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EFFECTIVENESS OF PRANAYAMA ON MENTAL HEALTH OF SCHOOL STUDENTS IN INDIA

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Abstract

Mental health is an important part of overall growth and well-being of school students. Recent times have witnessed the emergence of many psychological problems like stress, anxiety, depression etc., which are primarily because of growing academic pressures, changes in lifestyle, social demands and technological influence on children and adolescents. These issues have led to the realization of importance of implementing effective and convenient ways of dealing with these problems to enhance the mental well-being of school students. Pranayama, an important aspect of yoga that involves conscious control of breathing, has been proved to be an effective practice in promoting physical and psychological well-being. Ancient principles of yogic philosophy and modern science researches have supported the positive effects of pranayama on emotional regulation, reduction of psychological distress, improvement of concentration abilities and enhancement of mental well-being.

The results of the current research showed that practicing pranayama leads to reduction in levels of stress, anxiety and depression while enhancing the well-being of emotions, concentration, academic success, quality of sleep and psychosocial well-being of school students. Practicing pranayama has proved to be an easy, safe, affordable and non-medicinal way that can be included in school health programs. Therefore, it can be concluded that practicing pranayama on regular basis will greatly help in the holistic development and mental well-being of school students.

Keywords: Pranayama, Mental Health, School Students, Yoga, Stress, Anxiety, Emotional Well-being, Academic Performance, Sleep Quality.

I. INTRODUCTION

Mental health is one of the key elements of people's overall health and well-being that allows them to use their capabilities, cope with stress, learn and develop, and be productive members of society. Children who attend school are at the age where they undergo physical, emotional, cognitive, and social development simultaneously. In recent years, more and more cases of school students' mental issues have been recorded. This is associated with various aspects of studying, such as increased academic pressure, competitiveness, extensive usage of screens and social media, family and personal expectations, and changing lifestyle that lead to stress, anxiety, emotional imbalance, lack of concentration, and many other psychological issues that negatively affect the academic performance of students.

The growing rate of the problem of mental health of school students is becoming an important public health issue in India. Even though today the awareness about the necessity to work with the psychological well-being of students is spreading among the school staff, there is still a need to pay more attention to preventive and non-pharmacological methods. The need for effective, affordable, culturally accepted, and sustainable interventions that help children cope with psychological issues and promote their development exists. Traditional knowledge of India such as yoga contains promising strategies to address the problem and to enhance the psychological well-being of the target population.

One of the most important components of yoga practice is pranayama, which means the control and regulation of breathing. According to yogic classical texts, pranayama promotes the increase of the flow of prana, which provides physical, emotional, and mental harmony of the body. According to modern science, there are also benefits of pranayama from the physiological perspective. Research shows that regular practice of the technique can positively impact the activity of autonomic nervous system, decrease physiological reactions of stress, improve emotional regulation, enhance attention, and promote psychological well-being of a person. Such simple techniques of breathing as Anulom Vilom, Nadi Shodhana, Bhramari, and Ujjayi have been studied extensively in relation to stress reduction, anxiety management, attention enhancement, and emotional stability of children and teenagers.

Schools are an appropriate setting for teaching pranayama as it is easy for students to learn and practice these techniques without any specific expensive equipment or facilities. Pranayama will not only contribute to the improvement of the state of mental health of the students but may also positively influence their concentration, emotional stability, behavior in the classroom, and academic performance. The introduction of pranayama practice in school programs is consistent with the principles of holistic education and healthy lifestyle promotion in young learners of India.

This study aims to examine the effect of pranayama on the state of mental health of school students in India. The study uses secondary sources of information to analyze the available literature on the role of pranayama in reducing stress. The present literature review is devoted to the examination of the relationship between pranayama and different aspects of mental health such as stress, anxiety, depression, emotional well-being, attention, and psychological resilience.

Objectives of the Paper

- To examine the significance of pranayama in promoting mental health among school students.
- To review the existing literature on the effectiveness of pranayama for improving psychological well-being.
- To discuss the potential role of pranayama as a school-based intervention for enhancing the mental health of students in India.

II. LITERATURE REVIEW

Pradhan and Pramanik (2024) studied the impact of a 12-week-long yoga programme on stress and anxiety of school-going children. This study was carried out to find out the impact of practicing yoga on the psychological well-being of the children. According to the authors, those children who underwent yoga practice for 12 weeks showed a considerable decrease in stress and anxiety levels compared to what they used to experience before undergoing this programme. The authors claimed that yoga helped children learn to control their emotions and stay relaxed while coping with different kinds of academic and social pressure.

Pandey (2025) examined the impact of yoga on the mental well-being of Indian youth through an extensive literature review. It was discovered in the course of the study that the practice of yoga had a positive impact on the emotional, psychological and behavioral well-being of young people. Yoga was seen to have positive implications for reducing stress, anxiety and depression, besides making one emotionally stable, confident, attentive and resilient. The author stressed that yoga was a holistic approach to the promotion of mental well-being without the use of any drugs, since it involved the mind-body connection. Moreover, yoga should be made a part of school life as a means of improving psychological well-being of Indian youth.

KV (2020) conducted research into the efficacy of pranayama in stress reduction among adolescents (aged 12-17 years) studying in selected high schools in Mangalore. The purpose of this study was to analyze the effect of practicing pranayama among adolescents suffering from academic and emotional stress. The results of the study showed that those participants who practiced pranayama had visible reduction in stress. The researchers established that controlled breathing exercises helped in relaxing, emotional regulation and coping with stressful events. It can be concluded that pranayama was a simple, harmless and affordable intervention strategy which could be successfully used to enhance adolescents' mental health and promote their psychological development.

Kumar and Kumar (2026) explored the effectiveness of pranayama practice in increasing psychosocial well-being of adolescents. The purpose of the research was to examine the impact of regular pranayama practice on different psychosocial indicators such as emotional stability, self-esteem, social skills and psychological well-being. The results of the study showed that there was a significant improvement in psychosocial well-being of adolescents who practiced pranayama regularly compared to those who did not practice it. The authors have established that controlled breathing exercises helped in emotional regulation, decrease in psychological distress and in formation of positive social behavior.

Joseph et al. (2017) investigated the effectiveness of pranayama in alleviating academic stress amongst tenth-standard students in some selected high schools in Chennai. In this study, attention was paid to students who suffered from significant stress caused by board examinations and the heightened demands of education. It is reported that the students who practiced pranayama showed decreased academic stress after taking part in this activity. Pranayama as a way of breathing control made students more relaxed and emotionally stable and helped to cope with pressure associated with the examination process. Joseph, Beulah, Vijayasamundeeswari, and Geetha (2017) suggest that pranayama is an effective, affordable, and easy way to reduce stress and improve students' well-being and adaptation to school life.

Kushwaha et al. (2024) carried out a randomized controlled study aimed at evaluating the effect of pranayama and meditation on the level of emotional intelligence of undergraduate students. The research explored the possibility of improving such components of emotional intelligence as awareness of emotions, ability to regulate emotions, empathy and interpersonal relationships with the help of yoga practice. As the result of this study, it is shown that there were significantly more improvements in the level of emotional intelligence in the intervention group than in the control group. Kushwaha, Thapliyal, Sharma, and Singh (2024) believe that such yoga practices as pranayama and meditation improved the emotional control and self-awareness of people and helped to manage stressful situations.

III. RESEARCH METHODOLOGY

The research study followed qualitative research methodology based on the use of secondary data. Data pertaining to the topic was gathered from research articles, journals, books, reports and databases associated with pranayama, yoga and mental health. This literature was analyzed and interpreted in order to comprehend the efficacy of pranayama in improving mental health of school-going students.

IV. EFFECTIVENESS OF PRANAYAMA ON MENTAL HEALTH OF SCHOOL STUDENTS

Pranayama is one of the yoga practices that have been found to be very effective in ensuring the mental health of the individual. This is achieved through the conscious regulation of breathing whereby there is stimulation of the autonomic nervous system and also cognitive enhancement. There are reduced cases of psychological disorders among children and adolescents due to this practice. The subsequent sections explain how pranayama ensures the mental health of the school-going individuals through its various dimensions.

➤ Effect of Pranayama on Stress Management

Stress is becoming a common problem faced by the students of schools because of pressure in academics, exams, peer competition, family expectations, and changing lifestyles. Stress, if it persists for a long period of time, may result in an imbalance of emotions and concentration in students along with their academic performance. Pranayama is a natural way of stress reduction as it helps in calming the body and mind both.

The practice of regulated breathing activates the parasympathetic nervous system in the body, which leads to the reduction in physical stress reactions like increased heart rate and the secretion of cortisol. Slow breathing leads to emotional control and relaxation.

➤ **Effect of Pranayama on Anxiety Reduction**

Anxiety is one of the mental illnesses that students suffer from often. This could be due to exams, friendships, failure fears, or the inability to know the future goals in academia. Anxiety disorders will hinder studies, decision-making, and interaction skills.

Pranayama aids in relaxation through deep breathing. The breathing exercises bring an end to too much mental activity and emotional disturbances. Exercises like Anulom Vilom, Nadi Shodhana, and Bhramari Pranayama are specifically known for their effects on soothing the mind. This makes it easy for learners to cope with anxiety and become confident in academics.

➤ **Effect of Pranayama on Depression and Mood Regulation**

The signs of depression that can be experienced by teenagers may include sadness, lack of motivation, irritation, disinterest in hobbies, and lack of self-confidence. If not treated properly, these signs can influence the education process and the quality of life in general.

Pranayama helps with positive mood management through relaxation, better flow of oxygen into the brain and increased emotional stability. Breathing techniques promote mindfulness and awareness which can assist students to stop thinking negatively and stay emotionally stable. Even though pranayama cannot replace medical treatment, it can be a good complementary technique for managing emotional stability.

➤ **Effect of Pranayama on Emotional Well-being**

Emotional wellness can be defined as the capacity to recognize, express, and regulate emotions appropriately. Emotional instability in adolescents arises from the numerous changes that occur during adolescence. For proper development, it is vital to have emotional resilience in order to cope with these changes.

Pranayama promotes emotional well-being through cultivating calmness and self-control. This way, students will be able to think before acting in response to stressful events. Pranayama fosters good emotions like confidence, patience, and optimism among others. This leads to better interpersonal relations and improved adjustment.

➤ **Effect of Pranayama on Concentration and Academic Performance**

Acquisition of knowledge entails a focused state of mind, memory, and clarity of thought. However, such negative factors as stress, anxiety, and emotional instability have the capacity to affect a student's ability to focus and achieve good academic performance.

Pranayama helps students to focus through increasing their mental alertness and minimizing their distractions. Proper breathing increases the level of oxygen reaching the brain. This means that students who engage in pranayama will benefit from a focused mind that will aid in academic achievement.

➤ **Effect of Pranayama on Sleep Quality**

Adequate sleep is essential for healthy physical and psychological development. Many school students experience sleep disturbances because of academic pressure, excessive screen time, and emotional stress. Poor sleep quality is closely associated with reduced concentration, mood disturbances, and lower academic achievement.

Pranayama promotes restful sleep by relaxing both the body and mind. Slow breathing techniques reduce physiological arousal and prepare the nervous system for restful sleep. Regular practice before bedtime may help students fall asleep more easily, improve sleep quality, and experience greater mental freshness during the day. Improved sleep further enhances emotional stability, learning capacity, and overall psychological well-being.

Pranayama provides a holistic approach to improving the mental health of school students by addressing multiple dimensions of psychological well-being simultaneously. Through regular breathing practices, students may experience lower levels of stress and anxiety, improved emotional regulation, enhanced concentration, better sleep quality, and greater resilience in coping with academic and social challenges. As a simple, cost-effective, and culturally relevant yogic practice, pranayama can be incorporated into school health programmes to support the holistic development of children and adolescents. While further research is needed to strengthen the evidence base, the existing literature suggests that pranayama is a promising strategy for promoting positive mental health among school students in India.

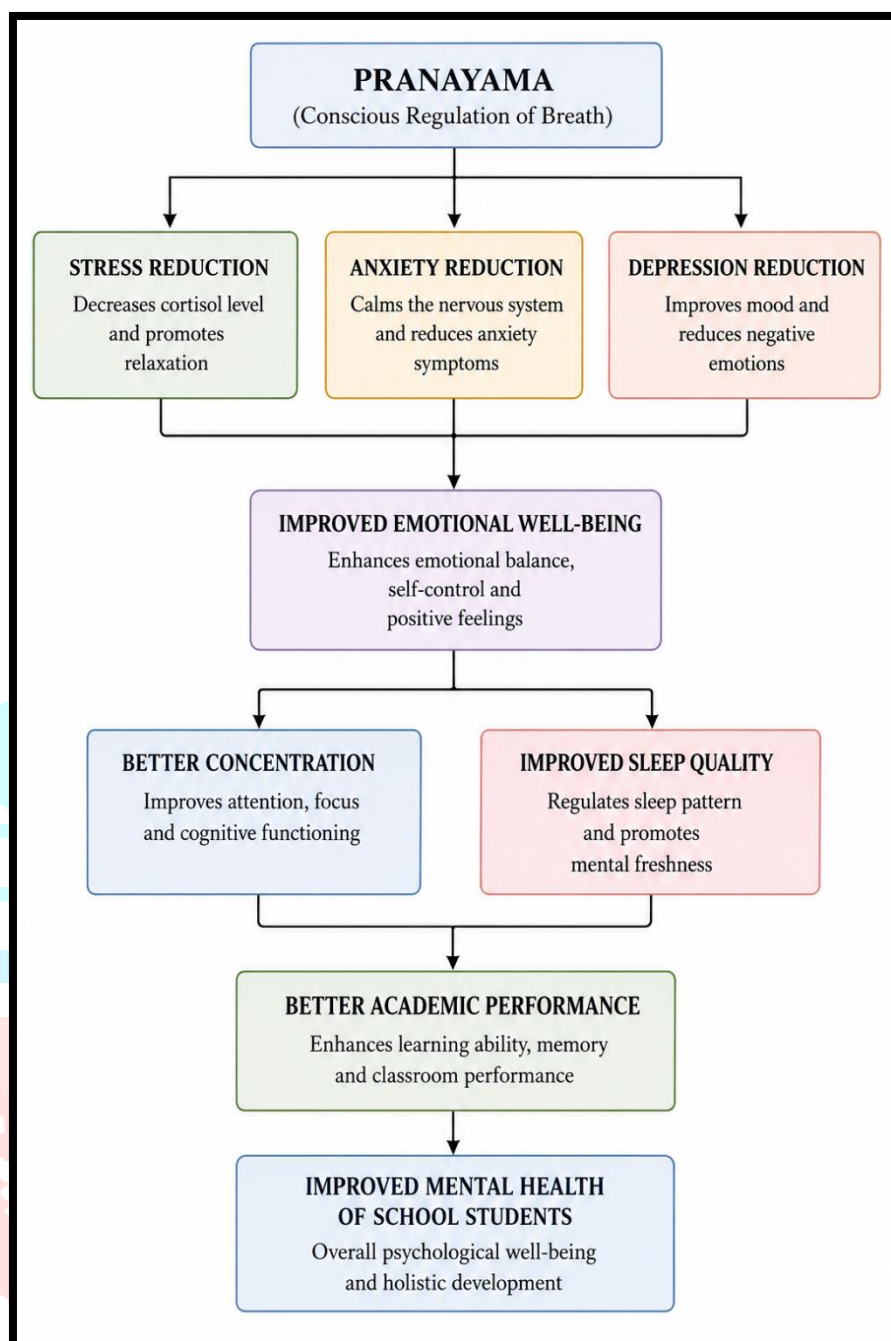


Figure 1: Conceptual representation of the effectiveness of pranayama on the mental health of school students.

V. DISCUSSION

This research aimed at evaluating the effectiveness of pranayama in promoting the mental health of school students by analyzing the literature on the topic. Consistently, all findings pointed out that the regular practice of pranayama has been found to be beneficial for school students as far as their mental health concerns, namely improved stress management, reduced anxiety, increased emotional stability, concentration, better sleep, and overall psychosocial function.

The reviewed studies revealed that controlled breathing exercises such as Anulom Vilom, Nadi Shodhana, and Bhramari Pranayama positively affect the autonomic nervous system by causing relaxation and decreasing physiological reactions related to stress. Consequently, school students were observed to have better ability to regulate their emotions, better coping skills, and better emotional resilience due to the pressure caused by school. Thus, the modern scientific research confirms the yogic perspective that regulated breathing helps to achieve harmony between body and mind.

According to the findings of the current study, the practice of pranayama also had a positive impact on various aspects of cognitive function, such as concentration and academic performance. Improved emotional state and low level of stress made a good psychological background that helped students concentrate better on studying.

Additionally, the practice of pranayama positively affected sleep, which is crucial for memory consolidation and emotion regulation and thus, academic success.

Furthermore, pranayama has also been found to promote the emotional well-being by increasing self-control, emotional awareness, and confidence among school students. In other words, regular practice of pranayama helped students become more emotionally stable and be able to cope with stress and interpersonal relationships in the situation of examination and everyday academic life.

Therefore, pranayama should be used as a preventive approach to school students' psychological problems but not as therapeutic approach after the development of psychological disorders.

Even though the results of the current research point out to the significant benefits of pranayama for the mental health of school students, the studied papers differ in many aspects such as characteristics of participants, duration of the intervention, and research methods. Therefore, further research should involve large-scale and multicenter longitudinal studies with school students of various backgrounds.

Overall, the results of the current research show that pranayama is an efficient, safe, economical, and culturally appropriate way to improve the mental health of school students. Therefore, pranayama should be integrated into daily school routine of school students.

Table 1: Effects of Pranayama on Mental Health of School Students

Mental Health Dimension	Observed Effect of Pranayama	Educational Significance
Stress Management	Reduced perceived stress and improved relaxation	Better coping with academic pressure
Anxiety	Decreased anxiety and emotional tension	Increased confidence and emotional stability
Depression and Mood	Improved mood and reduced negative emotions	Enhanced psychological well-being
Emotional Well-being	Better emotional regulation and resilience	Improved interpersonal relationships
Concentration	Enhanced attention, memory, and focus	Improved classroom learning and academic performance
Sleep Quality	Improved sleep patterns and mental freshness	Better cognitive performance and emotional balance
Overall Mental Health	Improved psychosocial well-being and resilience	Supports holistic development of school students

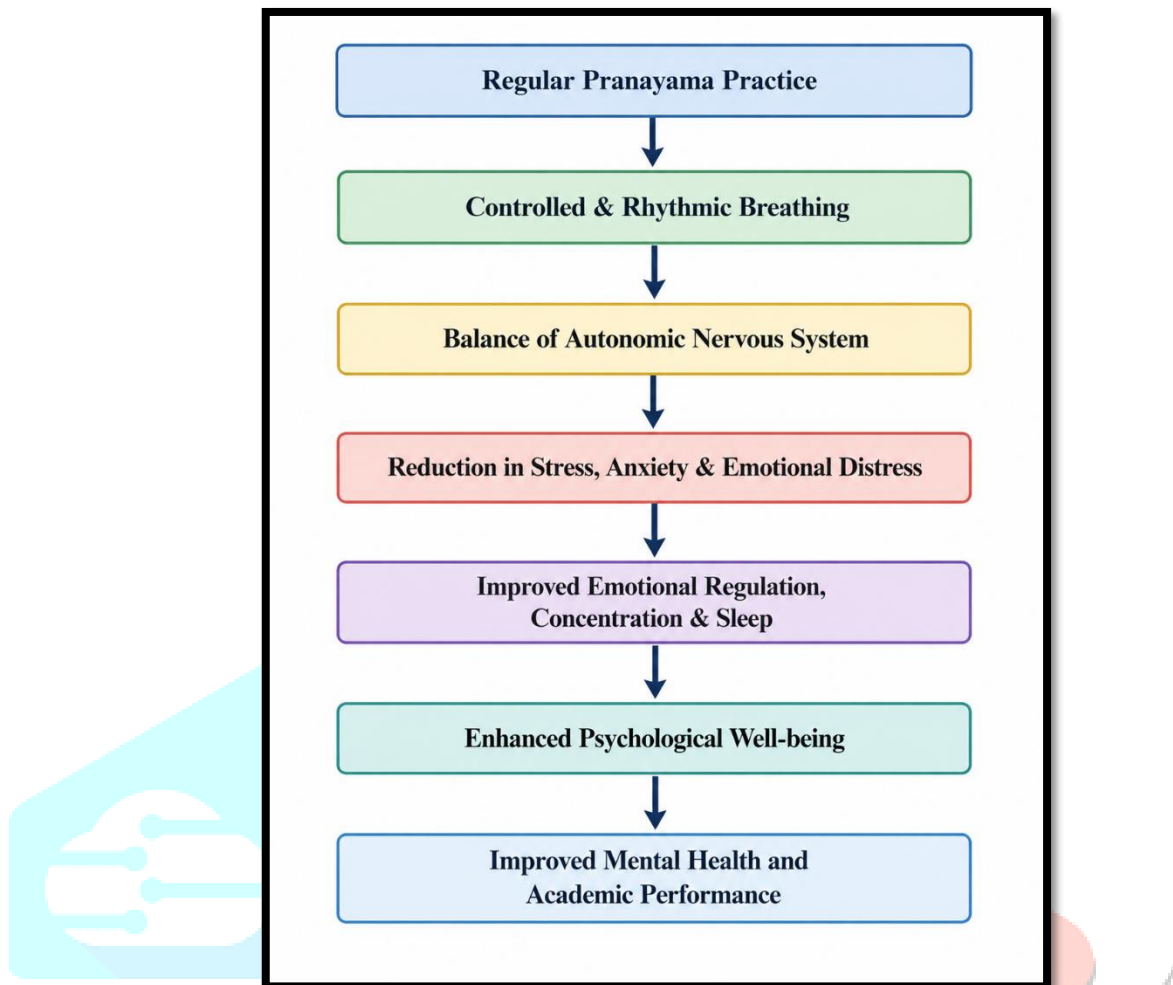


Figure 2: Proposed mechanism of the effect of pranayama on the mental health of school students.

VI. CONCLUSION

The importance of mental health cannot be overlooked when considering the development, education, and welfare of school-going students. Due to increased incidence rates of mental issues such as stress, anxiety, emotional disturbances, and others among school students, there is a need for a mental health intervention method that is effective and easy to implement. According to the results of the current study, pranayama is an effective practice of yoga that helps in improving mental health in school students by reducing stress, anxiety, and emotional disturbances and enhancing concentration, emotional regulation, quality of sleep, and overall well-being of individuals.

Pranayama is a practice that creates a balance in the functioning of autonomic nervous system, improves the cognitive functioning of students, and increases their ability to deal with the problems that arise during studying. Owing to its simplicity, safety, low cost, and cultural context, pranayama can easily be conducted by students without using any special facilities and equipment.

Thus, it is an activity with a high level of implementation possibilities as a school-based practice aimed at ensuring holistic health of students and creation of healthy environment for learning. On the basis of the results, it is suggested that educational institutions include pranayama exercises into school programs of health and well-being.

Parents and teachers also should be encouraged to promote practices of yogic breathing as a means of preventing the occurrence of psychological problems and improving the well-being of school students. Future research should be focused on longitudinal and interventional studies that involve the participation of school students in order to prove the effect of different pranayama practices on mental health of students. Such studies will help in creation of evidence-based policies supporting holistic development of school students in India.

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REFERENCES

1. Pradhan, P., & Pramanik, T. N. (2024). Effect of twelve-week yoga intervention on stress and anxiety in school going children. *Physical rehabilitation and recreational health technologies*, 9(2), 74-79.
2. Pandey, K. N. (2025). The effects of yoga on mental health among Indian youth. *International Journal of Applied Research*, 11(4), 343-345.
3. KV, M. S. (2020). Effectiveness of Pranayama for reducing stress among adolescents (12-17 years) of selected high schools at Mangalore. *International Journal of Nursing Education and Research*, 8, 4.
4. Kumar, A., & Kumar, A. (2026). Efficacy of Pranayama Practice in Enhancing Psychosocial Well-being of Adolescents. *Journal of Psychosocial Wellbeing*, 7(1), 54-64.
5. Joseph, D., Beulah, H., Vijayasamundeeswari, P., & Geetha, D. (2017). A Study to Evaluate the Effectiveness of Pranayama on Academic Stress among 10th Standard Students in Selected High Schools at Chennai. *Amarjeet Kaur Sandhu*, 9(1), 46.
6. Kushwaha, J., Thapliyal, V., Sharma, S. K., & Singh, G. (2024). Effect of Pranayama and meditation on emotional intelligence among undergraduate students: a randomized controlled study. *International Journal of Ayurvedic Medicine*, 15(2), 299-308.
7. Lata, M., Mondal, H., Kumar, M., Kapoor, R., & Gandhi, A. (2022). Effect of practicing meditation, pranayama, and yoga on the mental health of female undergraduate medical students: An interventional study. *Cureus*, 14(9).
8. Kumari, A., & Devi, M. (2025). Effects of a Six-Week Breath-Only Pranayama Intervention on Pulmonary Function and Anxiety Among College Students: A Randomized Controlled Trial. *FishTaxa-Journal of Fish Taxonomy*, 36, 76-83.
9. Oka, G. A., Deshmukh, K., Halder, P., Ilanchoorian, D., & Gandhi, A. P. (2025). A systematic review and meta-analysis to determine the effect of pranayama in reducing anxiety and stress in adolescents. *International Journal of Adolescent Medicine and Health*, 37(4), 229-237.
10. Srivastava, S., Goyal, P., Tiwari, S. K., & Patel, A. K. (2017). Interventional effect of Bhramari Pranayama on mental health among college students. *Int J Ind Psychol*, 4(4), 29-33.
11. Chaudhary, A. K., & Kumar, A. (2024). Impact of pranayama exercises on the quality of life perception in students. *International Journal of Yoga and Allied Sciences*, 13(2), 160-167.
12. Acharyya, D., & Mishra, S. (2024). Effect of Asanas, Meditation and Pranayama on Physiological and Psychological Variables of College-level Students. *Indian Journal of YOGA Exercise & Sport Science and Physical Education*, 51-58.
13. Mütze, C., Mitzinger, D., & Haller, H. (2025). Effectiveness of pranayama for mental disorders: a systematic review and meta-analysis of randomized controlled trials. *Frontiers in psychiatry*, 16, 1616996.
14. Anand, A., Patwardhan, K., Singh, R. N., & Awasthi, H. H. (2018). Effects of Pranayama on mental health and physical fitness in healthy University students. *Yoga Mimamsa*, 50(1), 27-30.
15. Tamizhazhagi, R. (2016). *A Study to Assess the Effectiveness of Nadi Shodhana Pranayama on General Wellbeing among Adolescents Studying in Selected School, Tiruvannamalai* (Doctoral dissertation, Vignesh Nursing College, Tiruvannamalai).
16. Sharma, D., & Dogra, D. K. (2024). A Comprehensive Review On The Therapeutic Impact Of Pranayama Practices On Physical And Mental Health. *Journal of Advanced Zoology*, 45.
17. Parajuli, N., Shindhe, M., & Pradhan, B. (2023). Effect of Surya Namaskara (Sun Salutation) on mental health, self-control and mindfulness of adolescent school children. *Complementary Therapies in Clinical Practice*, 50, 101691.
18. Arvinth, N. (2025). Effect of Pranayama on respiratory efficiency and stress levels in adolescent athletes. *Journal of Yoga, Sports, and Health Sciences*, 1-8.
19. Pandey, M., Dwivedi, K., & Behera, N. (2025). Effectiveness of yoga and physical exercises on emotional and behavioral problems and academic performance among Indian adolescents: A randomized trial. *Journal of Emotional and Behavioral Disorders*, 33(4), 222-231.

20. Mandaliya, N., Dave, N., & Tripathi, S. (2024). Effect of Yogasana and Anulom Vilom Pranayama practice on emotional intelligence among yoga teachers training students. *Vidya-A Journal of Gujarat University*, 3(1), 162-168.
21. Mohan, J. A., & Manoharan, V. S. (2024). Effectiveness of Yoga Therapy and Pranayama in Reducing Examination-associated Anxiety among (Tenth) 10th Standard Students in the Selected High Schools at Bangalore, India. *Asian Journal of Medicine & Health Sciences*, 7(2), 137-146.
22. Thiruppathiraja, S., Muthukrishnan, P., Panneerselvam, N. K., Paramasivam, K., & Ravindran, D. V. (2024). A pilot study on the short-term effect of Nadi Shodhana and Bhramari pranayama on stress, anxiety and depression levels amongst high school students during the COVID-19 lockdown. *CCRYN Indian Journal of Yoga & Naturopathy*, 1(1), 30-34.
23. Anand, P. E. (2026). Determine the Effectiveness of Yoga and Pranayama Therapy on Mobile Addiction among Students of Technical Colleges in Bhubaneswar. *International Journal of Pharmacy Research & Technology (IJPRT)*, 16(1), 4236-4244.
24. Sharma, V. K., Trakroo, M., Subramaniam, V., Rajajeyakumar, M., Bhavanani, A. B., & Sahai, A. (2013). Effect of fast and slow pranayama on perceived stress and cardiovascular parameters in young health-care students. *International journal of yoga*, 6(2), 104-110.
25. Widiastini, L. P., Karuniadi, I. G. A. M., & Adhiestiani, N. M. E. (2026). Empowering Elementary School Children Through Yoga Pranayama Exercises: An Effort to Improve Emotion Regulation. *Journal of Community Engagement in Health*, 9(1), 94-102.

