



Effect of Yoga Training on Mental Health of Residential School Boys

GIRISHA S.

Research Scholar, University College of Physical Education
Bangalore University, Jnananbharathi, Bengaluru-560 056, Karnataka State, India.

and

Dr. RAMESH H. KITTUR

Assistant Professor, University College of Physical Education,
Bangalore University, Bengaluru 560 056.

ABSTRACT

The present study aimed to assess the impact of yoga training, incorporating Pranayama and meditation, on the mental health of residential school boys. A total of 40 boys from a residential school in Bengaluru Rural District were randomly assigned into two groups: Experimental Group-X (n=20), which underwent Yoga Training combined with pranayama and meditation (YTCPM) and Control Group-Y (n=20), which followed their routine schedule without yoga intervention. The Mental Health Scale developed by Jagadish and A.K. Srivastava was used to collect pre-test scores to assess the mental health status of both groups. Group-X participated in the yoga intervention -comprising Surya Namaskar, various asanas, Pranayama and meditation - six days a week for twelve weeks. Post-test scores were collected at the end of the training period. The data were analyzed using SPSS and MS Excel. Both paired 't' test and independent sample 't' test were applied to measure the significance of the differences at 0.05 and 0.01 levels of significance. The findings revealed a significant improvement in the mental health of residential school boys who underwent systematic yoga training, compared to the control group. The study confirmed that regular practice of yoga, Pranayama along with meditation significantly enhances the mental health of residential school boys, underlining the importance of incorporating yoga programmes in residential educational institutions. The study emphasizes the importance of incorporating yoga, pranayama and meditation into residential school curricula to enhance students' mental health. Regular yoga practice serves as an effective tool for reducing stress and improving overall well-being among school children.

Keywords: Yoga Training, Pranayama, Meditation, Mental Health, Residential School Boys

1. INTRODUCTION

Mental health has emerged as a crucial area of concern in contemporary educational settings, especially among school-aged children. The transition from childhood to adolescence is marked by numerous emotional, social and academic challenges, often exacerbated in residential school settings where students live away from their families. These challenges, if not addressed, may lead to stress, anxiety, emotional instability and poor academic performance (Kaur, 2016). Residential school boys, in particular, may face added pressures of adjustment, discipline, homesickness and academic competitiveness, which can significantly affect their mental well-being.

In the Indian context, yoga has long been recognized not only as a physical discipline but also as a mental and spiritual practice that fosters harmony between the body and mind. Yoga, which encompasses asanas (physical postures), pranayama (breathing techniques) and dhyana (meditation), has been widely acknowledged as an effective intervention to improve mental health by reducing anxiety, enhancing emotional regulation and promoting psychological well-being (Telles et al., 2012). The National Curriculum Framework (NCF-2005) and the National Education Policy (NEP-2020) emphasize the integration of yoga in schools as a means of holistic development and mental well-being.

Numerous Indian studies have shown that regular yoga practice can significantly improve mental health indicators among adolescents. For instance, a study by Gupta and Sharma (2014) found that school students who practiced yoga showed better stress management and emotional stability compared to non-practitioners. Similarly, Deshpande and Nagendra (2009) reported that yoga-based programs in schools led to improved cognitive functioning and reduced levels of anxiety and depression among students. Given the structured and disciplined environment in residential schools, yoga can serve as an ideal intervention to create a positive and supportive mental health framework.

The current study aims to explore the effect of a structured yoga training programme, incorporating Surya Namaskar, selected asanas, pranayama and meditation, on the mental health of residential school boys in Bengaluru Rural District. By using the standardized Mental Health Scale developed by Jagadish and A.K. Srivastava, this study seeks to empirically assess the changes in mental health status before and after the yoga intervention. The outcome of this research is expected to contribute to the growing body of evidence supporting the inclusion of yoga in school curricula, especially in residential setups where the need for psychosocial support is more pronounced.

2. SIGNIFICANCE OF THE STUDY

This study holds great significance as it highlights the positive impact of yoga training on the mental health of residential school boys. Children in residential schools often face emotional challenges due to separation from their families, strict routines and academic pressure. These factors can affect their mental well-being, making it essential to find effective and natural ways to support their emotional and psychological health. Yoga, which includes physical postures, breathing techniques (pranayama) and meditation, offers a holistic approach to managing stress, improving emotional balance and enhancing overall mental health. By showing that regular yoga practice leads to significant improvements in mental health, this study supports the idea of including yoga programs in school routines. It also provides educators, school administrators and policymakers with evidence to promote yoga as a valuable tool for supporting the mental well-being of students, especially in residential school settings.

3. REVIEW OF RELATED LITERATURE

Yoga has increasingly been recognized as a valuable practice for enhancing mental health and well-being, especially among children and adolescents. Several studies conducted both in India and internationally have explored the psychological and physical benefits of yoga, pranayama and meditation for school-aged youth, highlighting its positive impact on emotional regulation, stress reduction and cognitive functioning.

For example, Rohtash (2024) found that yoga significantly reduced anxiety, improved self-esteem and enhanced coping mechanisms among secondary school students. This study emphasized yoga's potential in building mental resilience and emotional regulation. Similarly, Verma et al. (2014) reported notable improvements in memory and mental ability in adolescent residential school children who practiced yoga, compared to a control group that showed no changes.

Sharma and Rawat (2023) conducted a randomized control trial with adolescents aged 10 to 15 years, demonstrating that regular yogic practices improved body posture and correlated positively with both physical and mental health indicators. Their study confirmed that yoga from an early age can help develop healthy postural habits linked to better emotional well-being.

Internationally, Hagen, Skjelstad and Nayar (2023) examined the effect of yoga on relaxation and stress among young people in Norway. Their qualitative research highlighted that yoga increased students' awareness of the importance of relaxation, positively influencing their mental health and overall sense of well-being. Furthermore, Khunti et al. (2023) reviewed 21 randomized control trials and concluded that yoga interventions in schools are promising as both preventive and therapeutic measures for children's mental health, although many studies had limitations such as small sample sizes.

In India, Pandey and Dalal (2020) studied the effects of nadi-shodhan pranayama and yoga-nidra on young adults' emotional maturity and mental health. Their findings showed significant improvements, supporting the beneficial role of specific yogic breathing and relaxation techniques on mental and emotional development.

While these studies collectively affirm the positive effects of yoga on mental and physical health among young people, there remains a research gap regarding the impact of combined yoga practices-including asanas, pranayama and meditation-specifically on residential school boys in India. Residential school students often face unique psychological and environmental challenges due to living away from their families and focused studies on this group are limited. Therefore, the present study aims to fill this gap by investigating how a structured yoga training program influences the mental health and breath-holding capacity of boys in residential schools, contributing valuable data to this important but under-researched population.

4. STATEMENT OF THE PROBLEM

The topic selected for the present study is **“Effect of Yoga Training on Mental Health of Residential School Boys”**

5. OBJECTIVE OF STUDY

The objective of examination is to know the effect of yoga training with Pranayama on mental health of residential school boys.

6. HYPOTHESES

1. There is no significant difference in the pre-test and post-test scores of Mental Health among residential school boys in the control group (CG) and the experimental group (YTCP).
2. There is no significant difference in the Mental Health of residential school boys between the control group and the experimental group in the pre-test and post-test scores.

7. METHODOLOGY

The present study aimed to assess the impact of yoga training, incorporating Pranayama and meditation, on the mental health of residential school boys. A total of 40 boys from a residential school in Bengaluru Rural District were randomly assigned into two groups: Experimental Group-X (n=20), which underwent Yoga Training combined with pranayama and meditation (YTCPM) and Control Group-Y (n=20), which followed their routine schedule without yoga intervention. The Mental Health Scale developed by Jagadish and A.K. Srivastava was used to collect pre-test scores to assess the mental health status of both groups. Group-X participated in the yoga intervention -comprising Surya Namaskar, various asanas, Pranayama and meditation - six days a week for twelve weeks. Post-test scores were collected at the end of the training period. The data were analyzed using SPSS and MS Excel. Both paired 't' test and independent sample 't' test were applied to measure the significance of the differences at 0.05 and 0.01 levels of significance.

8. DATA ANALYSIS

The analysis of the data gathered before and after the YTCP training period, focusing on the breath-holding capacity of boys from residential schools in the experimental (YTCP) and control (CG) groups, is presented below.

Table-1: Pre and Post Test Scores on Breath Holding Capacity of Control and Experimental Groups through paired 't' test

Group	Post	Mean Scores	SD	Std. Error Mean	't' and 'P' value	Level of Significance
CG Group (N=20)	Pre	137.300	11.535	2.579	1.13 [P=0.272]	NS
	Post	138.600	12.910	2.886		
YTCP Group (N=20)	Pre	134.600	14.217	3.179	4.820 [P=0.000]	**
	Post	148.750	13.337	2.982		

^{NS} indicates Not Significant; ** shows significant at 0.01 level (N=20; df = 19, 2.88)

The data analysis aimed to assess the effectiveness of the Yoga Training Combined with Pranayama and Meditation (YTCPM) on the breath-holding capacity of residential school boys. A paired sample 't' test was conducted separately for both the control group (CG) and the experimental group (YTCP) to compare their pre- and post-test mean scores.

In the control group (CG), the mean pre-test score for breath-holding capacity was 137.30 seconds and the post-test mean slightly increased to 138.60 seconds. The computed 't' value was 1.13 with a p-value of 0.272, which is not statistically significant at the 0.05 level. This indicates that there was no meaningful improvement in breath-holding capacity among students in the control group, who did not receive the yoga training.

In contrast, the experimental group (YTCP) showed a notable improvement. The mean pre-test score was 134.60 seconds, which significantly increased to 148.75 seconds after the 12-week yoga intervention. The paired 't' test result was 4.820 with a p-value of 0.000, which is highly significant at the 0.01 level. This clearly indicates that the yoga training, which included pranayama and meditation, had a positive and statistically significant effect on enhancing the breath-holding capacity of students in the experimental group.

Overall, the findings suggest that the systematic practice of yoga combined with pranayama and meditation greatly improves respiratory endurance and control among residential school boys. This improvement reflects the physiological benefits of yoga practices, particularly pranayama, which focuses on controlled breathing and lung capacity enhancement.

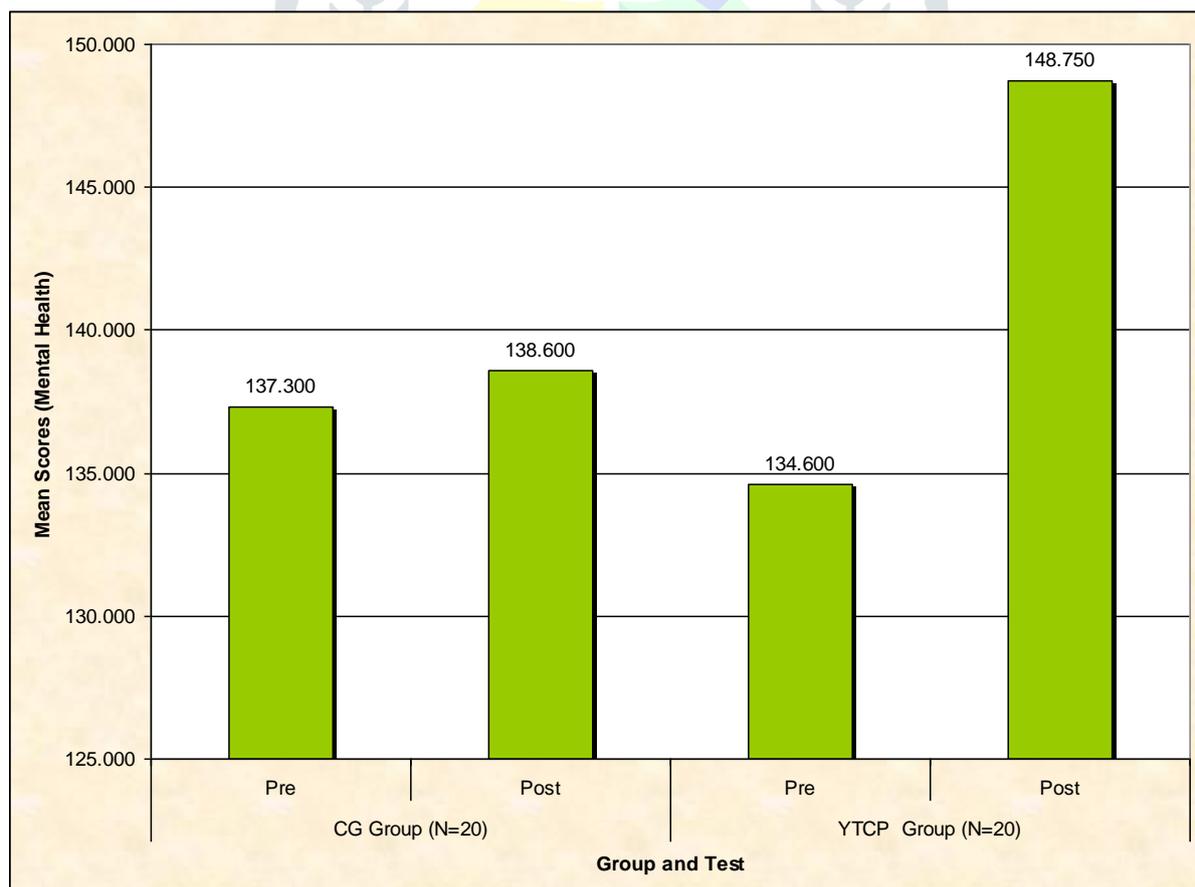


Fig.1: Assessment of Mental Health between of pre and post tests scores of residential school boys in control and experimental groups.

Table-2: Pre and Post Test Scores of Mental Health between Control and Experimental Groups through independent 't' test

Test	Groups	Mean Scores	SD	Std. Error Mean	't' and 'P' value	Level of Significance
Pre	CG Group (N=20)	137.300	11.535	2.579	0.66 (P=0.514)	NS
	YTCP Group (N=20)	134.600	14.217	3.179		
Post	CG Group (N=20)	138.600	12.910	2.886	2.44 (P=0.019)	*
	YTCP Group (N=20)	148.750	13.337	2.982		

^{NS} explains Not Significant; ** shows significant at 0.05 level (df = 38, 2.02).

Table-2 presents the results of an independent sample 't' test conducted to compare the pre- and post-test scores of mental health between the control group (CG) and the experimental group (YTCP) comprising residential school boys.

In the pre-test, the control group had a mean mental health score of 137.30 with a standard deviation of 11.535, while the experimental (YTCP) group had a mean score of 134.60 with a standard deviation of 14.217. The 't' value was 0.66 with a p-value of 0.514, which is not significant at the 0.05 level. This indicates that before the intervention, there was no statistically significant difference in the mental health status between the two groups. In other words, both groups were almost equal in their mental health levels before the yoga training began.

In the post-test, the control group showed a slight increase in their mental health score to 138.60, whereas the experimental group (which underwent Yoga Training with Pranayama and Meditation) showed a notable increase to 148.75. The calculated 't' value was 2.44 with a p-value of 0.019, which is statistically significant at the 0.05 level. This suggests that the experimental group experienced a significant improvement in mental health after the yoga intervention when compared to the control group, which did not undergo any yoga training.

These findings provide strong evidence that the YTCP intervention-incorporating yoga, pranayama and meditation-had a positive and significant impact on enhancing the mental health of residential school boys. The improved post-test scores in the experimental group highlight the effectiveness of the yoga-based program in promoting emotional well-being, reducing stress and fostering mental balance among students living in residential school environments.

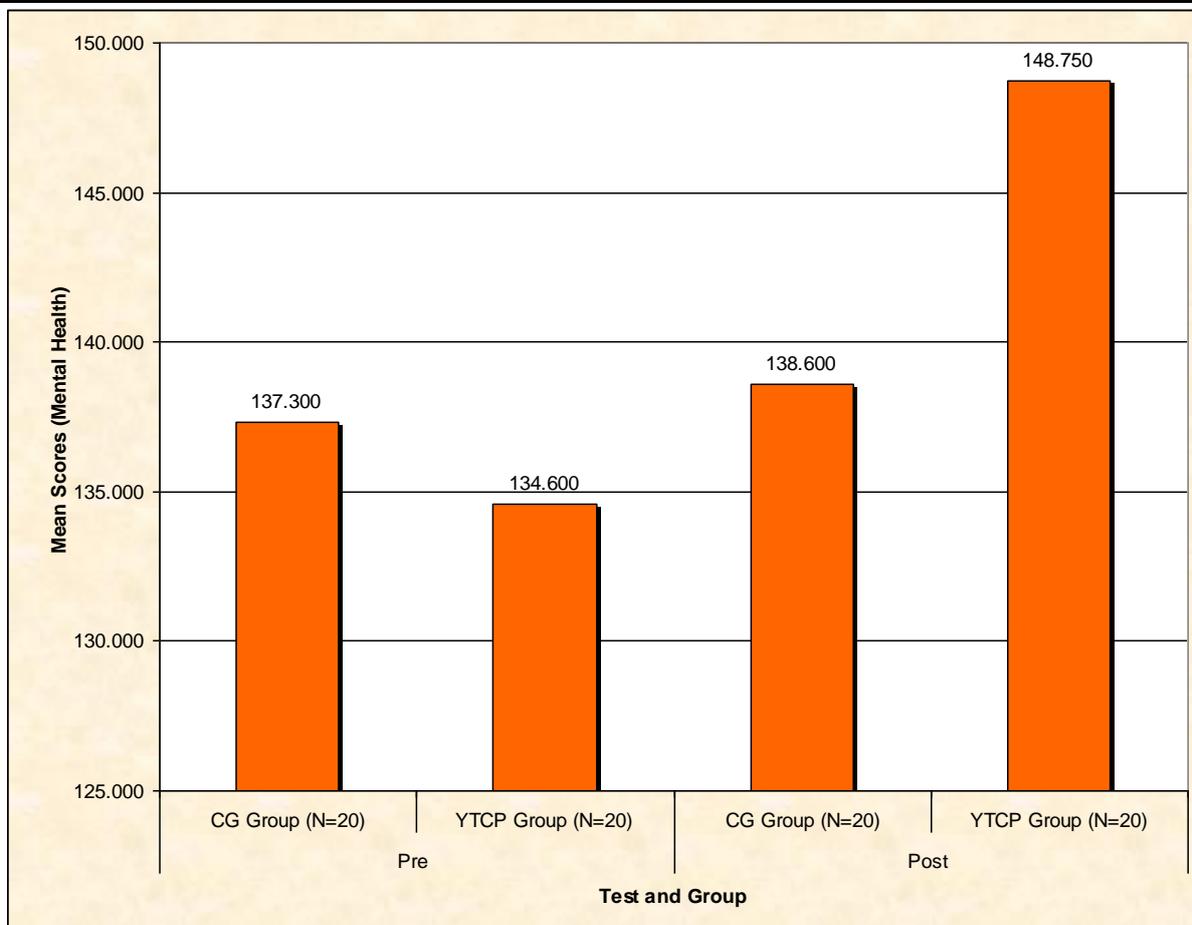


Fig.2: Assessment of pre-test and post-test scores of Mental Health of residential school boys between control and experimental groups.

9. DISCUSSION ON FINDINGS

The findings of this study clearly indicate that the 12-week Yoga Training Combined with Pranayama and Meditation (YTCPM) had a positive and significant effect on both the mental health and breath-holding capacity of residential school boys. The pre- and post-test comparisons showed no significant difference in the control group, suggesting that regular school routines alone were not effective in enhancing these aspects of students' well-being. In contrast, the experimental group exhibited statistically significant improvements in both breath-holding capacity and mental health, as demonstrated by the paired and independent 't' test results.

These results are in line with previous Indian studies that have highlighted the benefits of yoga for adolescents in managing stress and improving emotional stability (Deshpande & Nagendra, 2009; Gupta & Sharma, 2014). The improvement in breath-holding capacity is directly linked to the consistent practice of pranayama, which enhances lung capacity, respiratory control and endurance. Similarly, the mental health improvements reflect the calming and stabilizing effect of yoga and meditation on the nervous system, helping reduce anxiety and emotional disturbances.

The study's findings underscore the importance of incorporating structured yoga programs into school settings, particularly residential schools where students face unique psychological and emotional challenges due to separation from home and greater academic and social pressures.

10. CONCLUSION

The present study concludes that a structured yoga training program that includes asanas, pranayama and meditation significantly improves both the physical (breath-holding capacity) and psychological (mental health) well-being of residential school boys. The experimental group, which underwent the YTCPM intervention for 12 weeks, showed notable improvements in both areas compared to the control group, which did not receive any yoga training. These results confirm that regular and guided practice of yoga is an effective tool for enhancing students' mental health and respiratory efficiency. It also highlights the value of yoga as a non-pharmacological, cost-effective and easily implementable approach to promoting holistic health among school-aged children, particularly in residential educational environments.

11. IMPLICATIONS AND SUGGESTIONS

The findings of this study have several important implications for educational institutions, particularly residential schools:

- Yoga, including pranayama and meditation, should be integrated into the daily routine or curriculum of residential schools to promote mental wellness and physical fitness.
- Schools should provide proper training to physical education teachers and staff so they can effectively guide students in yoga practices.
- As stress and emotional imbalance are increasingly common among school children, especially in boarding environments, yoga can serve as a preventive and therapeutic approach.
- Educational policies should formally recognize the value of yoga and provide support for its implementation in all school types, including funding for yoga instructors and space allocation.
- Future studies can expand the sample size and explore long-term effects of yoga on various dimensions of student health, including academic performance, emotional intelligence and social behavior.

In summary, this study reaffirms the holistic benefits of yoga and advocates for its wider adoption in educational institutions to nurture healthier, happier and more resilient students.

REFERENCES

- Deshpande, S., & Nagendra, H. R. (2009). A randomized control trial of the effect of yoga on mental health in secondary school children. *International Journal of Yoga*, 2(1), 26–30. <https://doi.org/10.4103/0973-6131.53838>
- Gupta, M., & Sharma, S. (2014). Impact of yoga on mental health of school students. *Indian Journal of Health and Wellbeing*, 5(4), 435–438.
- Ingunn Hagen; Solbjørg Skjelstad; and Usha Sidana Nayar (May, 2023), Promoting Mental Health and Wellbeing in Schools: The Impact of Yoga on Young People's Relaxation and Stress Levels, *Front. Psychol.*, 14: 1083028. doi: 10.3389/fpsyg.2023.1083028
- Kaur, M. (2016). Mental health issues among school children: An overview. *International Journal of Applied Research*, 2(5), 258–260.

- Khunti, Kirti; Sadie Boniface; Emma Norris; Cesar M De Oliveira; and Nicola Shelton (March, 2023), The effects of yoga on mental health in school-aged children: A Systematic Review and Narrative Synthesis of Randomised Control Trials, *Clinical Child Psychology and Psychiatry*, 28(3), 1217–1238.
- Ministry of Education, Government of India. (2020). National Education Policy 2020. Retrieved from <https://www.education.gov.in>
- National Council of Educational Research and Training (NCERT). (2005). National Curriculum Framework 2005. New Delhi: NCERT.
- Pandey, Aarsh Ojas Parasar and Dalal, Simran (2020), Effects of Nadi-shodhan Pranayama and Yoga-nidra on Emotional Maturity and Mental Health of Young Adults, *The International Journal of Indian Psychology*, 8(4): 1657-1668. <http://www.ijip.in>.
- Rohtash (Oct., 2024), Impact of Yoga on the Psychology of Secondary School Students, *SEEJPH*, XXV, 3015-3020.
- Sharma, Sachi and Rawat, Vikas (Dec., 2023), Effect of Yogic Practices on Body Posture and its Correlation with Physical and Mental Health in Adolescents, *Indian J Med Spec.*, 14, 216-24.
- Telles, S., Singh, N., & Balkrishna, A. (2012). Managing mental health disorders resulting from stress through yoga: A review. *Depression Research and Treatment*, 2012, Article ID 401513. <https://doi.org/10.1155/2012/401513>
- Verma, Anita; Sanjay Uddhav Shete, Ghanshyam Singh Thakur, Dattatraya Devarao Kulkarni & Ranjit Singh Bhogal (2014), The Effect of Yoga Practices on Cognitive Development in Rural Residential School Children in India, *National Journal of Laboratory Medicine*, 3(3): 15-19.

