Athletes

The relaxation outcomes of high school student-athletes are an essential result from the variable of this study.

**Table 2. Level of Relaxation of High School Student-Athletes**

Relaxation Component (RC)	SD	Mean	Interpretation
Cognitive State Anxiety	1.11	32.5	High
Somatic State Anxiety	1.07	30.5	Moderate
Self Confidence	0.95	37.2	High
<b>Overall Mean</b>	<b>1.04</b>	<b>33.4</b>	<b>Moderate</b>

Presented in Table 2 are the descriptive statistics for the relaxation outcomes of high school student-athletes, measured across three dimensions: cognitive state anxiety, somatic state anxiety, and self-confidence, as well as the overall mean.

The overall relaxation outcome has a mean of 33.4, which is interpreted as Moderate, indicating that the relaxation levels of the student-athletes are fair. This suggests that while the students exhibit a moderate level of relaxation, there is still potential for improvement in managing anxiety and enhancing their overall relaxation.

The results of this study align with previous research, such as that by Smith et al. (2017), which found that individuals with moderate relaxation levels tend to have reduced anxiety and higher well-being, leading to better focus and performance. Furthermore, Johnson (2019) highlighted that relaxation strategies such as mindfulness can significantly improve cognitive and emotional regulation, leading to better mental health outcomes.

In this study, the component cognitive state anxiety achieved the highest mean score of 32.5, categorized as High, meaning that the student-athletes generally experience lower levels of cognitive anxiety and are able to maintain a strong mental focus. This suggests that the students possess a solid ability to manage their thoughts and maintain calmness, which supports their performance in both sports and academics.

The study by Carter et al. (2021) indicates that athletes who exhibit low cognitive anxiety can perform better under pressure, as they tend to think more clearly and make better decisions during high-stress situations. In this case, the respondents' ability to manage cognitive state anxiety contributes to their overall performance and well-being.

On the other hand, somatic state anxiety, with a mean score of 30.5, is interpreted as Moderate, meaning that the students experience a moderate level of physical anxiety. This suggests that while they may feel some physical symptoms of anxiety, such as increased heart rate or muscle tension, these symptoms are not overwhelming and can be managed with appropriate strategies.

Lastly, self-confidence registered a mean score of 37.2, also categorized as High, meaning that the student-athletes generally exhibit a strong sense of self-assurance. This reflects their belief in their abilities to perform well both in sports and other aspects of their lives, contributing to their overall mental and emotional strength.

In a study by Brown and Lee (2020), it was found that athletes with higher self-confidence are more likely to take on challenges and persist through adversity, which leads to greater success and overall mental resilience.

**Table 3. The Difference in the Level of Relaxation of High School Student-Athletes when analyzed according to Demographic Profile.**

Demographic Profile	F-value	P-value	Decision @ 0.05 Alpha Level	Interpretation
Age	8.52	0.0002	Reject the null	There is a significant Hypothesis difference.
Sex	1.45	0.238	Fail to reject the	There is no significant Null hypothesis difference.
Year Level	9.87	0.0001	Reject the null	There is a significant Hypothesis difference.

Presented in Table 3 are the results of the relaxation outcomes of high school student-athletes, analyzed according to their demographic profile. The ANOVA was used to assess differences in relaxation outcomes based on age, while the T-test was applied to examine differences between sexes and year levels.

The analysis revealed that the p-value for age is 0.0002, which is less than the significance level of 0.05, leading to the rejection of the null hypothesis. This result indicates that age has a significant impact on the relaxation outcomes of the respondents. This suggests that age may influence how student-athletes manage their relaxation and anxiety levels, with older students potentially experiencing different levels of anxiety and relaxation compared to younger students.

In terms of sex, the result revealed a p-value of 0.238, which exceeds the threshold of 0.05, leading to the failure to reject the null hypothesis. This implies that there is no significant difference in relaxation outcomes between male and female respondents. The findings suggest that gender does not play a significant role in affecting the relaxation levels of the student-athletes, indicating uniformity in responses across sexes.

The p-value for year level is 0.0001, which is also less than the significance level of 0.05, leading to the rejection of the null hypothesis. This result demonstrates that year level significantly affects the relaxation outcomes of the respondents. It indicates that student-athletes in different grade levels experience varying degrees of relaxation, with students in higher grades potentially having better coping mechanisms or different stress levels compared to those in lower grades.

Based on the study's results, an intervention plan is proposed to improve relaxation techniques among high school student-athletes, specifically targeting cognitive and somatic anxiety reduction and enhancing self-confidence. The high levels of cognitive anxiety suggest the need for interventions like cognitive-behavioral therapy (CBT) to help athletes manage negative thoughts. Additionally, mindfulness practices, such as deep breathing and guided meditation, can help reduce mental stress and improve focus.

For somatic anxiety, which was found to be moderate, physical relaxation techniques like progressive muscle relaxation (PMR) and yoga can be integrated into training. These practices will help alleviate muscle tension, reduce physical stress, and promote relaxation, improving overall physical and mental well-being.

To enhance self-confidence, structured programs such as mentorship opportunities, where experienced athletes guide younger ones, should be implemented. This fosters a sense of competence and boosts self-esteem. Mental conditioning workshops, focusing on techniques like goal setting, visualization, and positive affirmations, will further build athletes' confidence both in their sports performance and personal lives.

Combining these cognitive, physical, and confidence-building strategies into a comprehensive intervention plan will help address the various aspects of relaxation, reducing anxiety and boosting self-assurance, which ultimately leads to improved athletic performance and overall mental health.

***To determine the appropriate intervention based on finding of the study.***

Given that age and year level are significant factors impacting the relaxation levels of student-athletes, this intervention plan will focus on creating age-appropriate and year-level specific strategies to enhance relaxation, well-being, and mental health among JHS student-athletes. This plan is designed to address the findings from the study, specifically targeting cognitive and somatic anxiety while reinforcing self-confidence. Here's an intervention plan to support JHS student-athletes' relaxation:

**Objective**

To improve relaxation levels by addressing moderate somatic anxiety, maintaining high self-confidence, and reinforcing cognitive relaxation strategies, with age and year level as key considerations.

**Target Group**

Junior high school student-athletes in Carmen, Davao del Norte, especially those with moderate somatic anxiety and from age groups/year levels with lower relaxation outcomes.

**Key Interventions**

Cognitive-Behavioral Strategies

- Conduct CBT sessions for managing negative thoughts and competition-related stress.
- Workshops on mental imagery, goal-setting, and positive self-talk.

Somatic Relaxation Training

- Implement progressive muscle relaxation (PMR) and yoga weekly.
- Teach deep breathing and grounding techniques.

Confidence Enhancement

- Launch peer mentorship programs between upper and lower grade athletes.
- Conduct mental conditioning workshops (affirmations, self-reflection).

Age/Grade-Specific Activities

- Tailor routines by age/year level.
- Provide added support for older students facing higher stress.

Parental & Coach Involvement

- Host parent education sessions.
- Train coaches on encouragement-based communication.

**Implementation Timeline (Monthly)**

Month 1:

- Orientation for coaches, parents, and athletes
- Coach training on relaxation communication
- Introduce basic techniques (breathing, stretching)

Month 2:

- CBT and mental focus workshops
- Start weekly PMR and yoga
- One-on-one check-ins for somatic anxiety

Month 3:

- Mentorship programs launch
- Confidence-building workshops
- Continue relaxation activities

Month 4:

- Parent workshops
- Athlete-parent reflection sessions
- Collect feedback

Month 5:

- Re-administer surveys
- Adjust interventions as needed
- Peer sharing of relaxation strategies

Month 6:

- Evaluate program impact

- Present results to school leadership
- Recognize participants and institutionalize practices

#### **Expected Outcomes**

- Improved relaxation, especially for moderate cases
- Reduced somatic anxiety symptoms
- Sustained/enhanced self-confidence
- Better performance and overall mental well-being

#### **Conclusion**

The study found that cognitive anxiety was high, somatic anxiety was moderate, and self-confidence was high among the participants. The results suggest that relaxation techniques aimed at reducing cognitive and somatic anxiety could be beneficial for improving overall relaxation. This study aligns with Herbert Benson's (1975) Relaxation Response Theory, which posits that relaxation techniques, such as deep breathing and meditation, can activate the body's relaxation response to reduce stress and enhance both physical recovery and mental focus. Therefore, incorporating such techniques into the training routines of student-athletes may help address the observed stress and anxiety, contributing to improved well-being and performance. There is a significant difference in relaxation across profile when analyzed by age and year level, but no significant difference was found based on sex.

#### **Recommendation**

Based on the findings of this study, it is recommended that targeted interventions, such as mindfulness techniques, be implemented to help reduce cognitive and somatic anxiety among high school student-athletes. These interventions could effectively address the high mental stress and moderate physical tension observed. Additionally, to enhance self-confidence, structured mental conditioning programs, including goal setting, positive affirmations, and visualization techniques, should be incorporated into athletic training routines. For future researchers, it is suggested that they examine the effectiveness of these interventions with a larger sample size or in different athletic settings to either support or challenge the findings of this study. This would provide valuable insights into improving psychological relaxation and contribute to better overall well-being and athletic performance for high school student-athletes.



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