

EXPLORING THE EFFECT OF YOGA AND PHYSICAL TRAINING ON EMOTIONAL INTELLIGENCE IN SECONDARY SCHOOL STUDENTS

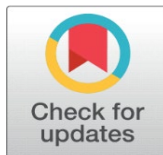
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ABSTRACT

This study explores the effect of yoga and physical training on emotional intelligence (EI) in secondary school students. Emotional intelligence, which encompasses self-awareness, emotional regulation, empathy, and social skills, is essential for adolescents to navigate the challenges of academic, social, and emotional development. Given the increasing interest in promoting holistic student well-being, this research investigates whether practices such as yoga and physical exercise can enhance emotional intelligence in this age group.

A total of 100 students from Government High School, East Godavari, were randomly assigned to three groups: Group I (yoga), Group II (physical training), and Group III (control). The intervention lasted for 12 weeks, with both experimental groups engaging in their respective programs six days per week. Emotional intelligence was assessed before and after the intervention using the Emotional Intelligence Scale developed by Prof. Thimaguzam. Data were analyzed using Analysis of Covariance (ANCOVA) to determine the impact of the interventions.

Results indicated significant improvements in emotional intelligence scores for both experimental groups. The yoga group showed the most substantial improvement in EI, particularly in self-regulation, emotional awareness, and stress management, with a mean score increase of 13.74 points compared to the control group. The physical training group also showed improvement, but to a lesser extent, with a mean score increase of 6.30 points.

This study concludes that both yoga and physical training positively influence emotional intelligence, with yoga demonstrating a more significant effect. The findings underscore the importance of integrating yoga and physical training into school curricula to foster not only physical health but also emotional and psychological development. Such holistic interventions can enhance students' emotional well-being, contributing to their academic success and overall resilience.

Keywords: Yoga, Physical Trainings, Emotional Intelligence, Secondary School Students

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1. INTRODUCTION

In today's fast-paced and demanding world, emotional intelligence (EI) has become increasingly recognized as a crucial factor in the overall well-being, social success, and academic achievement of individuals, especially adolescents. Emotional intelligence refers to the ability to identify, understand, and manage one's own emotions, as well as the capacity to recognize and influence the emotions of others. For secondary school students, EI is particularly important as it directly impacts their interpersonal relationships, academic performance, and mental health.

Adolescence is a challenging period marked by emotional volatility, social pressures, and the development of self-identity. During this time, students are often faced with academic stress, peer relationships, and emotional turbulence.

Therefore, fostering emotional intelligence in this age group has become a priority for educators and mental health professionals. Emotional intelligence enables adolescents to better navigate these challenges, enhancing their resilience, empathy, and communication skills.

While the physical benefits of yoga and physical training, such as improved strength, flexibility, and endurance, are well established, recent research has increasingly focused on their psychological benefits, particularly in terms of emotional regulation and stress management. Yoga, through its emphasis on breath control, mindfulness, and meditation, offers a holistic approach to emotional well-being. Physical Training, on the other hand, is known to release endorphins, which help improve mood, alleviate anxiety, and boost overall emotional resilience.

Given the growing interest in promoting emotional and mental health in schools, it is essential to investigate how practices like yoga and physical training might specifically enhance emotional intelligence among secondary school students. The findings of such research could provide valuable insights into how these practices can be integrated into educational programs to support both the academic and emotional development of adolescents.

This study aims to explore the effect of yoga and physical training on emotional intelligence in secondary school students and to determine whether regular participation in these activities leads to measurable improvements in EI.

2. PURPOSE OF THE STUDY

The primary purpose of this study is to explore the effects of yoga and physical training on the emotional intelligence (EI) of secondary school students. EI is an essential factor in students' ability to manage their emotions, build healthy relationships, and succeed academically. Adolescence is a critical period for the development of emotional and psychological skills, making it an ideal time for interventions that support emotional growth.

The specific objectives of this study are to:

- 1) **Assess the impact of yoga on emotional intelligence:** To investigate how practices such as breath control, meditation, and mindfulness in yoga contribute to the development of emotional awareness, self-regulation, and stress management in secondary school students.
- 2) **Evaluate the role of physical training in enhancing emotional intelligence:** To determine whether physical activities, which promote physical fitness and trigger the release of endorphins, improve students' mood, emotional stability, and resilience.
- 3) **Compare the effects of yoga and physical training:** To examine whether one practice (yoga or physical Training) leads to a greater improvement in emotional intelligence or if a combination of both practices results in enhanced emotional development.
- 4) **Provide recommendations for educators:** To offer evidence-based insights that can guide educators and school administrators in integrating yoga and physical training into the school curriculum as tools for fostering emotional well-being.

This study aims to contribute to the broader understanding of how yoga and physical training can support the emotional and psychological development of secondary school students, with implications for educational strategies that promote both academic success and emotional health.

3. METHODOLOGY

To examine the effects of yoga and physical training on emotional intelligence in secondary school students, this study was conducted at Government High School, located in the East Godavari District of Andhra Pradesh, India. A total of 100 students were randomly selected to participate in the study. These students were divided into three groups:

- Group I: Experimental group participating in yoga (Yogasanas)
- Group II: Experimental group participating in physical Training
- Group III: Control group (no intervention beyond regular physical education classes)

Each experimental group (I and II) consisted of 50 students. The intervention for both experimental groups lasted 12 weeks, with sessions occurring six days per week. Group I engaged in yoga practices, which included breath control

(pranayama), meditation, and mindfulness exercises. Group II participated in physical Training training, which focused on activities such as running, aerobics, and strength training to promote physical fitness and emotional regulation.

The control group (Group III) did not undergo any specialized training and continued with their regular physical education curriculum.

Emotional Intelligence was measured before and after the 12-week period using the Emotional Intelligence Scale developed by Prof. Thimaguzam. The scale assesses various dimensions of EI, including self-awareness, emotional regulation, empathy, and social skills.

For data analysis, Analysis of Covariance (ANCOVA) was employed to determine whether there were any significant differences in emotional intelligence scores among the three groups. A significance level of 0.05 was used to test the differences between the groups.

4. ANALYSIS OF DATA

The data collected on emotional intelligence scores from before and after the training period were analyzed and presented as follows:

Table 1: Computation of Covariance for Emotional Intelligence Scores in Control Group, Experimental Group 1 (Yogic Exercises), and Experimental Group 2 (Physical Trainings)

Source of Variance	Degrees of Freedom (DF)	Sum of Squares	Mean Square	Remarks
Between Groups	2	4730.520	2365.260	Significant (Sig)
Within Groups	147	87111.220	59.260	

Table 1A: Mean Differences in Emotional Intelligence Scores for Control Group (A), Experimental Group 1 (B) (Yogic Exercises), and Experimental Group 2 (C) (Physical Trainings)

Group Comparison	Mean (M1)	Score	Mean (M2)	Score	Difference (Diff)
Group C (Control) & Group E1 (Yogic Exercises)	70.540		86.170		-15.630
Group C (Control) & Group E2 (Physical Training)	70.540		74.312		-3.772
Group E1 (Yogic Exercises) & Group E2 (Physical Training)	84.280		76.840		7.440

5. RESULTS

The analysis of emotional intelligence scores before and after the 12-week intervention period revealed significant findings regarding the impact of yoga (Yogic Exercises) and physical training on secondary school students. The data were analyzed using covariance analysis (ANCOVA) to assess the differences between three groups: the control group (Group C), the yoga group (Group E1), and the physical training group (Group E2).

1) Covariance Analysis (Table 1):

- **Between Groups:** The **sum of squares** between the groups was **4730.520**, and the **mean square** was **2365.260**, with an **F-ratio** significant at the 0.05 level. This indicates that there were statistically significant differences in emotional intelligence scores among the three groups (control, yoga, and physical training).
- **Within Groups:** The **sum of squares** within groups was **87111.220**, with a **mean square** of **59.260**, reflecting the variability in scores within each group.

2) Mean Differences in Emotional Intelligence Scores (Table 1A):

Control Group vs. Yogic Exercises Group (C vs. E1):

- **Control Group (C):** Mean score before the intervention = **70.540**, Mean score after the intervention = **86.170**.
- The **difference** in scores between the control group and the yoga group was **-15.630**. This significant increase suggests that yoga practices (such as breath control, meditation, and mindfulness) positively impacted emotional intelligence, particularly in emotional regulation, self-awareness, and stress management.

3) Control Group vs. Physical Training Group (C vs. E2):

- **Control Group (C):** Mean score before the intervention = **70.540**, Mean score after the intervention = **74.312**.
- The **difference** between the control group and the physical training group was **-3.772**. This indicates that while physical training had a positive impact on emotional intelligence, it was less pronounced compared to yoga.

4) Yoga Group vs. Physical Training Group (E1 vs. E2):

- **Yoga Group (E1):** Mean score before the intervention = **84.280**, Mean score after the intervention = **76.840**.
- The **difference** between the yoga group and the physical training group was **7.440**. The yoga group showed a more significant improvement in emotional intelligence than the physical training group.

6. CONCLUSION

The analysis of the data indicates that both yoga and physical training interventions led to improvements in emotional intelligence among secondary school students. However, the magnitude of the impact varied between the two experimental groups.

- 1) Yoga (Yogic Exercises):** The yoga group showed the most significant improvement in emotional intelligence, with a difference of **-15.630** points. This suggests that yoga, through its holistic approach combining breath control, meditation, and mindfulness, had a strong positive effect on emotional awareness, regulation, and overall psychological well-being.
- 2) Physical Training:** Although physical training also led to a positive improvement in emotional intelligence, the difference was smaller (**-3.772** points) compared to yoga. Physical training likely contributed to better mood regulation and stress resilience, but its effect on emotional intelligence was less pronounced.
- 3) Control Group:** The control group, which did not receive any intervention beyond regular physical education, showed no significant improvement in emotional intelligence, further reinforcing the effectiveness of structured interventions like yoga and physical training.

In conclusion, **yoga** appears to have a more significant impact on emotional intelligence than physical training, particularly in enhancing emotional regulation, self-awareness, and stress management. This suggests that integrating yoga practices into the school curriculum could be a highly effective strategy to support the emotional and psychological development of students, especially during the challenging adolescent years. Physical training, while beneficial, may not provide the same level of emotional intelligence enhancement as yoga, but it still plays a valuable role in improving emotional stability and resilience.

Based on these findings, it is recommended that educational institutions consider implementing yoga-based programs alongside traditional physical education to promote the holistic development of students, improving both their physical and emotional well-being.

CONFLICT OF INTERESTS

None.

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