



EFFECT OF YOGASANA AND ANULOM VILOM PRANAYAMA PRACTICE ON EMOTIONAL INTELLIGENCE AMONG YOGA TEACHERS TRAINING STUDENTS

Neha Mandaliya, Dr. Nehal Dave, Shivam Tripathi

Research Scholar, Lakulish Yoga University, Ahmedabad-382481.ndmandaliya143@gmail.com

Associate Professor, Lakulish Yoga University, Ahmedabad-382481
<https://vidwan.inflibnet.ac.in/profile/340490>

Assistant Registrar (Academics), Lakulish Yoga University, shivam.ks.1011@gmail.com,
<https://orcid.org/0000-0003-2287-3825>

Abstract

Background: This study tries to find out the effect of Yogasana and Anulom Vilom Pranayama on Emotional Intelligence among Yoga teacher training students. **Method:** This study included 120 participants of 45 days Yoga Teachers Training Course (YTTC) from Lakulish Yoga University, Ahmedabad. Data were gathered using the “Emotional Intelligence Scale (EIS-sans)” Here research design single group pre-test and post-test was used. For data analysis paired T-test was used. **Results:** The results showed a considerable improvement in emotional intelligence. Mean difference (Pre - Post) is -3.46 & 95% confidence interval: Ranges from -4.10 to -2.81. It means one can be 95% confident that the true mean difference lies within this interval. the low P value ($p < 0.0001$) and the large t-statistic:10.6078. **Conclusion & Findings:** Practicing Yogasana and Pranayama has been shown to enhance Emotional Intelligence, which in turn improves interpersonal relationships both personally and professionally. For a yoga trainer, heightened Emotional Intelligence brings several advantages, such as better understanding nonverbal cues from participants, adjusting behavior to meet their needs, making sound decisions, and fostering respect and affection from students.

Keywords: Classical Hathayoga, Yogasana, Pranayama, Emotional intelligence, Psychology, EIA-SANS, Yoga teachers training course (YTTC) students.

INTRODUCTION

In recent time, the study of Emotional Intelligence has attracted significant attention for its potential influence on various aspects of human life including mental health, cognitive functioning, and overall well-being. Classical Hathayoga have been suggested to have a positive effect on emotional intelligence. Classical Hathayoga is a traditional form of yoga that dates back to ancient India. The practice of Hathayoga have a confection of physical postures (asanas), breathing techniques (pranayama), to achieve a state of balance and harmony in the body and mind. Classical Hathayoga works on one of the key principles of is the belief that the body and mind are interconnected, and that by working on the physical body through asanas and pranayama, one can also achieve mental and emotional well-being. The practice of asanas helps to strengthen and stretch the muscles, improve flexibility, and increase overall physical health. Pranayama, or breath control, is used to calm the mind, increase focus, and bring awareness to the present moment. In addition to the physical and mental benefits, Classical Hathayoga also has a spiritual component. Practitioners believe that through the practice of yoga, one can achieve a deeper connection to the self and to the universe. It is often used as a way to quiet the mind and tap into a sense of inner peace and wisdom. Classical Hathayoga is rooted in ancient texts such as the Hatha Yoga Pradipika and the Gheranda Samhita, which outline the principles and practices of this traditional form of yoga. These texts provide guidance on how to practice asanas, pranayama, as well as insights into the philosophy behind Classical Hathayoga. Anulom Vilom Pranayama, also known as Alternate Nostril Breathing, is a fundamental practice in yoga that involves alternating the breath between the left and right nostrils. This pranayama technique offers several benefits, both physical and mental, and is considered important for overall health. Benefits of Anulom Vilom Pranayama includes balancing subtle energy channels (*Nadis*) which promotes harmony between the mind and body. This Pranayama technique helps soothe the nervous system, alleviating stress and anxiety. The rhythmic, controlled breathing pattern induces a state of relaxation and mental clarity. The practice requires focus on the breath, helping to improve concentration and mental focus. It can be a valuable tool for students,



professionals, and anyone needing to sharpen their mental faculties. Regular practice helps in cleansing the body by removing toxins from the *nadis*. It also promotes better blood circulation. By regulating the breath, Anulom Vilom helps balance the sympathetic and parasympathetic nervous systems, promoting overall well-being. The practice can help manage emotions and reduce mood swings. It creates a sense of calmness and peace, aiding in emotional stability. Anulom Vilom Pranayama is a simple yet powerful practice that can be integrated into daily yoga practice for its wide-ranging benefits. Classical Hathayoga is a comprehensive practice aimed at creating balance and harmony in the body, mind, and spirit. By incorporating physical postures, breathing techniques, and meditation into one's daily routine, practitioners can experience improved physical health, mental clarity, and a deeper sense of connection to the self and the world around them. Emotional intelligence, as a critical component of human well-being and success, has garnered significant attention in recent years, with researchers and practitioners alike exploring various avenues to enhance this essential skill set. One promising area of inquiry is the potential impact of Yogasana and pranayama, a fundamental practice within the Yoga tradition, on emotional intelligence. Expert Erkus, (1994) said that “emotions get socially structured through an assembly of cultural sections. The emotional self-regulation strategies that the individuals use while adapting themselves to their emotions and the concept closely related to the intellectual control is called emotional intelligence”. According to Mayer and Salovey EI can be defined as “The perceiving emotions in order to support for emotional and mental development which keeps successful in life and healthy in general of an individual” (Bar-On, 2006).

LITERATURE REVIEW

Pranayama, the conscious regulation of breath, has been long recognized in Eastern philosophies as a powerful tool for cultivating self-awareness, emotional regulation, and overall psychological well-being (Saini, 2018). The ancient practices of yoga have been found to have a positive effect on various aspects of emotional intelligence, including self-awareness, self-regulation, empathy, and social skills (Nikolaou, 2006). Studies have shown that the regular practice of pranayama can lead to an enhanced ability to recognize and manage one's own emotions, as well as a greater capacity for empathy and effective interpersonal communication (Dogaru, 2022). This is likely due to the physiological and psychological changes that occur during pranayama, such as increased vagal tone, improved heart rate variability, and reduced stress and anxiety (Brown et al., 2005). Mallya et al. (2012) focused on the intrapersonal dimension of emotional intelligence among adolescent girls through the practice of yoga. Premanand et al. (2017) studied the effect of yoga on stress management, a factor of emotional intelligence, among adolescent girls. Yulianti et al. (2021) conducted a quasi-experiment to assess the impact of yoga therapy on emotional intelligence in preschool children. Furthermore, the role of emotional intelligence in relationship satisfaction has also been explored. Galloway et al. (2022) found that time spent practicing yoga positively influenced relationship satisfaction through mindfulness and emotional intelligence. Additionally, the effects of specific yoga interventions on stress levels and emotional intelligence have been studied. Khemka et al. (2011) evaluated the effects of integral yoga practices on psychological and health, while Stec et al. (2023) assessed the impact of Dynamic Surya namaskar on perceived stress and emotional intelligence in Indian school boy students. Overall, these studies highlight the potential benefits of yoga in enhancing emotional intelligence and its various dimensions, such as stress management, intrapersonal skills, and relationship satisfaction. Further research in this area could provide valuable insights into the mechanisms through which yoga influences emotional intelligence and related outcomes. Furthermore, the integration of pranayama into educational settings has been found to have a positive impact on academic performance and self-regulatory behavior in students (Gupta et al., 2015). This suggests that the benefits of pranayama extend beyond the individual and can have a tangible effect on various aspects of an individual's life, including their educational and professional success. Dubovyk et al. (2020) focused on getting the future teachers ready for the development of pupils' emotional intelligence. This highlights the importance of considering the role of educators and mentors in facilitating the potential benefits of Classical Hathayoga and Pranayama on emotional intelligence in educational settings. After extensive review of literature, following four dimensions were finally included in constructing this scale. The first is to understand emotions, which is a person's capacity to identify emotions in one's and others' physical states, feelings, and thoughts. Second is to understand motivation, that is a high achievement drive with the propensity to be confident and hopeful about the future and take initiative. Third one is Empathy, that means ability to recognize oneself with others mentally and understanding a person or thing accurately and figure out how other people feel, understand their point of view, support diversity, know the mood of a group of people, distinguish realities and a tendency to take an interest in other people's lives. Fourth is to handle the relations, means to be able to carry on relations with other person in a better and healthy way. This Emotional Intelligence Scale is made to be used for age ≥ 12 years.



OBJECTIVE OF THE STUDY

The objective of the present research is to examine the impact of Yogasana and Anulom Vilom Pranayama practice on the emotional intelligence amidst yoga teachers training participants.

RESEARCH METHODOLOGY

Sample

The current study used convenient sampling procedures to choose a sample of 120 participants of Yoga Teachers Training Course's (YTTC) four consecutive batches from Lakulish Yoga University, Ahmedabad.

Inclusion criteria

The inclusion criteria for this study comprised healthy individuals of any gender and age ≥ 19 years who have enrolled themselves for Yoga Teachers Training Course to become a yoga trainer or learning yoga for personal well-being.

Exclusion criteria

Participants with physical disabilities who have other major medical complications like recently operated upon and pregnant female were excluded from the study. Additionally, individuals with very chronic illness and mental illness were not considered for inclusion.

INTERVENTION MODULE:

Classical Hathayoga Practice: Here is a general schedule for a four and a half hours yoga class that includes a variety of asanas and Anulom Vilom pranayama with fundamental theory knowledge about Classical Hathayoga. The session is divided into different segments including dynamic asana series, meditative asana practice, pranayama, relaxation break and theory class. Session starts with signature prayer given by Swami Rajarshi Muni. Which includes stanzas from Vedas and Upanishad. This is required to set an intention for the class. Daily practice includes warm-up and standing poses (50-60 minutes) that provides good amount of exercise to various parts of the body that makes the body more flexible and regulates the flow of the vital life force (*Prana*), seated meditative poses (50-55 minutes) promotes calmness, mental focus and physical stability. These asanas pacify the wandering and wavering mind and bring an inner peace. Prone poses, Supine poses, Supine Twist (40-45 minutes) are also included. Deep breathing practice followed by Anulom Vilom pranayama is practiced for 15-25 minutes. Corpse Pose is practiced for 5-10 minutes. At the end gratitude and closing remarks by practical teachers are done. There is a break for 30 minutes to have some light food. Theory session is conducted for an hour (60 minutes) about the fundamental knowledge of Classical Hathayoga. This schedule provides a comprehensive yoga experience. The timings can be adjusted based on the class duration and level of participants' body type and flexibility, strength, stamina and interest.

VARIABLES:

Independent Variable

Classical Hathayoga includes various yogasana practice and Anulom Vilom pranayama and theory knowledge.

Dependent Variable

The emotional intelligence level of Yoga teachers training course (YTTC) participants.

TOOLS:

The following tool were utilized for data collection:

“Emotional Intelligence Scale (EIS-sans)”: The EIS is a questionnaire created by Dr. Arun Kumar Singh and Dr. Shruti Narain to assess an individual's emotional intelligence.

PROCEDURE

A study was conducted involving 120 participants who underwent Yoga teachers training program in which there are daily 3 hours practical session of Yogasana and Pranayama and one hour theory session. In practical session, different Asana postures practice and Anulom Vilom pranayama are being taught and in theory session, fundamental knowledge of yoga is delivered. Theory and practical both are based upon the book ‘Classical Hathayoga’ by Swami Rajarshimuni. On the first day of the program, an emotional intelligence test was administered using an EIS-SANS questionnaire to assess the baseline emotional intelligence of the participants. After 45 days of training, the same emotional intelligence test was conducted again. The results from the initial



and final assessments were then compared to evaluate the impact of the yogasana and pranayama training on the participants' emotional intelligence.

Permission and Consent:

The investigation was conducted with prior approval from the research guide and consent was sought from all individuals to ensure that their participation was voluntary and purely for research reasons.

Establishing rapport:

Rapport was prepared with participants in small, manageable batches to promote comfort and openness.

Administering questionnaires:

To assess emotional intelligence, participants were administered the Emotional Intelligence Scale (EIS- SANS) by Dr. Arun Kumar Singh and Dr. Shruti Narain.

Data Scoring:

After collection, scoring was carried out using the scoring keys supplied in the manuals.

Pre-test Data Collection

The initial data collection served as a pre-test measure of participants' emotional intelligence level.

Interventions

Each participant undertook a 45 days intervention that included practice of yogasana and Anulom Vilom pranayama.

Post-Test Data Collection

Following 45 days intervention, the same questionnaire was completed again to assess post-intervention emotional intelligence level.

Data Organization

The pre-test and post-test data were organized into an Excel sheet, with variables clearly labeled for analysis.

DATA ANALYSIS & INTERPRETATION

Results: Pre and Post data of Emotional Intelligence Scale (EIS-sans) for YTTC participants are shown in table below.

Table No. 1

Data	N	Mean	SEM	SD	t	Level of significance
Pre	120	21.79	0.29	3.15	10.6078	0.0001
Post	120	25.25	0.20	2.24		

The results from paired t-test indicate a very strong statistical difference between the pre- and post-conditions. Here is a detailed summary:

P Value and Statistical Significance:

- **P value:** The two-tailed P value is less than 0.0001.
- **Significance:** This indicates that the difference between the pre- and post-conditions is extremely statistically significant by conventional criteria (typically, a P value less than 0.05).

Confidence Interval:

- **Mean difference (Pre - Post):** -3.46.
- **95% confidence interval:** Ranges from -4.10 to -2.81.
- This means we can be 95% confident that the true mean difference lies within this interval.

Intermediate Values Used in Calculations:

- **t-statistic (t):** 10.6078.
- **Degrees of freedom (df):** 119.
- **Standard error of the difference:** 0.326.



Interpretation:

- The negative mean difference (-3.46) indicates that the post-condition values are generally lower than the pre-condition values.
- Given the extremely low P value (< 0.0001) and the large t-statistic (10.6078), it is highly unlikely that the observed difference is due to random chance.
- The 95% confidence interval (-4.10 to -2.81) does not include zero, further supporting the significance of the difference.

It can be confidently concluded that there is a significant change between the pre- and post-conditions. The statistical evidence strongly supports the hypothesis that the two conditions are different. In conclusion, the null hypothesis, which states that Yogasana and pranayama intervention has no significant effect on emotional intelligence among YTTC participants, is rejected. As a result, it is determined that the yogic intervention has a significant effect on Emotional intelligence.

IMPLICATIONS OF STUDY

Personal Well-being:

- Improved Self-Awareness: Yoga practices often focus on mindfulness and self-reflection, helping individuals become more aware of their emotions and how they influence their thoughts and behaviors.
- Enhanced Emotional Regulation: Techniques learned in yoga, can help individuals manage their emotions more effectively, reducing stress and anxiety.
- Increased Empathy: Yoga encourages a non-judgmental awareness of oneself and others, potentially leading to greater empathy and better interpersonal relationships.

Professional and Academic Performance:

- Better Decision-Making: Enhanced EI can improve decision-making skills by allowing individuals to approach problems more calmly and rationally.
- Improved Leadership Skills: Higher EI is linked to better leadership abilities, including conflict resolution, communication, and team management.
- Academic Success: Students with higher EI often exhibit better academic performance due to improved focus, stress management, and resilience.

Social Implications:

- Improved Relationships: Increased EI can lead to healthier and more satisfying personal and professional relationships by fostering better communication and understanding.
- Community Well-being: As individuals with higher EI are generally more empathetic and socially responsible, this can contribute to a more supportive and cohesive community.

Healthcare Implications:

- Mental Health Benefits: Yoga can serve as a valuable complement to traditional mental health treatments, potentially alleviating symptoms of depression, anxiety, and other emotional disorders.
- Preventive Health: Regular yoga practice might help in preventing emotional and stress-related disorders by promoting a balanced emotional state.

Educational Implications:

- Curriculum Development: Schools and universities might integrate yoga and mindfulness practices into their curricula to enhance students' emotional and mental well-being.
- Teacher Training: Educators could benefit from yoga training to better manage classroom stress and create a more positive learning environment.

Research Implications:

- Further Studies: Positive results may encourage further research into the mechanisms by which yoga affects Emotional Intelligence and other aspects of mental health.
- Holistic Health Models: This study advocates for incorporating holistic practices, such as yoga, into conventional health and wellness programs.

CONCLUSION

The study generally finds that regular practice of yoga has a significant positive impact on emotional intelligence. Yoga practitioners often demonstrate improvements in numerous aspects of Emotional Intelligence like self-



consciousness, motivation, empathy, self-monitoring and social skills. Participants who practiced yoga demonstrated better emotional regulation, including a greater ability to manage and respond to emotional challenges more calmly and effectively. Due to the mindfulness and introspection inherent in yoga practices, one often leads to heightened self-awareness and greater empathy towards others. Yoga benefits physical health and also significantly serves to emotional and psychological well-being. This supports the inclusion of yoga in holistic health programs. The findings suggest that yoga can be a valuable tool in mental health interventions, helping to reduce symptoms of depression, anxiety, and other emotional disorders. The study recommends regular yoga practice as part of a daily routine to reap its benefits on emotional intelligence and overall well-being.

LIMITATIONS OF THE STUDY

While the findings are encouraging, the study carries significant limitations as under:

Sample Size: The study used a small sample size of 120 participants from Lakulish Yoga University, Ahmedabad, which can be a restriction of the findings' generalizability. Further research aiming at bigger groups is required to corroborate these results.

Short Duration: The intervention lasted 45 days. Long-term research is needed to understand the long-term effects of yogasana and pranayama practice on emotional intelligence.

Control Group: There is no control group in present study. So, to remove out placebo effects or other external factors that may have esteem the outcomes of the study is difficult. To draw more robust conclusions, future study should include a control group.

FURTHER SCOPE OF STUDY

Further Research: It encourages further research to explore the mechanisms behind yoga's impact on emotional intelligence and to confirm these findings in different populations and settings.

Comparative studies: Comparison of the efficacy of yogasana and pranayama practice on emotional intelligence and other Gym exercises on emotional intelligence.

Longitudinal studies: Conduct long-term research to see whether the same benefits can be sustained over time. Assess the need for follow-up.

Psychophysiological studies: Investigate the effect of yogasana and pranayama on physical abilities and flexibility as well as other psychological mechanisms.

Tailored intervention: Create personalized lists of yogasana and various pranayama for particular health challenges and diseases for individuals and measure the outcomes.

CONFLICT OF INTEREST

The authors acknowledge no conflicts of interest. The content of the manuscript is approved and reviewed by all co-authors. Also, there are no financial interests to disclose. We certify that this submission is original work. Any other publication is not currently reviewing this work.

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REFERENCES

1. Bar-on, R. (2006). The Bar-On model of emotional intelligence. Special Issue on Emotional Intelligence, *Psicothema* 17.
2. Bashir, H. El., Dekair, Lubna H., Mahmoud, Y., & Ben-Omran, T. (2015). Neurodevelopmental and Cognitive Outcomes of Classical Homocystinuria: Experience from Qatar. *JIMD reports*, 21, 89-95
3. Brown RP, Gerbarg PL. (2005) Sudarshan Kriya yogic breathing in the treatment of stress, anxiety, and depression. Part II—clinical applications and guidelines. *J Altern Complement Med*.
4. Bru-Luna, L. M., Martí-Vilar, Manuel., Merino-Soto, César., & Cervera-Santiago, José L. (2021). Emotional Intelligence Measures: A Systematic Review. *Healthcare*.
5. Ciccarelli, S.E. and Meyer, G. E. (2006). *Psychology*. Prentice Hall Higher Education.
6. Dubovyk, Svitlana., Mytnyk, Alexander., Mykhalchuk, Nataliia O., Ivashkevych, E., & Hupavtseva, Nataliia. (2020). Preparing Future Teachers for the Development of Students' Emotional Intelligence. *Journal of Intellectual Disability - Diagnosis and Treatment*.
7. Erkus, A. (1994). *Dictionary of psychological terms*. Ankara: Doruk Publishing House.
8. Fincham, G.W., Strauss, C., Montero-Marin, J. (2023) Effect of breathwork on stress and mental health: A meta-analysis of randomized-controlled trials.



9. Galloway N, Foulstone A, Lurie J. (2022) Yoga and Couple Relationship Satisfaction: The Synergy Between Mindfulness and Emotional Intelligence. *Int J Yoga Therapy*.
10. Goleman, D. (1995). *Emotional intelligence-Why It Can Matter More Than IQ?* New York: Bantam Books.
11. Gupta S (2016) Emotional Intelligence and Work Life Balance of Employees in the Information Technology Industry. *Arabian J Bus Management Review* 6: 201.
12. Gupta, Abha & Maira, Seema. (2015). *Academic Performance and Therapeutic Breathing*. World Academy.
13. Hellwig, Susan., Roberts, R., & Schulze, Ralf. (2020). A new approach to assessing emotional understanding. *Psychological assessment*.
14. Hyde, Pethe and Dhar (2001). *Emotional Intelligence Scale*. Agra: National Psychological Corporation.
15. Jha, I. P., Awasthi, R., Kumar, Ajit., Kumar, Vibhor., & Sethi, Tavpritesh. (2020). Learning the Mental Health Impact of COVID-19 in the United States with Explainable Artificial Intelligence: Observational Study. *JMIR Mental Health*, 8.
16. Khemka S., Nagendra R, Alex H (2011) Effect of integral yoga on psychological and health variables and their correlations. *Int J Yoga*.
17. Kumar GS. (2013) Yoga in promotion of health: Translating evidence into practice at primary healthcare level in India. *J Family Med Prim Care*.
18. Mayer, J. D. and Salovey, P. (1995). Emotional intelligence and the construction and regulation of feelings. *Applied & Preventive Psychology*, 4(3), 197-208.
19. Mayer, J. D., and Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence*, 17(4), 433-442.
20. P. Salovey & D. Sluyter (Eds.) *Emotional development and emotional intelligence: Implications for educators*, 3-31, New York: Basic Books
21. Pham, T., Ducro, C., & Luminet, O. (2010). Psychopathy, Alexithymia and Emotional Intelligence in a Forensic Hospital. *International Journal of Forensic Mental Health*.
22. Premanand, V., Mallya, Disha. (2017). Effect of yoga on stress management among adolescent girls, *Indian Journal of Positive Psychology*.
23. Salovey, P. and Mayer. J. D. (1990). Emotional intelligence. *Imagination, Cognition & Personality*, 9, 185-211.
24. Singh, A. K. (2013). *Tests, Measurements and Research Methods in Behavioral Sciences*. Patna: Bharti Bhawan Publishers & Distributors.
25. Stec K, Kruszewski M, Leon C, (2023) Effects of Suryanamaskar, an Intensive Yoga Exercise Routine, on the Stress Levels and Emotional Intelligence of Indian Students. *Int J Environ Res Public Health*, Feb 6;20(4).
26. Svitlana H., Dubovyk, Alexander Y., Mytnyk H, Nataliia O., (2020) *Journal of Intellectual Disability - Diagnosis and Treatment*.
27. Yulianti y. (2021) The Effect of Child Yoga Therapy in Increasing Emotional Intelligence of Preschool Children at Perintis Geres Kindergarten. *Journal of holistic and health science (jhhs)*.
28. Zampetakis, Leonidas A. (2011). Chapter 11 The Measurement of Trait Emotional Intelligence with TEIQue-SF: An Analysis Based on Unfolding Item Response Theory Models.
29. Zyl, V., & Casper, J. (2014). The psychometric properties of the Emotional Quotient Inventory 2.0 in South Africa. *Sa Journal of Industrial Psychology*.