

# Appropriating Physical Education Concepts as Precursors to Moderating Stress and Anxiety during Loaded Academic Activities

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**Abstract:** This exploratory qualitative study investigates the role of physical education (PE) concepts in helping students manage stress and anxiety during periods of heavy academic workload. Academic stress is a prevalent issue among students, exacerbated by factors such as academic demands, competitive environments, and parental expectations, which can significantly impact their mental health. The research aims to explore students' perceptions and experiences related to the use of PE-based strategies, such as physical activity, mindfulness techniques, and social interaction, to alleviate academic stress and anxiety. Data were collected through semi-structured interviews with twenty purposively selected students from Ilocos Sur State Polytechnic College, focusing on their engagement with various physical activities and their effectiveness in promoting mental well-being. Thematic analysis revealed that activities like running, team sports, and yoga serve as effective tools for stress relief, improving focus and mood. However, challenges such as time constraints, mental fatigue, and limited access to facilities hinder consistent engagement in physical activity. The findings underscore the importance of integrating PE concepts into academic routines and highlight the need for educational institutions to provide supportive environments that encourage physical activity. Recommendations for future research include exploring the long-term effects of structured PE programs on student mental health and identifying strategies to overcome identified barriers.

**Keywords:** academic stress; PE-based interventions; coping strategies; educational fatigue; student mental health

## INTRODUCTION

Academic stress and anxiety are common challenges for students. Academic pressure, intense competition, and parental expectations significantly impact student mental health [1]. Various stress-management strategies have been implemented, with varying effectiveness, to improve student well-being. This study sought to investigate how physical education concepts can help students manage stress and anxiety during academically demanding periods. It aimed to explore students' perceptions and experiences regarding the use of PE-based strategies and identify specific practices that effectively reduce stress and anxiety when facing heavy academic workloads.

Research highlights the significant impact of stress and anxiety on student academic performance. Academic stress among college students is linked to increased anxiety, negatively affecting their mental health according to Zhao [2], leading to issues such as depression, reduced confidence, and lowered self-esteem. Furthermore, academic distress accounts for the largest variance in student anxiety as stated in a study by Jones et al. [3], with financial stress, family support, and peer support also being significant factors. Additionally, research indicates that students experiencing high to medium levels of stress tend to exhibit lower achievement motivation, whereas those with lower achievement motivation report reduced anxiety levels [4]. In fear of failing their education, students then are compelled to find a way to cope with this.

Among the various strategies to alleviate symptoms associated with anxiety and stress-related disorders, physical activity shows a promising potential as an additional treatment option [5]. This benefit extends to older adults, where physical activity correlates with reduced anxiety, lower stress, and improved quality of life [6]. Furthermore, higher levels of physical activity and cardiorespiratory fitness are linked to a diminished response to psychosocial stress [7]. In the case of college students, the higher the intensity in which they engage in physical activity, the stronger its effects on lowering anxiety levels [8].

Physical education, particularly through structured curricular programs, has been shown to enhance various aspects of academic achievement and classroom behavior in youth, notably in mathematics-related skills, reading, and overall composite scores [9]. Participation in moderate physical activity can further improve students' academic performance by fostering qualities such as volitional engagement, stress tolerance, life satisfaction, self-ideal realization, diligence, and interpersonal relationships [10]. While evidence supports positive effects of physical activity on children's math scores, its impact on overall academic performance remains inconclusive [11]. Additionally, a study by Sember et al. [12] notes that academic performance is influenced by more than just increased physical but can't deny the notable effect that it has considering that out of 20 physical activity interventions that the study conducted, 13 of it demonstrated significant positive effects on academic performance and were implemented by practitioners with higher qualifications in physical education and exercise science.

Despite the benefits of physical education, several challenges hinder its effective implementation in the Philippines, particularly for physical education students. The aftermath of COVID-19 necessitates adaptations in teaching methods to address issues such as student demotivation, misbehavior, and health concerns [13]. While PE professionals in Mindanao aspire for quality physical education, the reality varies significantly across cities, with factors such as sustainable peace, adequate budget allocation, and effective governance being crucial for advancement [14]. Additionally, Generation Z students express a preference for less lecturing and more practical activities, minimal competition, and collaborative group work in tertiary physical education settings [15]. Common stressors in physical education classes include interpersonal dynamics among peers, differing effort levels, and challenges associated with working outside one's peer group [16]. Moreover, junior high school students in PE programs report that the most significant stress arises from athletic training and competition, with emotional adjustment being the most frequently employed coping strategy [17].

This study aimed to understand perceptions and experiences of students in incorporating physical education into their coping strategy in alleviating their stress and anxiety during academically demanding periods in order to assess its effectiveness and help educational institutions integrate it as a precursor for the mental well-being of its learners.

## LITERATURE REVIEW

### *Prescribed Physical Activities to Relieve Stress of Students*

Various interventions, including physical exercises, breathing exercises, and yoga, have demonstrated efficacy in relieving stress [18]. Specifically, exercise interventions, particularly low- to moderate-intensity aerobic exercises, show promise in improving mental health by alleviating depressive symptoms and perceived stress within a few weeks [19]. Moderate-to-vigorous intensity activities such as dance or Pilates are also effective in enhancing mental well-being and quality of life [20]. Even moderate physical activity, such as brisk walking, has been shown to significantly reduce academic stress, particularly among female undergraduate students [21]. These findings exhibit the potential of tailored physical activity programs to mitigate stress.

### *The Impact of Physical Education on Individual Welfare*

Physical education enhances self-esteem, motivation, and overall well-being [22]. It also fosters critical thinking skills, increasing awareness and contributing to sustainable development, particularly among university students [23]. Structured physical education programs positively influence both mental health and physical fitness, potentially resulting in improved mental health indicators [24].

Furthermore, physical education plays a vital role in promoting personal and social development in young people, fostering essential qualities such as leadership, teamwork, and positive values that contribute to both individual and national growth<sup>[25]</sup>.

### *Challenges and Barriers of Physical Activity Implementation in Student Routines*

Studies consistently identify environmental factors and resource limitations as significant obstacles to implementing physical activity programs<sup>[26,27]</sup>. Additional challenges include issues related to policy goals, social influences, and teacher capacity. For students themselves, lack of time, motivation, and accessible locations are frequently cited barriers<sup>[28]</sup>. Even with well-received programs, practical limitations such as unclear expectations, insufficient planning time, and shorter preferred lesson lengths hinder implementation<sup>[29]</sup>. Further complicating matters, the integration of physical activity requires addressing issues such as adequate space, teacher training, and sufficient resources for recess activities<sup>[30]</sup>.

### *Experiences of Students in Coping with Academic Pressure*

Students employ diverse coping strategies when facing academic pressure, ranging from positive approaches to less healthy ones. Many students manage stress through recreational activities like music, meditation, and yoga<sup>[31]</sup>. Others utilize support services, build strong relationships, and increase engagement with their studies<sup>[32]</sup>. Common coping mechanisms among university students include planning, study breaks, mindfulness, setting realistic goals, healthy lifestyle choices, utilizing campus resources, and engaging in hobbies<sup>[33]</sup>. Religious practices also serve as effective coping strategies for some<sup>[34]</sup>. However, high levels of chronic stress can lead to maladaptive coping, such as substance use, particularly among students facing intense academic pressure related to college admissions<sup>[35]</sup>.

### *Institutional Interventions for Academic Stress Management*

Institutions can implement various interventions to effectively manage academic stress among students. Faculty can play a crucial role by implementing flexible assignment policies, reducing excessive workloads, and coordinating assignment deadlines<sup>[36]</sup>. Access to individual and group counseling services has also proven effective in mitigating stress<sup>[37]</sup>. Proactive classroom stress management programs, incorporating cognitive reconstruction techniques, can reduce stress and enhance self-efficacy<sup>[38]</sup>. Furthermore, creating a supportive learning environment that prioritizes student well-being, including access to counseling and a reduction in unnecessary competition, is essential<sup>[39]</sup>.

## METHODS

### **Research Design**

This study employed an exploratory qualitative research design to thoroughly investigate how physical education (PE) concepts can assist students in managing stress and anxiety during academically demanding periods. This design allows for a rich understanding of the factors influencing students' use of PE-based strategies. The primary goal was to explore students' perceptions and experiences regarding the use of these strategies, identify specific practices that effectively reduce stress and anxiety, and gain insights into the nature of their engagement with these interventions. This approach is suitable for generating hypotheses and laying the groundwork for future, more structured research<sup>[40-41]</sup>.

### **Sampling and Participants**

Twenty students (n=20) from Ilocos Sur State Polytechnic College were purposively sampled for this study. Purposive sampling, a non-probability technique, ensures the inclusion of individuals who possess characteristics relevant to the research objectives. This approach selected participants with diverse backgrounds and varying levels of academic stress to enrich the data and provide a nuanced understanding<sup>[42-43]</sup>. Selection criteria were established to ensure a representative sample reflecting the diversity within the student population. **Table 1** presents the profile of the respondents who participated.

**Table 1. Respondents Profile**

| <b>No. of Respondents</b> | <b>Age</b> | <b>Gender</b> | <b>Grade level</b> |
|---------------------------|------------|---------------|--------------------|
| Respondent 1              | 19         | Female        | 11                 |
| Respondent 2              | 20         | Male          | 12                 |
| Respondent 3              | 18         | Female        | 10                 |
| Respondent 4              | 21         | Male          | 12                 |
| Respondent 5              | 19         | Female        | 11                 |
| Respondent 6              | 22         | Male          | 12                 |
| Respondent 7              | 17         | Female        | 10                 |
| Respondent 8              | 20         | Female        | 11                 |
| Respondent 9              | 19         | Male          | 11                 |
| Respondent 10             | 21         | Male          | 12                 |
| Respondent 11             | 18         | Female        | 10                 |
| Respondent 12             | 19         | Male          | 11                 |
| Respondent 13             | 20         | Female        | 12                 |
| Respondent 14             | 21         | Male          | 12                 |
| Respondent 15             | 18         | Female        | 10                 |
| Respondent 16             | 19         | Male          | 11                 |
| Respondent 17             | 20         | Female        | 11                 |
| Respondent 18             | 22         | Male          | 12                 |
| Respondent 19             | 17         | Female        | 10                 |
| Respondent 20             | 19         | Male          | 11                 |

### **Instrument**

Semi-structured interviews utilizing open-ended questions were served as the primary data collection instrument. This method was chosen for its flexibility, allowing participants to express their experiences and perspectives regarding the use of PE-based strategies in their own words, thus providing rich qualitative data. The open-ended nature of the questions facilitated the exploration of complex issues and allow for unanticipated themes and insights to emerge. The interview guide included pre-determined questions focusing on students' perceptions of PE strategies, their experiences of using these strategies, the perceived benefits and challenges, and their overall satisfaction <sup>[44]</sup>. **Table 2** presents the guide questions used during the interview process.

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**Table 2. Instrument of the study**

| Objectives                                                                                                                                                                       | Interview Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| To explore students' experiences and perceptions of integrating physical education concepts as a strategy for managing stress and anxiety during academically demanding periods. | <ol style="list-style-type: none"><li>1. Can you describe any physical activities or exercise routines you engage in during stressful academic periods? How do they affect your stress and anxiety levels?</li><li>2. In what ways do you think physical education concepts, such as movement, exercise, or relaxation techniques, contribute to your overall well-being during intense academic workloads?</li><li>3. Have you encountered any challenges or barriers when trying to incorporate physical education practices into your routine while managing academic stress?</li></ol> |
| To examine the specific physical education practices that students find most effective in alleviating stress and anxiety while navigating heavy academic workloads.              | <ol style="list-style-type: none"><li>1. What specific physical education activities or techniques have you found most helpful in reducing stress and anxiety during heavy academic workloads?</li><li>2. Can you share a personal experience where a particular physical education practice helped you cope with academic pressure?</li><li>3. In your opinion, how can schools or universities better promote physical education strategies to support students in managing academic stress?</li></ol>                                                                                   |

### **Data Gathering Procedure**

Participants were recruited based on pre-established inclusion criteria and contacted via email or phone to explain the study, obtain informed consent, and schedule interviews. All interviews were conducted in quiet, private settings to foster a comfortable and confidential environment, encouraging open and honest discussion. With participants' explicit permission, interviews were audio-recorded to ensure accurate transcription and data preservation. A trained interviewer followed a semi-structured interview guide, allowing for flexibility to explore emergent themes while ensuring consistent data collection across all interviews.

### **Data Analysis**

Thematic analysis was used to analyze the transcribed interviews, identifying recurring concepts and themes. Significant passages were then be coded using concise labels that accurately reflect the core meaning. These codes were subsequently be synthesized to reveal connections and overlapping patterns. Through iterative refinement and cross-referencing, these codes were organized into overarching themes representing students' perspectives on PE-based stress management strategies and

influencing factors. The analysis was focus on identifying key patterns and themes that directly address the research questions concerning students' engagement with PE-based stress management strategies [45-46].

### Ethical Considerations

The study will adhere to established ethical principles governing research involving human participants, including respect for persons, beneficence, and justice as articulated in the *Belmont Report* [47]. Prior to data collection, participants will be provided with complete information regarding the purpose of the study, their rights as participants, and the voluntary nature of their involvement. Informed consent will be obtained before participation, and respondents will be assured that they may withdraw from the study at any stage without penalty. Confidentiality and anonymity will be strictly maintained through the use of pseudonyms and the secure storage of research data. Furthermore, all personal information collected during the study will be processed, stored, and protected in accordance with the provisions of the *Data Privacy Act of 2012* [48], ensuring that participants' privacy and data security are safeguarded throughout the research process.

## RESULTS

**Objective 1:** To explore students' experiences and perceptions of integrating physical education concepts as a strategy for managing stress and anxiety during academically demanding periods.

**Question 1:** *Can you describe any physical activities or exercise routines you engage in during stressful academic periods? How do they affect your stress and anxiety levels?*

### Theme 1: Running/Jogging

Ten (10) respondents expressed that whenever they feel overwhelmed with assignments and exams, they go for a 30-minute run. This clears their minds and provides a sense of accomplishment. The endorphins released make them feel less anxious and more focused when they return to studying. They prefer early morning runs to improve mood, alertness, and concentration. Physical education students find that running helps them manage academic stress by clearing their minds, improving focus, and boosting mood through endorphin release. Whether it's a morning jog, nature run, sprint intervals, or pre-exam jog, they report feeling less anxious and more mentally prepared afterward.

*"Whenever I feel overwhelmed with assignments and exams, I go for a 30-minute run. It helps clear my mind, and I always feel a sense of accomplishment afterward."* -Respondent 9

*"I prefer early morning runs before a long study session. It wakes me up, improves my mood, and helps me concentrate better throughout the day."* -Respondent 15

### Theme 2: Team Sports

Ten (10) respondents expressed that playing a game of basketball with their friends helps them take a break from studying. The competitive aspect shifts their focus away from stress, and the social interaction makes them feel refreshed. Friendly basketball games offer social interaction and a mental reset. Physical education students find that playing team sports like basketball, soccer, and volleyball helps reduce stress by providing a competitive, social, and engaging break from academic work. The combination of physical activity, teamwork, and fun improves their mood, re-energizes them, and helps them return to studying with a clearer mind.

*"Playing a game of basketball with my friends helps me take a break from studying. The competitive aspect shifts my focus away from stress, and the social interaction makes me feel refreshed."* -Respondent 1

*"Engaging in a friendly basketball match keeps me active and social. It's a great way to bond with friends while getting a much-needed mental reset."* -Respondent 11

### Theme 3: Cycling

Five (5) respondents expressed that they take their bike and go for a long ride when they are feeling overwhelmed. The fresh air and change of scenery help them reset their mind. Long rides act as moving meditation, significantly reducing stress. It gives them time to think, and by the time they are

back, they feel much less anxious. Physical education students use cycling as a stress-relief activity during academic pressure. Fresh air, rhythmic movement, and changing scenery provide a mental reset, reducing anxiety and improving focus. Long rides, evening sessions, or nature trail rides all offer this benefit.

*"I take my bike and go for a long ride when I'm feeling overwhelmed. The fresh air and change of scenery help me reset my mind. It's like a moving meditation that reduces my stress levels significantly."* -Respondent 12

*"Long-distance cycling works like therapy for me. It gives me time to think, and by the time I'm back, I feel much less anxious."* -Respondent 20

**Question 2:** *In what ways do you think physical education concepts, such as movement, exercise, or relaxation techniques, contribute to your overall well-being during intense academic workloads?*

### **Theme 1: Movement & Exercise**

Ten (10) respondents expressed that staying physically active helps them maintain their energy levels. Sitting for long hours drains them, but a quick workout or even stretching keeps them refreshed and focused. Additionally, they mentioned that exercise is their stress reliever. It releases endorphins, which improve their mood and help them stay positive even during exam season. Regular movement, including short study breaks, prevents fatigue and maintains alertness.

*"Staying physically active helps me maintain my energy levels. Sitting for long hours drains me, but a quick workout or even stretching keeps me refreshed and focused."* -Respondent 13

*"Exercise is my stress reliever. It releases endorphins, which improve my mood and help me stay positive even during exam season."* -Respondent 4

### **Theme 2: Relaxation Techniques**

Ten (10) respondents expressed that deep breathing and mindfulness exercises help them stay calm before exams. This reduces anxiety and improves concentration. Additionally, they mentioned that stretching and yoga improve their flexibility and posture, which helps a lot since they spend hours studying. It also relieves tension from stress. Meditation and relaxation techniques help them sleep better. Good rest is essential for retaining information and performing well academically.

*"Deep breathing and mindfulness exercises help me stay calm before exams. They reduce my anxiety and help me concentrate better."* -Respondent 2

*"Stretching and yoga improve my flexibility and posture, which helps a lot since I spend hours studying. It also relieves tension from stress."* -Respondent 20

### **Theme 3: Recovery**

Five (5) respondents mentioned that balancing physical activity with academics keeps them from feeling overwhelmed. They stay more productive when their body and mind are both taken care of. Additionally, they mentioned that physical education has taught them the importance of recovery. Just like muscles need rest after training, their brain needs breaks to function at its best. This approach has improved mental resilience and ability to handle academic pressure.

*"Balancing physical activity with academics keeps me from feeling overwhelmed. I stay more productive when my body and mind are both taken care of."* -Respondent 5

*"Physical education has taught me the importance of recovery. Just like muscles need rest after training, my brain needs breaks to function at its best."* -Respondent 14

**Question 3:** Have you encountered any challenges or barriers when trying to incorporate physical education practices into your routine while managing academic stress?

### **Theme 1: Time Management & Academic Pressure**

Ten (10) respondents expressed that balancing coursework, assignments, and studying with exercise is tough. They sometimes feel guilty prioritizing exercise over studying. Additionally, they

mentioned that during exam season, they struggle to find time for workouts. Even though they know it helps, they often prioritize studying over physical activity. Fluctuating academic demands make consistent exercise difficult, especially during busy weeks.

*"Balancing coursework, assignments, and studying with exercise is tough. Sometimes, I feel guilty spending time working out instead of studying."* -Respondent 9

*"During exam season, I struggle to find time for workouts. Even though I know it helps, I often prioritize studying over physical activity."* -Respondent 5

### **Theme 2: Fatigue & Mental Exhaustion**

Ten (10) respondents expressed that after long hours of studying, they feel too mentally drained to engage in any physical activity, even though they know it would help them feel better. Lack of motivation is a significant barrier when overwhelmed with schoolwork. Some days, they are so mentally exhausted from studying that even the thought of exercising feels like another task on their to-do list.

*"After long hours of studying, I feel too mentally drained to engage in any physical activity, even though I know it would help me feel better."* -Respondent 9

*"Lack of motivation is a big issue. When I'm overwhelmed with schoolwork, it's hard to push myself to exercise, even if I know it's beneficial."* -Respondent 2

### **Theme 3: Physical & Environmental Barriers**

Five (5) respondents expressed that access to facilities can be an issue. Lack of gym or sports area access necessitates workout adjustments, sometimes leading to demotivation. Additionally, they mentioned that bad weather affects their routine. It disrupts outdoor exercise routines, impacting consistency. Physical education students face accessibility issues, gym schedule conflicts, crowded facilities, bad weather, and limited workout spaces as barriers to staying active. These challenges often disrupt consistency and motivation, making it harder to incorporate physical activity into their academic routines.

*"Access to facilities can be an issue. If I can't go to the gym or sports area, I have to adjust my workouts, which sometimes demotivates me."* -Respondent 7

*"Bad weather affects my routine. If I usually run or cycle outdoors, rain or extreme cold forces me to change my plans, and that disrupts my consistency."* -Respondent 8

**Objective 2:** To examine the specific physical education practices that students find most effective in alleviating stress and anxiety while navigating heavy academic workloads.

**Question 1:** What specific physical education activities or techniques have you found most helpful in reducing stress and anxiety during heavy academic workloads?

### **Theme 1: The Social & Teamwork**

Ten (10) respondents expressed that playing volleyball or soccer with their classmates is the best way for them to unwind. Social interaction and teamwork make it enjoyable rather than exercise. Additionally, they mentioned that they love playing doubles in badminton. The quick movements and coordination with their partner make it an exciting way to relieve stress while staying active. The enjoyable atmosphere keeps them motivated and refreshed.

*"Playing volleyball or soccer with my classmates is the best way for me to unwind. The social aspect helps me escape academic pressure, and the teamwork makes it feel less like exercise and more like fun."* -Respondent 14

*"I love playing doubles in badminton. The quick movements and coordination with my partner make it an exciting way to relieve stress while staying active."* -Respondent 17

### **Theme 2: The Mindfulness & Relaxation**

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Five (5) respondents expressed that yoga and deep breathing exercises are their go-to techniques when they feel overwhelmed. Practicing mindfulness through movement helps them stay present, reduce anxiety, and improve focus on their studies. Additionally, they mentioned that stretching before and after studying helps them release built-up tension and provides a mental and physical reset. These relaxation techniques provide both physical and mental relief, allowing them to approach their studies with greater clarity and calmness.

*"Practicing mindfulness through movement helps me stay present, reduce anxiety, and improve focus on my studies."* -Respondent 11

*"Stretching before and after studying helps me release built-up tension. It's a simple way to reset my body and mind."* -Respondent 15

### **Theme 3: The Routine & Consistency**

Ten (10) respondents expressed that for them, consistency is key. They stick to a daily workout schedule, whether it's resistance training or a quick jog. This routine helps maintain balance and prevent burnout, even with a heavy academic workload. Their structured approach allows them to balance physical activity with academic responsibilities, ensuring they maintain both physical and mental well-being.

*"For me, consistency is key. I stick to a daily workout schedule, whether it's resistance training or a quick jog. Keeping a routine helps me maintain balance and prevents academic burnout."* -Respondent 2

*"Having a structured workout plan, like weight training on specific days and cardio on others, helps me stay on track even when my academic workload gets heavy."* -Respondent 10

**Question 2:** Can you share a personal experience where a particular physical education practice helped you cope with academic pressure?

### **Theme 1: Team Sports for Social Support**

Ten (10) respondents expressed that there was a time when they were struggling with a heavy workload and felt isolated. Volleyball with friends provided a social break and reduced feelings of isolation. The social interaction and teamwork made them feel supported and refreshed, making it easier to return to their studies with a positive mindset. Additionally, they mentioned that they were feeling burnt out from back-to-back exams, but joining their classmates for a friendly badminton match helped them unwind. The laughter, competition, and teamwork made them feel less alone in their struggles. Team sports foster a supportive environment, improving students' mindset for studying.

*"The social interaction and teamwork made me feel supported and refreshed, making it easier to return to my studies with a positive mindset."* -Respondent 5

*"The laughter, competition, and teamwork made me feel less alone in my struggles."* -Respondent 3

### **Theme 2: Dance for Fun & Motivation**

Five (5) respondents expressed that one semester, they were so stressed that they lost motivation to study. They joined a dance class just for fun, and it turned out beneficial. The music, movement, and energy completely lifted their mood and gave them the motivation they needed to stay productive in school. Additionally, they mentioned that dancing is their way of shaking off stress. Whether it's freestyle or a structured class, it helps them express themselves, release tension, and boost their confidence, which translates into better focus in school. Dance offers physical and emotional benefits, enhancing productivity and positivity.

*"The music, movement, and energy completely lifted my mood and gave me the motivation I needed to stay productive in school."* -Respondent 18

*"Dancing is my way of shaking off stress. Whether it's freestyle or a structured class, it helps me express myself, release tension, and boost my confidence, which translates into better focus in school."* -Respondent 11

### **Theme 3: Running for Mental Clarity**

Ten (10) respondents expressed that instead of sitting at their desk for hours, they started running for 30 minutes every evening. This improved their focus and reduced anxiety. Additionally, they mentioned that running has become their go-to stress reliever. Whenever they feel stuck or mentally drained from studying, a quick jog helps them reset. Movement, fresh air, and rhythmic breathing offer mental and emotional relief, improving coping with academic challenges.

*"Instead of sitting at my desk for hours, I started running for 30 minutes every evening. It helped clear my mind, and when I got back to studying, I was more focused and less anxious."* -Respondent 16

*"Running has become my go-to stress reliever. Whenever I feel stuck or mentally drained from studying, a quick jog helps me reset."* -Respondent 5

**Question 3:** In your opinion, how can schools or universities better promote physical education strategies to support students in managing academic stress?

### **Theme 1: Provide More Accessible Sports & Fitness Facilities**

Ten (10) respondents expressed that many students want to exercise but don't have access to proper facilities. Schools should provide affordable or free access to exercise facilities to remove financial barriers. Limited availability and high demand for existing sports courts also pose a challenge. Schools should expand recreational spaces so more students can participate in physical activities without restrictions. These changes would remove financial and logistical barriers, encouraging more students to stay active and manage academic stress effectively.

*"Schools should provide affordable or free gym access, sports courts, and outdoor spaces so students can stay active without financial barriers."* -Respondent 9

*"Schools should expand recreational spaces so more students can participate in physical activities without restrictions."* -Respondent 14

### **Theme 2: Integrate Physical Activity into Academic Schedules**

Ten (10) respondents expressed that universities should incorporate short movement breaks or optional fitness sessions between long lectures. Simple stretches or light exercises can boost energy and reduce stress. Additionally, they mentioned that sitting through back-to-back lectures is exhausting. Incorporating short movement breaks would combat lecture fatigue and improve focus. These strategies would help students stay energized, focused, and better equipped to manage academic stress.

*"Universities should incorporate short movement breaks or optional fitness sessions between long lectures."* -Respondent 1

*"If professors included short movement breaks like stretching or breathing exercises it would help us stay more focused and less fatigued."* -Respondent 7

### **Theme 3: Organize Stress-Relief Activities & Events**

Five (5) respondents mentioned that hosting events like yoga sessions, group runs, or recreational sports tournaments would encourage students to take active study breaks and relieve stress in a fun, social way. Additionally, they mentioned that recreational sports tournaments, like friendly basketball or soccer games, would help students unwind while also promoting teamwork and social interaction. Universities should offer fun, engaging stress-relief activities to promote student well-being.

*"Hosting events like yoga sessions, group runs, or recreational sports tournaments would encourage students to take active study breaks and relieve stress in a fun, social way."* -Respondent 8

*"Recreational sports tournaments, like friendly basketball or soccer games, would help students unwind while also promoting teamwork and social interaction."* -Respondent 18

## **DISCUSSION**

**Objective 1:** To explore students' experiences and perceptions of integrating physical education concepts as a strategy for managing stress and anxiety during academically demanding periods.

Physical activity serves as a crucial stress-management tool for physical education students facing academic pressure. Respondents reported that running, whether a short burst or a longer session, clears their minds, improves focus, and boosts mood through endorphin release, making them feel more prepared for studying (early morning runs were particularly effective). This corroborates Markotić et al.'s findings <sup>[49]</sup> that running therapeutically addresses various negative psychological conditions, including tension, low self-image, and poor mood. Other respondents found that playing team sports like basketball provided a competitive, social outlet that refreshed them and allowed for a mental reset. The combination of physical activity, teamwork, and social interaction improved their mood and re-energized them. This idea is further supported by a study conducted by Hamazov et al. <sup>[50]</sup>, in which the researchers believe that team sports offer the greatest benefits in alleviating stress, as they allow you to socialize and find like-minded people. Respondents also utilized cycling as a form of moving meditation, finding that the fresh air, rhythmic movement, and change of scenery reduced anxiety and improved focus. This is supported by research suggesting that team sports offer significant stress relief through socialization <sup>[51]</sup>.

Physical education students also utilize a variety of strategies to manage academic stress and maintain well-being. Respondents emphasized the importance of regular physical activity, even short bursts, in maintaining energy levels, combating fatigue and improving focus. Exercise also served as a stress reliever, releasing endorphins that improved mood and resilience, particularly during high-pressure periods like exams. Respondents found deep breathing, mindfulness, stretching, and yoga to be effective in reducing anxiety and improving concentration, contributing to better sleep and academic performance. Exercise moderately reduces fatigue, with meditative exercise programs being most effective for improving sleep quality <sup>[52]</sup>. Respondents also highlighted the importance of balancing physical activity with academics, emphasizing the need for both physical and mental recovery to maintain productivity and resilience. Rest promotes physical and mental well-being <sup>[53]</sup>.

Balancing academic demands with regular physical activity presents significant challenges for physical education students. The respondents struggle to find time for exercise, particularly during high-pressure periods like exams, often prioritizing studying over workouts due to time constraints and feelings of guilt. Time constraints are the biggest barrier to student exercise, along with access to facilities and motivation <sup>[54]</sup>. Maintaining a consistent exercise schedule proves difficult due to fluctuating academic workloads, with some weeks leaving little to no time for physical activity. Furthermore, mental exhaustion from studying often leads to a lack of motivation to exercise, even when respondents recognize its benefits. Mental fatigue significantly impacts endurance performance <sup>[55]</sup>. Finally, access to facilities and inclement weather create additional obstacles, impacting consistency and motivation. These factors confirm the need for flexible and accessible support systems to help students integrate physical activity into their academic routines despite these significant barriers.

**Objective 2:** To examine the specific physical education practices that students find most effective in alleviating stress and anxiety while navigating heavy academic workloads.

Physical education students employ diverse strategies to manage academic stress and maintain well-being, often integrating social interaction and mindfulness practices into their routines. Many find that team sports like volleyball and soccer, or even doubles badminton, provide enjoyable and effective stress relief, combining physical activity with social interaction and teamwork. Others prioritize mindfulness techniques such as yoga and deep breathing exercises to promote calmness and focus, often incorporating stretching to relieve physical tension. Structured exercise programs not only improve stress management but also enhance motor skills such as coordination, agility, and movement accuracy <sup>[56]</sup>. A significant number emphasize the importance of consistency, maintaining a structured workout schedule to balance physical and mental well-being and prevent burnout, even when academic demands are high.

Social interaction and physical activity play a significant role in helping physical education students cope with academic stress and feelings of isolation. Many found that participating in team

sports like volleyball and badminton provided a much-needed social outlet, fostering a sense of belonging and support that improved their overall mood and ability to focus on their studies. Varsity players in particular pursue sports because it develops their competence and social skills, and community sports initiatives promote a competitive mindset and boost confidence <sup>[57]</sup>. The social benefits of physical activity extend beyond stress relief; team sports, in particular, provide opportunities for socialization and building friendships among university students <sup>[58]</sup>. For some, engaging in activities like dance provided a creative and energizing outlet that boosted motivation and confidence. Dance offers a creative outlet for stress relief, boosting confidence and providing a healthy way to process emotions <sup>[59]</sup>. Others found that regular running sessions served as an effective way to clear their minds, reduce anxiety, and improve focus, providing both physical and mental relief. These approaches show the importance of incorporating both social interaction and physical activity into stress-management strategies for students.

Students also identified several key improvements that universities could implement to better support their physical and mental well-being. Many emphasized the need for improved access to affordable or free fitness facilities, including gyms, sports courts, and outdoor spaces, to remove financial and logistical barriers to physical activity. Improved facilities and resources in college gyms would significantly increase student participation in sports and fitness activities, enhancing their overall well-being <sup>[60]</sup>. Incorporating short movement breaks or optional fitness sessions into long lectures was also suggested as a way to combat fatigue and improve focus. This is supported by Peiris et al.'s research <sup>[61]</sup> showing that classroom movement breaks reduce sedentary behavior and improve alertness, concentration, and enjoyment. Finally, hosting regular events such as yoga sessions, group runs, and recreational sports tournaments was proposed as a fun and engaging way to encourage active study breaks and promote stress relief through social interaction. School sports positively impact students' educational experiences by fostering teamwork, discipline, and other valuable life skills, while also contributing to a stronger school community <sup>[62]</sup>.

## CONCLUSION

This study explored students' experiences integrating physical activity into stress management during academically demanding periods. Findings showed that running, team sports, and cycling effectively relieved stress, consistent with existing research. Students also utilized mindfulness techniques and emphasized the importance of balancing physical activity with academics for overall well-being. Significant challenges remain, including time constraints, mental fatigue, and access to facilities. Universities should therefore provide flexible, accessible support systems to promote student well-being. Future research could investigate the long-term effects of integrated physical activity programs and explore innovative strategies to overcome the barriers identified in this study..

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