

Efficacy On Relaxation Techniques Among Student- Athletes in Davao City

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Abstract

Relaxation techniques play a crucial role in enhancing athletes' performance and well-being by aiding in recovery, stress management, and anxiety reduction. These techniques, such as Progressive Muscle Relaxation (PMR), imagery, and breathing techniques, have been shown to reduce anxiety levels, improve focus, enhance self-confidence, concentration, and overall sports performance. This study aimed to explore the level of efficacy of relaxation techniques among student-athletes in Davao City. Moreover, this study used a quantitative method with a descriptive comparative approach to measure the level of efficacy on relaxation techniques among student-athletes in Davao City. The respondents of this study were 30 student-athletes from various sports disciplines, representing both public and private secondary schools within District II of Davao City. The questionnaire has passed through reliability test resulted to 0.90 Cronbach's alpha. A random sampling technique was utilized in the study where respondents were randomly selected. Using Mean, the findings revealed that student-athletes exhibit a high level of efficacy in relaxation techniques, with breathing being the most significant component, followed by imagery and progressive muscle relaxation. In addition, respondents' sex, age, year level and type of sport did not differ significantly, according to the results of the ANOVA test. Therefore, it is recommended to continuously promote and integrate these practices into their training programs given that there was a high level of efficacy demonstrated by student-athletes in incorporating relaxation techniques into their routines.

Keywords: Relaxation techniques, student-athletes, imagery, breathing, PMR

Introduction

Relaxation has been defined as a psychological strategy used by sports performers to help manage or reduce stress-related emotions (for example, anxiety and anger) and physical symptoms (for example, physical tension and increased heart rate) during high pressurized situations (Oladejo,2021). Various relaxation methods, such as imagery, meditation, progressive muscle relaxation, and breathing exercises, can significantly benefit athletes by enhancing mood states, reducing anxiety, improving performance, and aiding in recovery (Parnabas, 2014). However, a study of (Bastos,2014) highlighted that there is a need for greater awareness and education among athletes regarding the benefits and proper utilization of relaxation techniques, as highlighted in studies on student-athletes.

In Czech Republic, a study of (Kudlackova 2015) found that professional and college athletes use relaxation techniques more than recreational athletes, suggesting a potential performance benefit. It emphasized that the use of various relaxation techniques has a positive impact in the sports performance of

the student athletes. However, student-athletes often face challenges balancing academic responsibilities with sports commitments, leading to increased stress levels that can affect their physical and mental health as well as their athletic performance (Strauss,2021).

In the Philippines, the emphasis on physical training often overshadows the importance of psychological preparation. Coaches and athletes tend to prioritize physical conditioning and skill development, sometimes at the expense of mental health strategies that could enhance overall performance (Dy, 2018). This disparity is partly due to a lack of awareness and education about the benefits of relaxation techniques, as well as cultural attitudes that may undervalue psychological interventions in sports (Rivera, 2020).

In Davao Region, accessibility to proper training and resources for implementing relaxation techniques is another significant issue. Many athletes, especially those at the grassroots and amateur levels, do not have adequate access to sports psychologists or structured mental health programs (Abellanos,2023). This lack of support means that many athletes are ill-equipped to handle the psychological demands of competition, leading to increased stress and suboptimal performance (Indie,2022).

Despite the extensive research on the use of relaxation techniques among athletes, there is a lack of studies that specifically focus on the efficacy of these techniques in enhancing the performance of student-athletes in competitive situations. Studies conducted by (Kudlackova,2013) and (Parnabas,2014) which focused on the use of these skills by differentially skilled athletes identifying a positive correlation between various relaxation techniques and sports performance. However, these studies do not directly address the effectiveness of these techniques in competitive situations. This research aims to specifically investigate the level of efficacy on relaxation techniques among student-athlete in Davao City, providing a localized perspective on the issue.

Although student athletes in Davao City are increasingly embracing relaxation techniques in their sports, there is a significant gap in understanding the efficacy of relaxation techniques of student-athletes on the different techniques, particularly techniques of breathing, imagery and progressive muscle relaxation. Moreover, this research intends to greatly improve relaxation techniques of student-athletes in Davao City by exploring how these relaxation techniques are effective of the athletes, which is in line with the larger objective of improving sports in the Philippines.

Statement of the Problem

The purpose of this study is to describe the level of efficacy on relaxation techniques among student-athletes in Davao City. Specifically, this study sought to answer the following:

1. What is the profile of respondents in terms of:
 - 1.1. age;
 - 1.2. sex;
 - 1.3. year level; and
 - 1.4. type of sport?
2. What is the level of efficacy on relaxation techniques among student-athletes in Davao City in terms of:
 - 2.1. Techniques of breathing;
 - 2.2. Imagery; and
 - 2.3. Progressive Muscle Relaxation?

3. Is there a significant difference on the level of efficacy on relaxation techniques among student-athletes in Davao City when analyzed across the profile of the respondents?

METHODOLOGY

Research Design

The study used quantitative design utilizing descriptive-comparative approach to describe the level of efficacy on relaxation techniques among student-athletes in Davao City. As claimed by Watson (2015) one of the famous authors in quantitative research, quantitative research is the process of collecting and analyzing numerical data that can be used to find patterns and averages, make predictions, test causal relationships, and generalize results to wider population. In the context of the study, quantitative design utilizing descriptive-comparative approach is appropriate in exploring the efficacy of relaxation techniques among student-athletes in terms the techniques of breathing, imagery, and progressive muscle relaxation.

Research Instrument

A self-made questionnaire was utilized to collect the data and has passed through reliability test which resulted to .90 Cronbach's Alpha. It is a 15-item questionnaire where each question will be measured on a 5-point scale where 1 is regarded as strongly disagree, 2 as disagree, 3 as moderately agree, 4 as agree and 5 as strongly agree. The demographic profile of the respondents was covered in the first section of the survey, while the level of efficacy on relaxation techniques among student-athletes was explored in the second part which are divided into 3 indicators: the first indicator focused on techniques of breathing; the second focused on imagery; the last indicator focused on progressive muscle relaxation.

Research Respondents

The respondents of the study were 30 junior high school MAPEH teachers. In this context, a complete enumeration technique was utilized in the study where all MAPEH teachers in the school where the study was conducted were considered subjects of the study. This technique was used in the present study because the total population of teachers teaching MAPEH subject was only 30.

Research Locale

The respondents of the study were 30 student-athletes from various sports disciplines, representing both public and private secondary schools within District II of Davao City. In this context, a random sampling technique was utilized in the study where respondents were randomly selected from a list provided by the schools' sports coordinators. This ensures every respondent has an equal chance of being included in the study.

Research Ethics

Once the survey was fully completed by all the respondents, the data will be later analyzed along with the computation. Above all, the researchers must follow research protocols in conducting the survey by including ethical considerations that are necessary for this study.

RESULTS AND DISCUSSION

This chapter presents the discussions of the results and analysis of data. To investigate the problems raised in Chapter 1 of this research study, the acquired data were analyzed using suitable statistical tools. Discussions were presented categorically based on the sequence of the statement of the problem. Relevant

related literature was used to discuss and support the findings.

Profile of the Respondents

This section presents the profile of the respondents in terms of sex, age, year level and type of sport. Table 1 presents the respondent's profile, frequency, and percentage. In terms of sex, the result shows that majority of the respondents were male, accounting for 66.7% of the total sample, while females made up 33.3%. It means that a higher participation rate of male was surveyed compared to female. The next profile variable is age. The age distribution of the respondents varied, with the majority falling in the 15-17 years old at 56.7%. The 12-14 years old group accounted for 33.3%, and the 18-20 years old group was the smallest at 10%. The result indicates a concentration of respondents in the mid-teenage years. The data on year level in table 1.3 revealed that the respondents were distributed across different year levels, with Grade 11 and Grade 12 year levels combined representing 30%. Furthermore, grade 9 and grade 10 levels each accounted for 23.3%, followed by Grade 8 at 10% and Grade 7 at 6.7%. This result indicates a diverse representation of students from various grade levels. The last profile variable is the type of sport of the respondents. The highest percentage who belongs to team sport got 60.0 percent, while the smallest percentage with 16.7 percent is dual sport. Furthermore, the respondents tallied a total of 30.

Table 1. Demographic Profile of the Respondents

Profile	Frequency	Percentage
1.1. Sex		
Male	20	66.7 %
Female	10	33.3 %
Total	30	100 %
1.2. Age		
12-14 years old	10	33.3 %
15-17 years old	17	56.7 %
18-20 years old	3	10.0 %
Total	30	100 %
1.3. Year Level		
Grade 7	2	6.7 %
Grade 8	3	10.0 %
Grade 9	7	23.3 %
Grade 10	7	23.3 %
Grade 11	9	30.0 %
Grade 12	2	6.7 %
Total	30	100 %

1.4. Type of Sport

<i>Individual Sport</i>	7	23.3 %
<i>Dual Sport</i>	5	16.7 %
<i>Team Sport</i>	18	60.0 %
Total	30	100 %

Level of Efficacy on Relaxation Techniques among Student-Athletes in Davao City

The table below provides an overview of the level of efficacy on relaxation techniques among student-athletes in Davao City assessing various dimensions, including techniques of breathing, imagery, and progressive muscle relaxation. In table 2, the findings revealed an overall mean of 3.93, indicating a high level of efficacy on relaxation techniques among student-athletes in Davao City. This indicates that the efficacy of relaxation techniques of the respondents is often evident. This implies that the high level of efficacy in relaxation techniques among student-athletes highlights the importance of incorporating these practices into their training regimens. Additionally, it implies that student-athletes in Davao City have a strong understanding of the benefits of relaxation techniques and are actively engaged in practicing them.

This supports the idea of Kellman (2017) which highlighted that relaxation techniques significantly reduced anxiety levels and improved athletic performance. Understanding the benefits of relaxation techniques and actively engaging in them not only enhances performance but also aids in coping with stressors commonly faced by athletes, such as competition pressure, injuries, and environmental factors. In addition, the result of the data supports the claim of Pelka (2017) suggesting that relaxation techniques were effective in promoting positive mental health and improving athletic performance. The strong emphasis on relaxation techniques reflects a comprehensive approach to athlete development, emphasizing the importance of mental health, self-regulation, and overall well-being in sports performance and training.

Table 2. Summary level of efficacy on relaxation techniques among student-athletes in Davao City

Indicators	SD	Mean	Descriptive Level
Alignment with standards	.69	3.90	High
Personal Motivation and Enjoyment	.66	3.92	High
Challenges in Implementation	.66	4.00	High
Overall Mean	.67	3.94	High

Level of efficacy on relaxation techniques among student-athletes in Davao City in terms of techniques of breathing

The results presented in Table 2.1 provide valuable insights into the efficacy of relaxation techniques among student-athletes in Davao City in terms of techniques of breathing. The level of efficacy on relaxation

technique of student-athletes in terms of techniques of breathing garnered an overall mean of 4.15 which interpreted as high. This indicates that student-athletes' efficacy on relaxation techniques in terms of techniques of breathing is often evident. This implies that student athletes use breathing techniques to help them stay calm and focused during intense moments in sports competition.

The data result is aligned to support the study of (Laborde 2022) suggested that breathing techniques, such as slow-paced breathing (SPB) and breath-holding (BH), can be valuable components of relaxation strategies to aid athletes in maintaining calmness and focus during intense moments in sports competitions. Moreover, a study of (Migliaccio 2023) highlighted that breathing techniques have been shown to improve physical sport performance by enhancing relaxation and reducing anxiety, ultimately leading to better concentration and performance outcomes. Additionally, a study of (Mosley 2023) reveals that incorporating breathing techniques has been found to reduce pre-performance anxiety, increase focus during competition, and promote relaxation before sleep, highlighting their effectiveness in managing stress and enhancing overall well-being in athletes.

Table 2.1 Summary level of efficacy on relaxation techniques among student-athletes in Davao City in terms of techniques of breathing

Techniques of Breathing	SD	Mean	Descriptive Level
1. I use breathing techniques.85 to help me to stay calm and focused during intense moments in sports competitions.		4.37	Very High
2. I incorporate breathing1.07 exercises into my pre-game routine to enhance my overall performance in sports.		3.87	High
3. I Practiced controlled.90 breathing to help me regulate my energy levels and endurance during prolonged sports activities.		4.13	High
4. I utilized breathing.88 techniques that aids in quick recovery and relaxation between intense training sessions or matches.		4.10	High
5. I believe that breathing.88 exercises are an essential component of my sports training regimen for mental and physical well-being.		4.30	Very High
Overall Mean	0.92	4.15	High

Level of efficacy on relaxation techniques among student-athletes in Davao City in terms of imagery

Table 2.2 shows the summary level of efficacy on relaxation techniques among student-athletes in Davao City in terms of imagery. The result shows that an overall mean score of 3.83 across all items indicates a consistent high level of efficacy on imagery among student-athletes in Davao City when utilizing relaxation techniques. The result of the study suggests that student-athletes' efficacy on relaxation techniques in terms of techniques of breathing is often evident. This implies that student-athletes clearly picture themselves overcoming a challenge or obstacle in a particular sport.

The result of the data strongly supports to the study of (Öztürk 2023) which highlighted the crucial role of imagery in enhancing performance and well-being among athletes, including student-athletes. The use of imagery as one of the relaxation techniques, when combined with mindfulness techniques, can effectively reduce anxiety levels, increase self-confidence, and improve overall mental well-being and performance in sports. Additionally, a study of (Deck 2022) revealed that imagery has been widely studied and implemented as a psychological skill in sports, demonstrating its effectiveness in enhancing motor performance and contributing to successful outcomes in youth athletes. Furthermore, a study of (Armstrong 2023) identified that imagery has been a valuable tool in injury rehabilitation, improving self-efficacy during the recovery process and positively impacting rehabilitation capabilities in athletes with sport-related injuries. Therefore, incorporating imagery into relaxation techniques where student-athletes vividly visualize themselves overcoming challenges in their sport can be a powerful strategy to enhance their mental skills and performance.

Table 2.2 Summary level of efficacy on relaxation techniques among student-athletes in Davao City in terms of imagery

Imagery	SD	Mean	Descriptive Level
1. I can clearly visualize myself successfully performing a specific skill in my sport.	.94	3.87	High
2. I can vividly imagine myself executing a particular game strategy during competition.	.87	3.83	High
3. I can easily picture myself achieving a specific goal in my sport (e.g., winning a match or game).	.96	3.63	High
4. I can readily imagine myself feeling confident and focused during a competition.	1.09	3.90	High
5. I can clearly picture myself overcoming a challenge or obstacle in my sport.	1.14	3.93	High
Overall Mean	1.00	3.83	High

Level of efficacy on relaxation techniques among student-athletes in Davao City in terms of progressive muscle relaxation

Table 2.3 shows the summary level of relaxation techniques among student-athletes in Davao City in terms of progressive muscle relaxation. The result shows an overall mean score of 3.81 indicating a collective high level of efficacy on progressive muscle relaxation. Moreover, this indicates that student-athletes' efficacy on relaxation techniques in terms of techniques of breathing is often evident. In addition, this implies that the student-athletes find progressive muscle relaxation to be a helpful technique in improving their overall performance in sports.

The result of the data supports the study of (Liang 2021) discovered that progressive muscle relaxation (PMR) has been shown to benefit student-athletes in various ways, ultimately enhancing their overall performance in sports. PMR have demonstrated that it effectively reduces anxiety levels in athletes, leading to improved focus and self-confidence. Similarly, a study of (Mosley 2021) revealed that PMR significantly decreases in cognitive anxiety and specific stress, along with a notable reduction in heart rate, indicating a physiological response to relaxation techniques. Furthermore, a study of (Komarudin 2021) suggested that incorporating PMR into the routine of student-athletes has been found to positively impact their mental health, sports performance, and overall well-being, showcasing the holistic benefits of relaxation techniques like PMR in optimizing athletic outcomes.

Table 2.3 Summary level of efficacy on relaxation techniques among student-athletes in Davao City in terms of progressive muscle relaxation

Progressive Muscle Relaxation	SD	Mean	Descriptive Level
1. I believe that using PMR helps me feel calmer and more relaxed before competitions.	.95	3.70	High
2. I experience a noticeable reduction in pre-game anxiety after doing PMR technique.	.97	3.50	High
3. I believe that PMR exercises effectively reduce muscle tension I feel after training sessions.	.93	3.97	High
4. I believe PMR improves my focus and concentration during competitions due to its relaxation effects.	.80	3.90	High
5. I find PMR to be a helpful technique for improving my performance in sports.	.79	4.00	High
Overall Mean	.87	3.81	High

Level of Efficacy on Relaxation Techniques among Student-Athletes in Davao City when analysed Across the Demographic Profile of the Respondents

Table 3 shows the test of difference in the level of relaxation techniques among student-athletes on relaxation techniques among student-athletes in Davao City across various demographic profiles.

In terms of sex and age, the analysis showed p-values of .583 and .306, respectively. These results led to the decision to fail to reject the null hypothesis (H_0) for both variables, indicating that differences in the efficacy on relaxation techniques among student-athletes' sex and age were not statistically significant.

Additionally, for the profile year level, the p-value was .663. The decision to fail to reject the null hypothesis suggests that the level of efficacy towards relaxation techniques did not vary significantly based the grade level of the student-athletes.

Furthermore, the p-value for type of sport was .256. Similarly, the decision not to reject the null hypothesis indicates that differences in the efficacy related to relaxation techniques across different type of sport were not statistically significant among the respondents.

The findings from the analysis of differences in the level of efficacy on relaxation techniques among student-athletes in Davao City across various demographic profiles suggest that sex, age, year level, and type of sport do not significantly influence how student-athletes efficiently utilize relaxation techniques. With non-significant p-values above the typical alpha level of .05, the decision to fail to reject the null hypothesis for each variable implies that variations in perception among teachers based on these demographic factors are not statistically meaningful. This suggests a level of consistency in how relaxation technique is efficient regardless of sex, age, year level or type of sport among the student-athletes in Davao City.

Table 3. Test of Difference in the Level of Efficacy on Relaxation Techniques among Student-Athletes in Davao City when analysed Across the Demographic Profile of the Respondents

Profile	p-value	Decision on H_0	Interpretation
Sex	.583	Failed to Reject the H_0	Not Significant
Age	.306	Failed to Reject the H_0	Not Significant
Year Level	.663	Failed to Reject the H_0	Not Significant
Type of Sport	.256	Failed to Reject the H_0	Not Significant

CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusions and recommendations of the researcher. The researcher summarized the findings to answer the problems regarding the study while recommendations are for the development of the present status about the topic presented by the researcher. The primary data were collected by distributing online survey questionnaires to 30 respondents. The results of the survey provided answers to problems stated in the previous chapter.

Conclusions

The following conclusions were drawn:

This study was aimed to describe the level of efficacy on relaxation techniques among student-athletes in Davao City. The result revealed that there was a high level of efficacy on relaxation techniques among student-athletes in Davao City suggesting that student-athletes not only understand the benefits of techniques such as breathing exercises, imagery, and progressive muscle relaxation but also actively incorporate these practices into their routines. The high efficacy highlights the critical role these techniques play in enhancing athletic performance and managing stress. Additionally, the results revealed that there is no significant difference on the level of efficacy on relaxation techniques among student-athletes in Davao City when analysed across the profile of the respondents. These results imply that the degree of efficacy regarding relaxation techniques among student-athletes in Davao City was not significantly influenced by demographic parameters such as sex, age, year level, and type of sport. Moreover, the findings of this study affirm the theory of Arousal Regulation developed by Henry Murray (1938), which emphasizes managing arousal levels to optimize performance. The high level of efficacy in relaxation techniques among student-athletes in Davao City underscores their understanding and active incorporation of practices such as breathing exercises, visualization, and progressive muscle relaxation into their routines. This alignment with Murray's theory highlights the critical role these techniques play in enhancing athletic performance and managing stress.

Recommendations

Based on the findings of this study on the efficacy of relaxation techniques among student-athletes in Davao City, it is recommended to continuously promote and integrate these practices into their training programs given that there was a high level of efficacy demonstrated by student-athletes in incorporating relaxation techniques into their routines. Providing access to resources and training on various relaxation techniques such as breathing exercises, imagery, and progressive muscle relaxation can further enhance their effectiveness in managing stress and improving performance. In addition, the lack of significant differences in efficacy based on demographic parameters highlights the universal applicability of relaxation techniques regardless of sex, age, year level, or type of sport. This suggests the importance of promoting these techniques as essential tools for all student-athletes in Davao City, regardless of their individual characteristics, to optimize their athletic performance and overall well-being. Lastly, future researchers may explore the topic using qualitative research methods to gain a comprehensive understanding of the subjective and contextual factors influencing the efficacy of relaxation techniques. This will contribute to more effective integration and promotion of these practices among student-athletes.

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