

ORIGINAL RESEARCH ARTICLE

Effect of Yoga Attitude on Senior Secondary School Students in Chandigarh: A Comparative Study

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ABSTRACT

Introduction: This study investigates the attitudes of senior secondary school students in Chandigarh towards Yoga, focusing on the impact of an 8-week intervention on their perceptions and well-being. A total of 200 students (100 male and 100 female), aged 15–20, were randomly selected from government schools. The Yoga Attitude Scale by Dr. M. K. Muchhal (2009) was employed to measure attitudes before and after the intervention, classifying them as favorable, moderate, or unfavorable.

Methods: A descriptive research method was used, and the intervention involved practicing the Common Yoga Protocol for 45 min, 5 days a week, over 8 weeks. Pre-test and post-test data were analyzed using the “*t*” test for statistical significance.

Results: The findings revealed a significant improvement in attitudes toward Yoga. Male students’ favorable attitudes increased by 7% (from 55% to 62%), while female students showed an 11% increase (from 50% to 61%). The reduction in unfavorable attitudes was more prominent among females, with a 13% decline compared to a minor reduction for males. The mean scores for males rose from 38.755 to 45.087, and for females, from 33.091 to 42.331.

Discussion: The results demonstrate that Yoga can positively influence adolescents’ perceptions, with female students showing a stronger response to the intervention. These findings suggest that integrating Yoga into school curricula could promote well-being and help manage academic stress.

Conclusion: The results clearly indicate that both groups showed a positive shift in their attitudes post intervention. The intervention proved effective, as a shift from moderate to favorable attitudes was observed

1. INTRODUCTION

Education serves as a cornerstone for personal and societal development, fostering growth, understanding, and essential skills among learners. In this dynamic environment, students are increasingly seeking active roles in their educational journeys, yearning for classrooms that encourage open dialogue, inquiry, and collaborative learning. Teachers are thus tasked with creating engaging, clear, and relevant experiences that resonate with students’ lived realities. They are expected to employ various methodologies that cater to diverse learning styles, often incorporating humor and relatable examples to elucidate complex concepts.

Within this educational framework, Yoga has emerged as a transformative practice that provides significant benefits to individuals striving for balance and well-being. The term “Yoga,” derived from the Sanskrit word meaning “union” or “linking,” encapsulates a holistic approach aimed at harmonizing the body, mind, and soul toward a purposeful end.^[1] Yoga promotes self-awareness and cultivates inner strength, emphasizing the interconnectedness of the individual with the broader universe. As a practice, it transcends mere physical postures to include ethical principles, *Prāṇāyāma* (breathing techniques), and meditative practices that enhance overall well-being.

The integration of Yoga into school curricula has gained traction in recent years, signaling a promising strategy for enhancing students’ physical and mental health. Several studies have highlighted the efficacy of Yoga in alleviating stress and anxiety levels commonly experienced by adolescents, particularly in high-pressure academic environments.^[2,3]

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The practice equips students with essential tools for relaxation, improves focus and concentration, and enhances physical flexibility. In a study by Khalsa *et al.*,^[4] it was found that regular Yoga practice significantly improved students' emotional regulation and overall mental health, ultimately contributing to their academic performance.

In the bustling city of Chandigarh, known for its vibrant educational landscape, the attitudes of senior secondary school students toward Yoga warrant critical examination. As adolescents navigate the challenging transition from childhood to adulthood, they face myriad pressures, including academic workload, examination preparations, and extracurricular commitments. This phase of life, marked by intense stress and anxiety, underscores the necessity for effective coping mechanisms.^[5] Incorporating Yoga into the daily routines of students may serve as a protective factor against the psychological and emotional strains associated with this developmental stage.

Research indicates that Yoga can positively influence not only students' physical health but also their cognitive abilities. For instance, a meta-analysis by Cramer *et al.* ^[6] demonstrated that Yoga practice can enhance executive functioning, including memory, attention, and cognitive flexibility. These cognitive benefits are crucial for students as they engage in complex problem-solving and critical thinking tasks inherent in their academic pursuits. Furthermore, a study conducted by Ranganathan *et al.*^[7] highlighted that adolescents practicing Yoga exhibited increased attention spans and enhanced memory, which contributed to improved academic outcomes.

The implementation of Yoga in educational settings not only benefits students individually but can also foster a more positive and cohesive classroom environment. As students engage in collective Yoga practices, they develop stronger peer relationships and a sense of community, further supporting their emotional well-being.^[8] The collaborative nature of Yoga encourages teamwork and communication, qualities that are essential for success in both academic and social realms.

This research aims to explore the Yoga attitude of senior secondary school students in Chandigarh, focusing on their perspectives, experiences, and perceived benefits of incorporating Yoga into their daily lives. By conducting a comprehensive analysis of these attitudes, this study seeks to illuminate the potential impact of Yoga on students' overall well-being and academic performance. The findings will contribute to the growing body of knowledge surrounding the integration of Yoga into education, providing valuable insights for educators, policymakers, and mental health professionals.

As the pressures faced by adolescents continue to escalate, the necessity for effective stress management strategies becomes increasingly apparent. Yoga, with its multifaceted benefits, presents a viable solution for enhancing the holistic development of students. This study not only aims to assess the attitudes of senior secondary school students towards Yoga but also aspires to underscore its relevance in promoting their well-being and academic success.

1.1. Aim

The aim of the study was to evaluate the attitude towards Yoga (ATY) among senior secondary students in government schools of Chandigarh and assess its impact on their physical, mental, and emotional well-being.

1.2. Objective

The objective of the study was to study the ATY among Senior Secondary students of Government Schools in Chandigarh.

2. METHODS

In this comparative study on the effect of Yoga attitude among senior secondary school students in Chandigarh, a descriptive research method was employed. A sample of 200 students ($n = 200$), aged 15–20 years, was selected using random sampling techniques to ensure representativeness. Data were collected through a structured questionnaire assessing students' attitudes toward Yoga, including factors such as perception, motivation, and participation. Statistical analysis was conducted to compare the attitudes across different demographics, enabling insights into the overall impact of Yoga in this age group.

2.1. Selection of Subjects

A total of 200 students, aged between 15 and 20 years, were randomly selected for this study from the Government schools of Chandigarh. This sampling technique ensured that every individual had an equal opportunity of being chosen, reducing bias and enhancing the representativeness of the sample.

2.2. Variables in the Study

A variable in research represents any characteristic that can be measured or observed. There are two types of variables: Independent and dependent. In this study, the common Yoga protocol was selected as the independent variable, while ATY was the dependent variable.

2.3. Assessment Tools

To gather data, the researcher used a standardized Yoga Attitude Scale developed by Muchhal.^[9] The scale consisted of 30 questions, including 15 positive and 15 negative statements. The reliability of the scale was measured through two methods: The split-half method, which yielded a coefficient of reliability of 0.71, and the Spearman Brown method, which resulted in a reliability score of 0.83. Before administering the scale, the researcher explained its purpose and procedure to the subjects to ensure accurate responses.

2.4. Yoga Intervention Technique

The Yoga Intervention in this study followed the Common Yoga Protocol^[10] issued by the Ministry of Ayush. The intervention spanned 8 weeks, with sessions conducted 5 days a week. Each session lasted for 45 min. The common Yoga protocol, designed to promote holistic health, includes a series of practices such as loosening exercises, *Yogāsanas*, *Prāṇāyāma*, and *dhyāna*. This structured approach was implemented to assess its impact on the participants' physical and mental well-being over the designated period. The regular practice aimed to foster flexibility, strength, mental calmness, and overall wellness in alignment with Yogic principles.

3. ANALYSIS AND INTERPRETATION OF THE DATA

This study aimed to assess the attitude of male and female government school students towards Yoga through pre-test and post-test comparisons. Two main types of analyses were conducted: Descriptive analysis and comparative analysis, examining the shift in attitudes from the pre-test to post-test phase.

3.1. Descriptive Analysis

In this caption, data were analyzed with the help of frequency distribution of pre- and post-test. More obviously it was interpreted as

under: In Table 1 and pie charts of male and female pre and post test frequency:

Here is the pie chart representation of the data showing the pre-test and post-test frequencies for both male and female students across the categories of "Favorable," "Moderate," and "Unfavorable." Each chart visualizes the distribution of responses before and after the test.

This study aims to evaluate the change in attitudes toward Yoga among male and female government school students by comparing pre-test and post-test results. A total of 100 male and 100 female students were assessed using a standardized tool to categorize their attitudes into three levels: Favorable, moderate, and unfavorable. The data were analyzed using frequency distribution, and the shift in attitude was observed and interpreted accordingly.

In the pre-test phase, a majority of the male students (55%) had a favorable ATY. Post-test results showed a slight increase, with 62% of the male students expressing a favorable attitude. This 7% improvement indicates that the intervention, likely Yoga practice or awareness programs, positively influenced their perception. The number of male students with a moderate ATY decreased slightly from 38% in the pre-test to 33% in the post-test. This reduction suggests that some of the students with moderate views shifted toward a more favorable attitude. Furthermore, those with an unfavorable attitude decreased from 7% to 5% post-test, demonstrating a small but notable decline in negative perceptions of Yoga among male students.

In the pre-test phase, 50% of female students had a favorable ATY. This percentage increased to 61% post-test, representing an 11% rise in favorable attitudes, which indicates a more significant shift compared to male students. The number of female students with a moderate attitude remained fairly stable, changing only slightly from 30% in the pre-test to 32% post-test. However, a remarkable improvement was observed in the reduction of unfavorable attitudes among female students, which dropped from 20% to 7% post-test. This 13% decrease reflects a significant positive change in the perception of Yoga among female students, indicating that the intervention had a more substantial impact on female participants compared to their male counterparts.

When comparing male and female students, it is evident that both groups demonstrated a shift toward a more favorable ATY post-test. However, the magnitude of this shift was more pronounced among female students, who exhibited a larger increase in favorable attitudes and a more significant decrease in unfavorable attitudes than male students. The post-test results also show that female students, who started with a higher percentage of unfavorable attitudes, experienced a more dramatic improvement compared to male students.

3.2. Comparative Analysis

In this study, a comparative analysis was conducted to examine the ATY among male and female students of government schools which is shown in Table 2 and graph below. The focus was on testing the significance of changes in attitude between pre-test and post-test data, utilizing the "*t*" value for statistical analysis. This analysis reveals the differences in students' attitudes toward Yoga before and after intervention, highlighting the variations based on gender. The results are interpreted below.

The data for male students, with a sample size of 100, showed a notable shift in their ATY from the pre-test to the post-test. The mean value for the pre-test was 38.755, with a standard deviation (SD) of 4.67. After the intervention, the post-test mean increased to 45.087, with a reduced SD of 4.11. The calculated "*t*" value of 10.1784 indicates a statistically

significant difference between the pre-test and post-test results. Since the "*t*" value exceeds the critical threshold, it suggests that the improvement in ATY among male students is extremely statistically significant. This substantial difference implies that the intervention, such as Yoga training or awareness programs, had a positive impact on the male students' ATY, demonstrating increased receptivity and appreciation post-test.

Similarly, the data for female students, with a sample size of 100, also reflected a significant change in their ATY. The mean value in the pre-test was 33.091, with an SD of 4.09, which increased to a mean of 42.331 in the post-test, with an SD of 3.91. The "*t*" value for this group was found to be 16.3300, indicating an even greater statistical significance compared to the male group. The highly significant "*t*" value points to a considerable improvement in female students' attitudes after the intervention. The increase in the mean values, coupled with the extremely statistically significant "*t*" value, suggests that female students responded particularly well to the intervention, developing a stronger positive ATY in the post-test phase.

When comparing male and female students, it becomes clear that both groups exhibited significant improvements in their attitudes towards Yoga following the intervention. However, female students showed a more pronounced change, as indicated by their higher "*t*" value (16.3300) compared to the male students (10.1784). The greater shift in attitude among female students suggests that they may have been more influenced by the intervention or more receptive to the concepts of Yoga, leading to a steeper rise in their post-test scores.

4. DISCUSSION

The findings of this study indicate that both male and female government school students demonstrated a positive shift in their attitudes towards Yoga after the intervention. In the pre-test phase, the majority of male students exhibited a favorable ATY, which further improved post-test. The data revealed a slight increase in favorable attitudes, accompanied by a small reduction in moderate and unfavorable views. This suggests that the intervention, likely consisting of Yoga practice or awareness sessions, was successful in fostering a more positive perception among male students. Similarly, female students also showed a significant improvement in their attitudes towards Yoga. Pre-test results indicated that half of the female students had a favorable attitude, which increased considerably post-test. Notably, female students exhibited a larger decrease in unfavorable attitudes compared to their male counterparts, suggesting that the intervention had a more profound effect on them.

The comparative analysis using the "*t*" test revealed that the changes in attitudes were statistically significant for both genders. Male students experienced a marked improvement in their attitude, with an increase in mean scores and a statistically significant "*t*" value. The reduced SD in the post-test phase for males implies a more consistent positive attitude across the group. On the other hand, female students exhibited an even greater improvement, with a higher mean increase and a more pronounced "*t*" value, indicating a stronger response to the intervention. These findings align with previous research suggesting that females may be more receptive to Yoga interventions due to greater openness to its physical and mental benefits.^[11]

Furthermore, the larger shift in female students' attitudes could also be linked to the social and psychological factors that influence gender differences in health-related behaviors.^[12] Previous studies have highlighted that women, in general, are more likely to engage in activities that promote mental well-being, such as Yoga,

which could explain the more substantial improvement in their attitudes.^[13]

The intervention had a positive impact on both male and female students' attitudes towards Yoga, with females demonstrating a more significant change. These results underscore the importance of gender-sensitive approaches in promoting Yoga and similar health-related activities in school settings.

5. CONCLUSION

The study aimed to assess the impact of an intervention, likely a Yoga awareness or practice program, on the attitudes of male and female government school students toward Yoga. The results clearly indicate that both groups showed a positive shift in their attitudes post-intervention. For male students, there was a noticeable improvement in the number of students expressing a favorable attitude, while those with an unfavorable perspective reduced slightly. The intervention proved effective, as a shift from moderate to favorable attitudes was observed.

Similarly, female students also exhibited a significant change, with a larger percentage moving toward a favorable view of Yoga and a remarkable reduction in those with an unfavorable attitude. The improvement was more pronounced among female students, who not only showed a higher increase in favorable perceptions but also a greater decline in negative attitudes compared to their male counterparts.

In conclusion, the intervention had a positive effect on both male and female students, though female students demonstrated a more dramatic shift. This suggests that female students may have been more receptive to the benefits of Yoga, resulting in a stronger positive change in their attitudes.

6. ACKNOWLEDGMENT

Nil.

7. AUTHORS' CONTRIBUTIONS

All the authors contributed equally to the design and execution of the article.

8. FUNDING

Nil.

9. ETHICAL APPROVALS

This study was approved by the Chandigarh Yog Institutional Ethical Committee (CYIEC) under the approval number EC/npwdInst/2023/2499.

10. CONFLICTS OF INTEREST

Nil.

11. DATA AVAILABILITY

This is an original manuscript and all data are available for only review purposes from principal investigators.

12. PUBLISHERS NOTE

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REFERENCES

1. Saraswati S. Asana Prāṇāyāma Mudra Bandha. New Delhi: Yoga Publications Trust; 2014.
2. Khalsa SB. Yoga in schools: A comprehensive review of the evidence for its impact on student health and performance. *Int J Yoga* 2013;6:28-35.
3. Brown KW, Ryan RM. The benefits of being present: Mindfulness and its role in psychological well-being. *J Pers Soc Psychol* 2003;84:822-48.
4. Khalsa SB, Hickey-Schultz L, Cohen D, Steiner N, Cope S. Evaluation of the mental health benefits of Yoga in a secondary school: A preliminary randomized controlled trial. *J Behav Health Serv Res* 2012;39:80-90.
5. Friedman M. The impact of mindfulness-based practices on adolescents' stress management: A review of the literature. *Int J Child Adolesc Health* 2016;9:73-8.
6. Cramer H, Lauche R, Langhorst J, Dobos G. Yoga for improving health-related quality of life, mental health and cancer symptoms in women diagnosed with breast cancer. *Cochrane Database Syst Rev* 2013;2013:CD010924.
7. Ranganathan V, Ramakrishnan AG, Brown RS. Cognitive effects of Yoga practice in children. *Child Dev* 2004;75:961-70.
8. Benson H, Arns PR, Micozzi MS. *The Relaxation Response: How to Reduce Stress and Restore Balance in Your Life*. New York: HarperCollins; 2012.
9. Muchhal MK. *Yoga Attitude Scale*. Agra, Uttar Pradesh, India: National Psychological Corporation; 2009.
10. Ministry of Ayush. *Common Yoga Protocol*. Government of India; 2023. Available from: <https://yoga.ayush.gov.in> [Last accessed on 2024 Aug 12].
11. Harvard Health Publishing. *Yoga for Better Mental Health*. Harvard Medical School; 2020. Available from: <https://www.health.harvard.edu/staying-healthy/yoga-for-better-mental-health> [Last accessed on 2024 Aug 12].
12. Husain A, Khan S. Gender differences in health-related behaviors and the role of Yoga interventions. *J Health Psychol Behav Med* 2022;14:130-45.
13. Sengupta P. Health impacts of Yoga and Pranayama: A state-of-the-art review. *Int J Prev Med* 2012;3:444-58.

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Table 1: Frequency of male and female government school students on various levels of attitude toward Yoga. (n=100 each)

LYAS	Male students (n=100)		Female students (n=100)	
	Pre-test frequency	Post-test frequency	Pre-test frequency	Post-test frequency
Favorable	55	62	50	61
Moderate	38	33	30	32
Unfavorable	7	5	20	7
Total	100	100	100	100

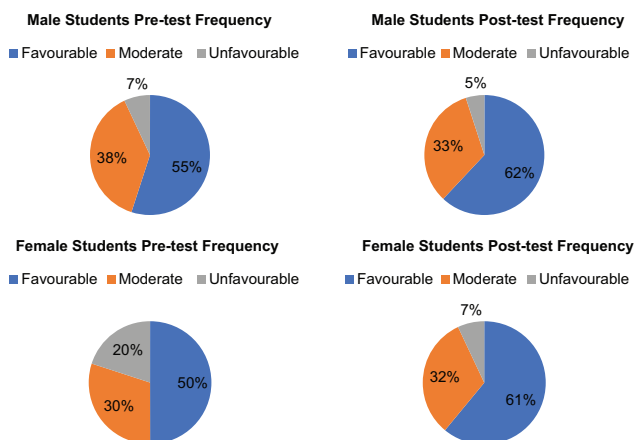


Table 2: The significance of difference between male and female government school students on attitude toward Yoga. (n=100 each)

Pre- and post-test data of male students of government school						
Test	Pre-test		Post-test		“t” value	Level of significance
	Mean	SD	Mean	SD		
ATY	38.755	4.67	45.087	4.11	10.1784	Extremely statistically significant.

Pre- and post-test data of female students of government school						
Test	Pre-test		Post-test		“t” value	Level of significance
	Mean	SD	Mean	SD		
ATY	33.091	4.09	42.331	3.91	16.3300	Extremely statistically significant.

ATY: Attitude toward Yoga, SD: Standard deviation

