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Research Paper

Impact of Pranayama Practice in Enhancing Cognitive Ability of School Going Adolescences

Arvind Kumar[1]*, Anand Kumar[2], Pradeep Kumar[3]

ABSTRACT

Adolescence is a transition phase and a period of growth between childhood and adulthood. Pranayama is the ancient Ayurveda practice and a kind of breath regulation process. This is a powerful, natural, and scientifically supported approach to improving adolescent mental health. Aims- To evaluate the application of 'Yogic Pranayama' on academic performance in relation to Cognitive Ability (Awareness, Memory, Understanding, Reasoning Ability, Problem-Solving Ability) of boys student. Materials and Methods: This is experimental research, 240 adolescents between the age group 14-16 were randomly selected and divided into two equal groups (control and experiments). Data were collected using Cognitive Ability Battery which is grouped into five different dimensions- Awareness, Memory, Understanding, Reasoning Ability, Problem-Solving Ability. Results Pranayama is useful and cost-effective approach. Eight weeks of pranayama practice significantly enhance the cognitive ability of adolescence especially in the area of awareness, memory, understanding, reasoning ability, problem-solving ability on experiment group. Conclusion: Pranayama practice assists in studying, enables faster comprehension, improves memory and teaches children a very important life skill how to calm themselves, help to boost confidence and self-esteem and helps in improving attention span and in focusing on a given task of the students.

Keywords: *Pranayama, Students, Awareness, Memory, Understanding, Reasoning Ability, Problem-Solving Ability*

Pranayama is an ancient breath technique that originates from 'yogic practices' in India. By regular practice of Pranayama, pran shakti is being distributed through the body, invigorates all the seven charkas, purifies the mind and streamlines all the systems of the body thereby increasing the longevity [1]. This is profound "science of breath" (Ayama = the extension; Prana = universal life energy). This breath control provides our body its inner fire (Jathar Agni) and physiologically, serves as an important cleansing agent that carries oxygen to the blood, flushes cellular poisons, strengthens our immunity and improves memory, mental clarity etc. Through the practice of Pranayama (Shitali, Bhramari, Kumbhaka and Anulom-Vilom), person can reach their higher spiritual

[1]Research Scholar, University Department of Psychology, Magadh University, Bodhgaya. Bihar
[2]Senior Assistant Professor and Head, PG Centre of Psychology, Gaya College, Gaya Ji, Magadh University, Bodhgaya, Bihar.
[3]Consultant, Psychiatric Social Work, State Institute of Mental Health, Pt. BDS, UHS, Rohtak, Haryana
*Corresponding Author

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awareness. Pranayama offers an extremely practical tool kit for self-realisation *and* seems to have a significant positive effect on the overall the domain of well -being of adolescence. Kumar and Kumar mentioned that Pranayama is useful and cost-effective approach. Eight weeks of pranayama practice significantly enhance the psychosocial well -being of adolescence especially in the area of emotional well-being, psychological well-being, social well-being, spiritual well-being, self-awareness Well-being, and physical Well-being on experiment group. Pranayama improves focus, health, posture, confidence, and stress control of the adolescence. Schools should include yoga/Pranayam in daily routine. So, that student feels more active, calm, and ready to learn [2].

Adolescence is an essential period of transition from childhood to adulthood and is marked by accelerated physical, neurological and social growth. This is complicated stage and adolescence develops abstract thinking skills. Adolescents face many difficult choices when it comes to school, peers and lifestyle. The health behaviours and lifestyle choices made in this period and affect the long-term health of a person. This is a time period when individuals begin to achieve greater autonomy, life style behaviours are developed and established and ultimately track into adulthood [3,4,5]. It is also a period when health behaviours and social determinants, such as the ability to stay in education, can have lasting impacts on health equity across the life course [6]. Thus, this time period is increasingly recognised as challenging, but also as a window of opportunity to improve/ promote positive health behaviours and consequently reduce the risk of lifestyle-related diseases [7].

Karuna Yoga Vidya Peetham Bangalore based research highlights the critical link between brain function and respiratory physiology. It has mentioned that breath is not only a vehicle for oxygen delivery but also a regulator of autonomic nervous system activity, stress response, and neuroplasticity. This is offering evidence-based, non-pharmacological interventions to improve the cognition level of individual. By improving oxygenation, modulating the nervous system, reducing stress, and enhancing cerebral blood flow, structured breath-work can support cognitive functioning and potentially slow the progression of impairment [8]. Prana vidya practices (PVPs) have been found to be effective in improving intelligence quotient and performance quotient previously. The results suggest that PVPs improve cognitive abilities associated with letter cancelation and block tapping tasks [9]. A study also showed better attention, concentration and improved cognitive functions immediately after performing Bhramari pranayama which might be due to increased alertness and calmness [10]. Several schools and universities in Western countries have begun incorporating Pranayama sessions into their wellness programs. Educators and wellness professionals believe that breathing exercises enhance oxygenation to the brain, regulate the autonomic nervous system, and promote a sense of calm, ultimately contributing to improved mood stability and emotional well-being [11]. Pranayama could be used as an important technique by students prior to their examinations, to reduce their test anxiety and increase their test performance [12]. It has garnered increasing attention in recent years due to its potential therapeutic effects on mental and physical health. However, a lack of age-specific synthesis of its efficacy, especially among adolescents, highlights the need for focused evaluation in this population [13].

The primary objective of this research study is to scientifically evaluate the application of 'Yogic Pranayama' on academic performance in relation to well-being (six different dimensions: emotional well-being, psychological well-being, social well-being, spiritual well-being, self-awareness well-being, and physical well-being) of boys student.

METHODOLOGY

Design:

This was 'experimental research design'('Pre-test and Post-test design').

Sampling Technique- There were total 240 adolescents selected. All participants undergo an initial assessment (the pre-test) to establish a solid baseline. Four schools within the Deo block, Aurangabad Bihar were selected randomly based on their willingness to accommodate daily Yogic Pranayama sessions in their regular schedules. Following this, a simple random sampling method was used to carefully and selects 60 adolescents from each school.

Inclusion criteria: [A] Students who were genuinely interested to participate in the intervention program. [B] Age ranging from 14 to 16 years [C] Average intellectual functioning of participants[D]Students who were able to read and comprehend English and Hindi[E] Male Students of class 10th. [F] Residents of Deo block in Aurangabad district of Bihar.

Exclusion criteria: [A] Family history suggestive of psychiatric illness. [B] History of any substance abuse[C] Participants having co-morbid mental retardation, epilepsy, other neurological and other psychiatric and physical illness. [D] Recent history of any type of training of yoga and other.

Tools for the study

[i]Personal Data Sheet (self-made): A semi structured Performa was prepared by the researcher to collect information about the socio-demographical variables such as age, occupation, religion, etc.

[ii] Cognitive Ability Battery: Madhu Gupta and Bindiya Lakhani developed a battery of cognitive abilities [14]. This is a comprehensive scale and has 40 items which are systematically categorized into five different dimensions: Memory; Awareness; Understanding; Reasoning Ability; and Problem-Solving Ability. For each question there are four options, only one of which is correct. Each correct answer earns 1 point and each wrong answer earns 0 points. All the marks achieved are added together to get the final cognitive ability score. Students with a score of 38 or higher are in the "High" cognitive ability category and students who place in the range of 31-37 are in the "Above Average" cognitive ability category. Students in the Average range (scores of 23-30) and Below Average range (scores of 16-22) also have below average cognitive ability. Students scoring 15 or less are considered to be in the Low range of cognitive ability. Accordingly, students' cognitive ability level is determined based on the scores obtained as High, Above Average, Average, Below Average and Low. The cognitive ability test (CAT) was found to have good psychometric properties.

Intervention Module-[i] Anulom-Vilom Pranayama-The systematic method consists of closing one nostril and taking a deep breath through the other, then closing the other and breathing out through the original nostril [ii] Bhastrika Pranayama-The technique involves quick, rhythmic, and forceful breathing both in and out [iii] Bhramari Pranayama-It is a type of yogic pranayama. Here, sit in a quiet and well-ventilated corner and close the eyes. Place right thumb on ears right at the cartilage, place left thumb on ears left at the cartilage.

Process of the Intervention- After pre assessment, the experiment group (120 students) were given detail education about all three Pranayama after that they were taught each and every

step of Anulom-Vilom Pranayama, Bhastrika Pranayama and Bhramari Pranayama, for 2-3 sessions. After completing the learning practice of intervention module practice session was started. Each practice session was to be 50 minutes. There were total 24 secession of pranayama practiced in the 8 weeks. The experimental group were asked to use the three alternative days before the opening of the school classes for practice with the researcher and use other leave days for practice at home as homework. There was no training for Control group during this time. After 8 weeks, post assessment was done.

Use of Statistical Techniques:

Collected data were analysed systematically using appropriate descriptive and inferential statistical techniques. SPSS (Statistical Package for the Social Sciences) version 22.0 was used to test the hypotheses formulated. Descriptive statistics Mean (M) and Standard Deviation (SD)) were used to determine the score means and ranges for all variables for both the experimental and control groups. The mean scores between the groups and the pre and post intervention changes were analyzed using t-ratios (t-tests) for inferences.

RESULTS

Table 1[A]. Socio-demographic variables of experimental and control Group

Variable		Experimental Group (n=120)	Control group (n=120)
Religion	Hindu	74 (61.70 %)	73 (60.84%)
	Muslim	46 (38.30%)	47 (39.16%)
Occupation	Service	7 (5.83%)	17 (14.17%)
	Business	23 (19.17%)	31 (25.83%)
	Labour	36 (30.00%)	23 (19.7%)
	Farmer	54 (45.00%)	49 (40.83%)
Residence	Rural	86 (71.77%)	76 (63.33%)
	Urban	34 (28.33%)	44 (36-67%)

Table 1A Showed that most of the respondent of experimental group belongs from Hindu religion (61.70%), from rural area (71.77%) and farming/agriculture background (45%) while respondent of control group mostly belongs from Hindu religion (60.84%), from rural area (63.33%) and farming/agriculture background (40.33%)

Table 1B. Mean and SD of age of experimental and control Group

		Mean ± SD
Age	**Experimental Group**	15.06 ± 0.85
	Control group	14.99 ± 0.77

Table 1.B showed that mean age of experimental and control group was 15.06 and 14.99 respectively.

Table-2. Pre intervention difference between experimental and control Group on Cognitive Ability on the area of Memory; Awareness; Understanding; Reasoning Ability; and Problem-Solving Ability

Variable	Control Group mean ±SD	Experimental Group mean ±SD	t	P
Awareness	3.62 ± 1.05	3.42 ± .93	1.58	.12
Memory	3.60±1.44	3.41 ± 1.02	1.36	.17
Understanding	2.76 ±.95	2.82 ± .75	.52	.60

Variable	Control Group mean ±SD	Experimental Group mean ±SD	t	P
Reasoning Ability	3.40 ±.81	3.31 ± .75	.82	.41
Problem-Solving Ability	3.65 ±.93	3.68 ± .92	.20	.83
Cognitive Ability. Total	17.05 ±3.33	116.66±2.93	.96	.33

There were no significant different between experimental and control Group on Cognitive Ability on the area of Memory; Awareness; Understanding; Reasoning Ability; and Problem-Solving Ability

Table-3. Post intervention difference between experimental and control Group on Cognitive Ability on the area of Memory; Awareness; Understanding; Reasoning Ability; and Problem-Solving Ability.

Variable	Control Group mean ±SD	Experimental Group mean ±SD	T	P
Awareness	4.98 ±1.39	6.67 ±198	7.65	.000
Memory	4.81 ±1.31	5.66 ±137	4.89	.00
Understanding	4.41 ±1.04	5.18 ±1.48	4.62	.00
Reasoning Ability	5.44 ±1.20	6.24 ±1.56	4.45	.00
Problem-Solving Ability	5.35 ±1.15	5.91 ±1.17	3.72	.00
Cognitive Ability Total	25.01 ±3.58	12.09 ±3.85	6.98	.00

There were significant difference between experimental and control Group on the domain of cognitive ability on the area of memory, awareness, understanding, reasoning ability and problem-solving ability.

DISCUSSION

Regarding cognitive ability on the dimension of awareness, experimental group has been found significantly better cognitive ability in compare to control group due to the intervention (eight weeks of Pranayama practice). Previous findings were also in support to the present findings. Yackle et al found that simple breathing exercises such as slow and controlled breathing are known to calm the mind and are clinically used to reduce excessive arousal. However, the understanding of the relationship between mind and breath is still incomplete [15]. The Ancient Yoga Tradition, mentioned the fact that the breath and the mind are closely interconnected and their influence is bidirectional [16]. Several studies also emphasized that modern science has just started to confirm and analyse this fact in more detail. Yogic breathing exercises (are known as *Pranayamas*) are considered a form of meditation in itself, as well as a preparation for deep meditation. They promote physical well-being and self-awareness, improve lung and cognitive capacities, reduce blood pressure, anxiety, and other psychosomatic patterns, probably by increasing the parasympathetic tone [17,18,19,20,21].

Regarding cognitive ability on the dimension of memory, experimental group has been found significantly better cognitive ability in compare to control group due to the intervention (eight weeks of Pranayama practice). Previous findings were also in support to the present findings. Sharma et al found that slow and rapid types of pranayama are beneficial for stress reduction and for improving cognitive functions (Sharma et al,2014). It has found that after practicing yoga there was a significant improvement in attention, concentration, and memory. These changes may be due to personality development, higher

concentration, and reduction of distraction thoughts (mind wandering) due to yoga training [22]. Panagar, & Kaur indicated that Super brain yoga improves the *sustained attention* and also it helps students to be physically active [23]. Narang et al. mentioned that after yoga training, there is marked improvement in the attention, memory and concentration of young adults. These improvements are likely attributed to several factors including stress relief, enhanced relaxation, and mitigation of distracting thoughts that result from consistent yoga practice [24]. Pranayama yoga has been proven effective in improving emotional regulation among elementary school students and can be used as a simple, safe, and applicable complementary approach to support mental health in schools [25]. Fatima et al found that Praranama reduces stress, anxiety, improve concentration as well as attention span, improves the working memory, relaxation of mind that is on cognitive function, reduced the blood pressure and heart rate [26].

Regarding cognitive ability on the dimension of understanding, experimental group has been found significantly better cognitive ability in compare to control group due to the intervention (eight weeks of Pranayama practice). Previous findings were also in support to the present findings. Sengupta mentioned that mind-body exercise such as yoga couples sustained muscular activity with internally directed focus, producing a temporary self-contemplative mental state. It also triggers neurohormonal mechanisms that bring about health benefits, evidenced by the suppression of sympathetic activity. Thus, it reduces stress and anxiety, improves autonomic and higher neural center functioning [27]. Zhang highlighted that conscious breathing might promote top-down emotional regulation through the prefrontal cortex network with the limbic system [28].

Regarding cognitive ability on the dimension of reasoning ability, experimental group has been found significantly better cognitive ability in compare to control group due to the intervention (eight weeks of Pranayama practice). Previous findings were also in support to the present findings. Findings indicated that mind-full regulation of breath is not merely a physiological exercise; it also influences mental and emotional states, contributing to improved clarity, calmness, and emotional balance [29,30]. Farha et al. (2022) found that even short-term pranayama practices significantly reduced anxiety and improved mood states in college students [31]. Similarly, Crisan et al. (2025) demonstrated that breathing-based interventions positively impacted emotional recognition and resilience [32]. Yoga helps chronically stressed youth by enhancing their ability to regulate their thoughts and emotions. It brings positive effects on mental and physical health. To cope with stress, it improves the thoughts of youth. Yoga package might be related to a host of positive outcomes, such as decreased negative effects and increased positive effects, self -acceptance and improved self- awareness, reduced symptoms of anxiety, depression, stress and increased attention, concentration, memory power, academic achievement, improved quality of life, and overall well-being of adolescent students [33].

Regarding cognitive ability on the dimension of reasoning ability, experimental group has been found significantly better cognitive ability in compare to control group due to the intervention (eight weeks of Pranayama practice). Previous findings were also in support to the present findings. The modern world presents increasingly complex challenges that require advanced problem-solving and critical-thinking skills. Hossain emphasized that Yoga, with its ancient philosophical foundation, offers a holistic approach to managing cognitive and emotional challenges through principles such as balance (Samatva), mindfulness (Smṛti), self-awareness (Svadhyaya), non-attachment (Vairagya), and equanimity (Upeksa). These principles, combined with mindful breathing (Pranayama) and

meditation, provide tools to enhance clarity, focus, and emotional resilience. By reducing mental clutter and fostering a state of inner calm, individuals can engage in deliberate decision-making and creative problem-solving. Ghosh & Ajwani highlights yoga's role in enhancing cognitive abilities, particularly memory retention and problem-solving skills. Through a synthesis of empirical studies and psychological theories, this study demonstrates how regular yoga practice strengthens memory, improves cognitive flexibility, and enhances decision-making and analytical abilities. Findings underscore that yoga, by promoting stress reduction, increasing oxygen supply to the brain, and improving emotional regulation, creates an optimal environment for cognitive growth and problem-solving efficacy. The findings from this study highlight the multifaceted impact of yoga on cognitive functions, including memory retention, problem-solving abilities, emotional regulation, and stress management. Through practices such as pranayama, asanas, and dhyana, yoga enhances neural plasticity, reduces cortisol levels, and fosters emotional balance, contributing to superior cognitive outcomes. The integration of yoga into daily routines offers a sustainable and effective strategy for cognitive enhancement across diverse populations [34]. Pranayama, a traditional yogic practice focusing on breath control, shows promise in positively influencing the cognitive development of school children. Cognitive styles, including attention, memory, problem-solving, and creativity, are crucial for academic and overall growth. Recognizing the significance of cognitive development in school-aged kids, there is a need for holistic approaches beyond traditional education. Scientific literature supports Pranayama's positive effects on physiology and psychology, affecting brain function, neurotransmitters, and stress hormones. Studies consistently report improved attention, memory, and reduced stress levels in children practicing Pranayama. Pranayama's potential impact on cognitive styles lies in its ability to regulate the nervous system, increase blood flow to the brain, and contribute to mood regulation [35]. Srinivas found that After 12 weeks regular practise of pranayama, there is a significant reduction in the time taken for trail making test and also significant improvement in the scores of mini mental state examination. This study shows that, there is a significant improvement of cognition with regular daily practise of pranayama. [36].

CONCLUSION

There were significant improvement has been found after eight-week practice of pranayama on the area of cognitive ability on the domain of memory, awareness, understanding, reasoning ability and problem-solving ability among the school going adolescence. It is universal truth and fact that Pranayama is an ancient Indian approach and frequently practiced with yoga postures and meditation. It strengthens the connection between body and mind of the person, improves flexibility, strength and stamina, reduces negative effects, stress and anxiety, improves sleep and mental clarity, connects with spirituality and self, increase positive effects, self- acceptance and improve self- awareness, concentration, memory power, academic achievement. Lastly, it helps to chronically stressed youth by enhancing their ability to regulate their thoughts and emotions, which help them for enhance and improve students' academic performance.

REFERENCES

[1] Neeraj. Effectiveness of Yogic Techniques in the Management of Stress Among Adolescents. *International Journal of Indian Psychology*.2022; *10(3):* 1740-1747.

[2] Kumar, A., Kumar, A. Efficacy of Pranayam Practice in Enhancing Psychosocial Well-being of Adolescences. Journal of Psychosocial Wellbeing.2026; 7(1):54-64.

[3] Steinberg L. Cognitive and affective development in adolescence. Trends Cogn. Sci.2025; 9:69–74.

[4] Smith C, Goss HR, Issartel J, Belton S. Health Literacy in Schools? A Systematic Review of Health-Related Interventions Aimed at Disadvantaged Adolescents. Children (Basel).2021; 225;8(3):176.
[5] Sawyer S.M., A Afifi R., Bearinger L.H., Blakemore S.-J., Dick B., Ezeh A.C., Patton G.C. Adolescence: A foundation for future health. Lancet.2022;379:1630–1640.
[6] Patton G.C., Sawyer S.M., Santelli J.S., Ross D.A., Afifi R., Allen N.B., Arora M., Azzopardi P., Baldwin W., Bonell C., et al. Our future: A Lancet commission on adolescent health and wellbeing. Lancet.2016;387:2423–2478.
[7] Woods-Townsend K., Leat H., Bay J., Bagust L., Davey H., Lovelock D., Christodoulou A., Griffiths J., Grace M., Godfrey K., et al. Life Lab Southampton. A programme to engage adolescents with DOHaD concepts as a tool for increasing health literacy in teenagers –a pilot cluster-randomized control trial. J. Dev. Orig. Heal. Dis.2018; 9:475–480.
[8] Karuna Yoga Vidya Peetham Bangalore: https://karunayoga.in/breathwork-and-pranayama-therapy-for-cognitive-impairment/ cited on 18.07.2026.
[9] Prabhu P, Gowda P, Chandra G. Effect of Pranavidya practices on cognitive abilities of adolescents: A randomized controltrial. J Appl Conscious Stud .2023;11:12-21.
[10] Latha R, Sarveghna Lakshmi S.Effect of Bhramari Pranayama Practice on Cognitive Functions in Healthy Volunteers. International Journal of Physiology.2022 ;10(4):1-5
[11] Natarajan, K., Pal, P., & Pal, G. K. The Impact of Pranayama on Mental Health Disorders in Young Individuals. *International Journal of Clinical and Experimental Physiology*.2025; *11*(4): 153-154.
[12] Nemati A. The effect of pranayama on test anxiety and test performance. Int J Yoga. 2013.6(1):55-60.
[13] Oka GA, Deshmukh K, Halder P, Ilanchoorian D, Gandhi AP. A systematic review and meta-analysis to determine the effect of pranayama in reducing anxiety and stress in adolescents. Int J Adolesc Med Health.2025; 37(4):229-237.
[14] Gupta, M. and Lakhani. B. Manual of Cognitive ability Test. National Psychological Corporation, Agra.2018.
[15] Yackle K, Schwarz LA, Kam K, Sorokin JM, Huguenard JR, Feldman JL. Breathing control center neurons that promote arousal in mice. Science.2017;355:1411–5.
[16] Gilbert C. Yoga and breathing. J Bodyw Mov Ther.1999; 3:44–54.
[17] Thanalakshmi J, Maheshkumar K, Kannan R, Sundareswaran L, Venugopal V, Poonguzhali S. Effect of Sheetali pranayama on cardiac autonomic function among patients with primary hypertension – A randomized controlled trial. Complement Ther Clin Pract. 2020; 39:101138. doi: 10.1016/j.ctcp.2020.101138.
[18] Novaes MM, Palhano-Fontes F, Onias H, Andrade KC, Lobão-Soares B, Arruda-Sanchez T. Effects of yoga respiratory practice (Bhastrika pranayama) on anxiety, affect, and brain functional connectivity and activity: A randomized controlled trial. Front Psychiatry.2020; 11:467.
[19] Sharma VK, M R, S V, Subramanian SK, Bhavanani AB, Madanmohan, Sahai A, Thangavel D. Effect of fast and slow pranayama practice on cognitive functions in healthy volunteers. J Clin Diagn Res.2014;8(1):10-3.
[20] Rocha KK, Ribeiro AM, Rocha KC, Sousa MB, Albuquerque FS, Ribeiro S. Improvement in physiological and psychological parameters after 6 months of yoga practice. Conscious Cogn.2012; 21:843–50.
[21] Brown RP, Gerbarg PL.Yoga breathing, meditation, and longevity. Ann N Y Acad Sci. 2009; 1172:54–62.
[22] Joice PPS, Manik KA, Sudhir PK. Role of yoga in attention, concentration, and memory of medical students. Natl J Physiol Pharm Pharmacol. 2018;8(11):1526-152.

[23] Panagar, T., & Kaur, D. Effect of Super Brain Yoga on Sustained Attention Among Adolescents. *Indian Journal of YOGA Exercise & Sport Science and Physical Education* 2024; *9*(2): 1–7.
[24] Narang D., Dhiman S., Saxena K. Effect of yoga on concentration, memory, attention among young adults. International Journal of AYUSH; 2024: 13 (10); 73-83.
[25] Widiastini LP , Karuniadi GAMK , Adhiestiani NME. Empowering Elementary School Children Through Yoga Pranayama Exercises: An Effort to Improve Emotion Regulation.Journal of Community Engagement in Health.2026;9(1):94-102.
[26] Fatima J, Raza S.T., Khatoon R, Singh S. Effect of Bhramari Pranayama on Healthy Volunteers: A Systemic Review. Era J. Med. Res.2024; 11(1): 76- 84.
[27] Sengupta P. Health Impacts of Yoga and Pranayama: A State-of-the-Art Review. Int J Prev Med.2012;3(7):444-58. PMID: 22891145; PMCID: PMC3415184.
[28] Zhang W, Ouyang Y, Tang F, Chen J, Li H. Breath-focused mindfulness alters early and late components during emotion regulation. Brain Cogn.2019;135:103585. doi: 10.1016/j.bandc.2019.103585.
[29] Epe J., Stark R., Ott U. Different effects of four yogic breathing techniques on mindfulness, stress, and well-being. OBM Integrative and Complementary Medicine. 2021; 6(3): 1–21.
[30] Joshi K., Patil S., Gupta S., Khanna R. Role of pranayma in emotional maturity for improving health. Journal of Medical Pharmaceutical and Allied Sciences.2022; 11(2): 4569–457.
[31] Farha M. N., Sultana M., Subhadra S. *Journal Homepage: www. journalijar. Com. 20222;* cited on 18.07.2026.
[32] Crișan A. F., Pescaru C. C., Maritescu A., Carunta V., Stoicescu E. R., Oancea C., Amăricăi E., Onofrei R. R. A. 14-week structured breathing program: An investigation into its impact on psychological health parameters in university students. BMC Public Health.2025; 25(1):1395. 10.1186/s12889-025-22585-8.
[33] Mala V. Adolescent student's problems and yoga as a preventive measure. Journal on Educational Psychology.2018; 11(4): 1-7.
[34] Santimoy Ghosh S., Ajwani D. International Journal of Advanced Research in Science, Communication and Technology (IJARSCT) International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal.2024; 4 (6): 244-48.
[35] Girisha S., Kittur R. Impact of pranayama on cognitive styles of school children. Journal of Emerging Technologies and Innovative Research.2023;10(10):160-63.
[36] Srinivas, Padmaja, Bhagyalakshmi. Effect of Pranayama on cognition and other higher mental functions. Persepective in Medical Research. 2019;7(2):50-55

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Conflict of Interest
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